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

In the Matter of	)	
	)	
Telecommunications Relay Services and	)	CG Docket No. 03-123
Speech-to-Speech Services for	)	
Individuals with Hearing and Speech Disabilities	)	
	)	
E911 Requirements for IP-Enabled Service	)	WC Docket No. 05-196
Providers	)	

REPORT AND ORDER AND FURTHER NOTICE OF PROPOSED RULEMAKING

Adopted: June 11, 2008 **Released: June 24, 2008**

Comment Date: [21 days after publication in the Federal Register]
Reply Comment Date: [36 days after publication in the Federal Register]

By the Commission: Chairman Martin and Commissioners Copps, Adelstein and Tate issuing separate statements.

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I. INTRODUCTION

1. In this *Report and Order* (*Order*), we adopt a system for assigning users of Internet-based Telecommunications Relay Services (TRS),[1] specifically Video Relay Service (VRS)[2] and Internet Protocol (IP) Relay,[3] ten-digit telephone numbers linked to the North American Numbering Plan (NANP).[4] The numbering system adopted herein will further the functional equivalency mandate by ensuring that Internet-based TRS[5] users can be reached by voice telephone users in the same way that voice telephone users are called. The measures we adopt today also are intended to ensure that

[1] TRS, created by Title IV of the Americans with Disabilities Act of 1990, enables a person with a hearing or speech disability to access the nation's telephone system to communicate with voice telephone users through a relay provider and a Communications Assistant (CA). *See* Pub. L. No. 101-336, § 401, 104 Stat. 327, 336–69 (1990); 47 U.S.C. § 225; 47 C.F.R. § 64.601 *et seq.* (implementing regulations).

[2] VRS is an Internet-based form of TRS that allows individuals with hearing or speech disabilities to communicate using sign language through video equipment. The video link allows the CA to view and interpret the VRS user's signed conversation, and relay the conversation back and forth between the VRS user and the called party. *See* 47 C.F.R. § 64.601(17); *Telecommunications Relay Services for Individuals with Hearing and Speech Disabilities*, CC Docket No. 98-67, Report and Order and Further Notice of Proposed Rulemaking, 15 FCC Rcd 5140, 5152–54, paras. 21–27 (Mar. 6, 2000) (*2000 TRS Order*).

[3] IP Relay is an Internet-based form of TRS that permits individuals with hearing or speech disabilities to communicate in text using a computer (or other similar device) and the Internet, rather than with a teletypewriter (TTY) and the Public Switched Telephone Network (PSTN). *See 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 (Apr. 22, 2002) (*IP Relay Declaratory Ruling & Second FNPRM*).

[4] The NANP is the basic numbering scheme that permits interoperable telecommunications service within the United States, Canada, Bermuda, and most of the Caribbean. *See Administration of the North American Numbering Plan*, CC Docket No. 92-237, Report and Order, 11 FCC Rcd 2588, 2590, para. 3 (July 13, 1995) (*NANP Order*).

[5] We use the term "Internet-based TRS" herein to refer to both VRS and IP Relay, unless otherwise specified. Although presently there is a third Internet-based form of TRS – IP captioned telephone service (IP CTS) – we will address any issues relating to IP CTS, if appropriate, in a separate order because IP CTS raises distinct technical and regulatory issues. *See infra* note Error: Reference source not found.

emergency calls placed by Internet-based TRS users will be routed directly and automatically to the appropriate emergency services authorities by Internet-based TRS providers. Consistent with the *Interim Emergency Call Handling Order*,[6] we require that the ten-digit numbering plan set forth herein be implemented no later than December 31, 2008. In the accompanying *Further Notice of Proposed Rulemaking* (*Further Notice*), we seek comment on additional issues relating to the assignment and administration of ten-digit telephone numbers for Internet-based TRS.

II. BACKGROUND

2. *Telecommunications Relay Services*. Title IV of the Americans with Disabilities Act of 1990 (ADA) requires the creation of a nationwide TRS program to allow persons with hearing and speech disabilities access to the nation's telephone network.[7] Title IV requires that TRS be available to the extent possible and in the most efficient manner,[8] and that relay services offer access to the telephone system that is "functionally equivalent" to voice telephone services, as reflected in the TRS mandatory minimum standards.[9] The functional equivalency standard serves as the benchmark in determining the services and features TRS providers must offer to consumers.[10] TRS is now available nationwide, twenty-four hours a day, seven days a week, so that persons with hearing and speech disabilities can access the telephone system to make calls to, and receive calls from, voice telephone users. In some circumstances, TRS equipment also permits persons with hearing disabilities to communicate directly with each other (*i.e.*, peer-to-peer or deaf-to-deaf calls).

3. When Congress enacted section 225, relay calls were placed using a text telephone device (TTY) connected to the Public Switched Telephone Network (PSTN). Since then, the Commission has recognized new forms of TRS, including Internet-based forms of TRS such as VRS,[11] IP Relay,[12] and IP CTS.[13]

4. *Uniform Numbering for Internet-Based TRS*. Currently, VRS users do not have a reliable or consistent means by which others can identify or reach them. In contrast to the voice telephone network, Internet-based relay services are not linked to a uniform numbering scheme. Instead of a ten-digit telephone number, VRS users are typically assigned a "dynamic" IP address.[14] As a consequence, it is more difficult to place a relay call to a VRS user, as compared to placing a call to a voice telephone

[6] *See 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, Report and Order, 23 FCC Rcd 5255 (Mar. 19, 2008) (*Interim Emergency Call Handling Order*).

[7] Pub. L. No. 101-336, § 401, 104 Stat. 327, 336–69 (1990); 47 U.S.C. § 225.

[8] 47 U.S.C. § 225(b)(1).

[9] 47 U.S.C. § 225(a)(3); *see also* 47 C.F.R. § 64.604.

[10] *See* 47 C.F.R. § 64.604.

[11] *See 2000 TRS Order*, 15 FCC Rcd at 5152–54, paras. 21–27.

[12] *See IP Relay Declaratory Ruling & Second FNPRM*, 17 FCC Rcd at 7783–84, paras. 10–14.

[13] Captioned telephone service is a form of TRS generally used by someone who can speak and who has some residual hearing. A special telephone displays the text of what the other party is saying, so that the user can simultaneously listen to what is said over the telephone (to the extent possible) and read captions of what the other person is saying. *See 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 (Aug. 1, 2003) (*CapTel Declaratory Ruling*). With IP CTS, the connection carrying the captions between the relay provider and the user is via the Internet, rather than the PSTN. *See Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; Internet-based Captioned Telephone Service*, CG Docket No. 03-123, Declaratory Ruling, 22 FCC Rcd 379, 388, para. 22 (Jan. 11, 2007) (*IP CTS Declaratory Ruling*).

user, because the calling party must ascertain the VRS user's current IP address each time he or she wishes to place a call to that individual.[15]

5. To simplify the process of contacting VRS users, some VRS providers have created their own database of "proxy" or "alias" numbers that link to the IP addresses of their customers, even if a particular customer's IP address is dynamic.[16] While these numbers often resemble telephone numbers, which makes it easier for Internet-based relay users to give their "number" to hearing persons who may wish to call them via VRS, these databases are maintained by the service provider and generally are not shared with other service providers.[17] Therefore, a person desiring to call an Internet-based relay user via the user's proxy number can only use the services of the VRS provider that generates the number,[18] an outcome that is in tension with the *Interoperability Declaratory Ruling and FNPRM*.[19]

6. IP Relay users frequently are assigned other types of unique identifiers, such as an instant-message service and screen-name.[20] Such unique identifiers also make it more difficult to place a relay call to an IP Relay user, as compared to placing a call to a voice telephone user, if for no other reason than they cannot be dialed over a telephone.[21]

7. Recognizing the need for a uniform numbering system for Internet-based TRS, the Commission previously sought comment in May 2006 on the "feasibility of establishing a single global database of proxy numbers for VRS users that would be available to all service providers, so that a hearing person can call a VRS user through any VRS provider, and without first having to ascertain the VRS user's current IP address."[22] The Commission requested comment on technical and economic issues relating to the establishment of a numbering scheme, including the "need for standard protocols so that

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[14] Because there are more Internet users than possible IP addresses, Internet service providers generally assign a temporary "dynamic" IP address to a computer. Dynamic addressing generally assigns an available address to the computer each time a connection is established. *See* Ray Horak, *Communications Systems and Networks* (3rd ed.) at 489 (2002). By contrast, a "static" IP address is a number assigned to a computer by an Internet service provider as a permanent Internet address.

[15] *See Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing Disabilities*, CG Docket No. 03-123, Declaratory Ruling and Further Notice of Proposed Rulemaking, 21 FCC Rcd 5442, 5447, para. 12 (May 9, 2006) (*Interoperability Declaratory Ruling and FNPRM*); *see also Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, Notice of Proposed Rulemaking, 20 FCC Rcd 19476, 19481–82, paras. 13–14 (Nov. 30, 2005) (*VRS/IP Relay 911 NPRM*).

[16] *Interoperability Declaratory Ruling and FNPRM*, 21 FCC Rcd at 5459, para. 46.

[17] *Id.*

[18] *Id.* at 5459–60, para. 46.

[19] In the *Interoperability Declaratory Ruling and FNPRM*, we ruled that a VRS provider that restricts the use of its equipment or service so that a VRS user cannot use such equipment or service to place or receive a call through a competing VRS provider is ineligible for compensation from the Interstate TRS Fund. *See id.* at 5454, para. 29. Such a practice, we concluded, violates section 225(a)(3)'s functional equivalency mandate and is inimical to the public interest. *Id.* at 5454–56, paras. 30–36.

[20] *See* Sorenson Refresh Comments at 8–9 (noting that "IP Relay addresses are often associated with a screen name, or some identifier other than an IP address").

[21] When IP Relay is made available through a simple web interface, *see, e.g.*, http://www.sprintip.com, users are even more difficult to reach given that the user may not need to provide any identifying information (such as a user login name) before initiating a call.

[22] *Interoperability Declaratory Ruling and FNPRM*, 21 FCC Rcd at 5460, para. 47.

the database system can work with all VRS equipment and services."[23] The Commission also sought comment on "whether there are aspects of proxy numbers that are dependent on functionalities outside of a database, such as functionalities in the user's equipment," as well as any other technical issues commenters may have deemed relevant to the Commission's inquiry.[24]

8. In addition to seeking comment on the use of proxy numbers, the Commission sought comment on assigning Internet-based TRS users uniform and static end-point numbers linked to the NANP so that the numbers will remain constant and thereby provide Internet-based TRS users a reliable and consistent means by which they may receive calls from non-TRS users.[25] The Commission also sought comment on the maintenance and operation of such a database, and on the role of the Commission in creating and maintaining the database.[26]

9. In the March 19, 2008 *Interim Emergency Call Handling Order*, the Commission announced its intention to adopt a ten-digit numbering plan for Internet-based TRS in a future Commission order.[27] That same day, and to ensure that the record reflects new technical, economic, and administrative developments related to the implementation of a ten-digit numbering system, the Commission's Consumer & Governmental Affairs Bureau ("Bureau") issued the *Numbering PN*, inviting interested parties to refresh the record on issues relating to the assignment and administration of ten-digit numbering for Internet-based TRS users.[28] The Bureau also sought to refresh the record on other issues related to numbering, including number resource conservation,[29] and the application of the Commission's anti-"slamming" rules,[30] CPNI rules,[31] and local number portability (LNP) rules[32] to Internet-based TRS providers.[33]

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[23] *Id.*

[24] *Id.*

[25] *Id.* at 5460, para. 48.

[26] *Id* at 5460, paras. 49–50. Eight comments and five reply comments were filed with the Commission in response to the *Interoperability Declaratory Ruling and FNPRM*. Commenters generally supported the establishment of a uniform numbering system linked to the NANP for Internet-based TRS users. *See, e.g.*, Comments of AT&T Inc., July 17, 2006 at 2–4; Comments of CSD, July 17, 2006, at 1–9; Comments of Hands On, July 17, 2006 at 1–15; Comments of Sorenson, July 17, 2006 at 2–7; Comments of Sprint Nextel Corporation, July 17, 2006 at 2–4; Comments of Verizon, July 17, 2006 at 1–5.

[27] *See Interim Emergency Call Handling Order*, 23 FCC Rcd at 5257, para. 1.

[28] *See id.* at 5257, 5269, paras. 1, 24; *see also Consumer & Governmental Affairs Bureau Seeks to Refresh Record on Assigning Internet Protocol (IP)-Based Telecommunications Relay Service (TRS) Users Ten-Digit Telephone Numbers Linked to North American Numbering Plan (NANP) and Related Issues*, CG Docket No. 03-123, Public Notice, 23 FCC Rcd 4727 (Mar. 19, 2008) (*Numbering PN*) (seeking to refresh the record on numbering issues for Internet-based TRS users).

[29] *See, e.g., Interoperability Declaratory Ruling and FNPRM*: Comments of Communication Service for the Deaf, Inc. in CG Docket No. 03-123 at 6–8 (July 17, 2006) (addressing numbering-related slamming and LNP issues); *see also* Ex Parte of Hands On Video Relay Services, Inc. in CG Docket No. 03-123 at 2 (Nov. 7, 2007) (asserting that number conservation efforts should not hinder the deployment of a numbering system for Internet-based TRS).

[30] *See* 47 U.S.C. § 258(a); 47 C.F.R. § 64.1120 (slamming restrictions).

[31] *See* 47 U.S.C. § 222; 47 C.F.R. § 64.2001 *et seq*. (CPNI requirements).

[32] *See* 47 U.S.C. § 153(30) (defining number portability); 47 C.F.R. § 52.20 *et seq.* (LNP requirements).

[33] *Numbering PN*, 23 FCC Rcd at 4727–28. Ten comments and twelve reply comments were filed by providers and other entities in response to the *Numbering PN*. More than four hundred individual comments were also filed. Commenters overwhelmingly support Commission adoption of a system for assigning ten-digit telephone numbers to Internet-based TRS users.

10. In the *Interim Emergency Call Handling Order*, the Commission also announced a plan to hold a Stakeholder Workshop addressing ten-digit numbering for Internet-based TRS at the conclusion of the comment cycle established by the *Numbering PN*.[34] The Stakeholder Workshop, which was attended by consumers, providers, vendors, and other interested parties, included presentations and discussions of three principal proposals for implementing a ten-digit numbering system for Internet-based TRS, as filed in the record by NeuStar, Inc., CSDVRS LLC, and AT&T/GoAmerica, Inc.[35] The Stakeholder Workshop, which was webcast and archived for later viewing,[36] also included consumers' perspectives on each of the proposals, and a discussion of technical and operational issues posed by each proposal.[37]

11. *Emergency Call Handling Requirements for Internet-Based TRS*. Under the Commission's emergency call handling requirements, a traditional, TTY-based TRS provider must use a system for incoming emergency calls that "automatically and immediately transfers the caller to an appropriate Public Safety Answering Point."[38] Through a series of orders between 2001 and 2008, the Commission examined the applicability of these requirements to Internet-based TRS and, in particular, assessed the technological challenges associated with determining the geographic location of Internet-based TRS calls.[39] The Commission recognized that because these services use the Internet, rather than a

[34] *See Interim Emergency Call Handling Order*, 23 FCC Rcd at 5257, 5269, paras. 1, 24; *see also FCC to Hold Workshop on Solutions for Implementing Ten-Digit Telephone Numbering for Internet-Based Telecommunications Relay Services on April 29, 2008*, News Release (April 4, 2008); *FCC Releases Agenda for April 29, 2008, Stakeholder Workshop on Ten-Digit Numbering Solutions for Internet-Based Telecommunications Relay Services*, News Release (April 23, 2008) (*April 23, 2008, Stakeholder Workshop News Release*).

[35] *See infra* paras. 47–72; *see generally April 23, 2008, Stakeholder Workshop News Release*.

[36] *See* April 29, 2008 Workshop on Ten-Digit Numbering Plan for Internet-Based TRS, *available at* http://www.fcc.gov/realaudio/mt042908.ram (Workshop Webcast).

[37] *See April 23, 2008, Stakeholder Workshop News Release* (attaching workshop agenda); *see also* http://www.fcc.gov/cgb/dro/workshop_attendees.html (list of workshop participants).

[38] *See* 47 C.F.R. § 64.604(a)(4). We note that, as amended by the *Interim Emergency Call Handling Order*, section 64.604(a)(4) now applies exclusively to TTY-based TRS providers. The emergency call handling requirements applicable to Internet-based TRS providers are now set forth in section 64.605 of the Commission's rules. *See Interim Emergency Call Handling Order*, 23 FCC Rcd at 5275–76, Appendix B.

[39] *See generally Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CC Docket No. 98-67, Order, 17 FCC Rcd 157 (Dec. 31, 2001) (*2001 VRS Waiver Order*) (waiving emergency call handling requirement for VRS for two years); *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CC Docket No. 98-67, Order, 18 FCC Rcd 26309 (Dec. 19, 2003) (extending VRS waiver through June 30, 2004); *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, 12520–21, paras. 111–12 (June 30, 2004) (*2004 TRS Report & Order*) (extending VRS waiver through December 31, 2005); *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, Order, 21 FCC Rcd 14554 (Dec. 15, 2006) (extending VRS waiver through December 31, 2007) (*2006 VRS Waiver Order*); *IP Relay Declaratory Ruling & Second FNPRM*, 17 FCC Rcd at 7789, para. 30 (waiving emergency call handling requirement for IP Relay for one year); *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CC Docket No. 98-67, Order on Reconsideration, 18 FCC Rcd. 4761, 4766, para. 12, and 4770–71, para. 28 (Mar. 14, 2003) (*IP Relay Reconsideration Order*) (extending IP Relay waiver through December 31, 2007); *2007 IP CTS Declaratory Ruling*, 22 FCC Rcd at 391–92, para. 30 & n.100 (waiving emergency call handling requirement for IP CTS until 911 access for the Internet-based forms of TRS is resolved); *see generally 2004 TRS Report & Order*, 19 FCC Rcd at 12594, Appendix E (chart summarizing VRS and IP Relay waivers); *Interim Emergency Call Handling Order*, 23 FCC Rcd at 5255, para. 1 (terminating VRS, IP Relay, and IP CTS waivers, effective May 21, 2008, and adopting interim emergency call handling requirements for Internet-based TRS

telephone and the PSTN, for the link of the call between the calling party and the relay provider, the relay provider does not receive the automatic number identification (ANI) of the calling party.[40] As a result, providers experience difficulty identifying the caller's location and determining the appropriate public safety answering point (PSAP) to call to respond to an emergency.[41] Nonetheless, the Commission has consistently emphasized the importance of access to emergency services for relay users.[42] The Commission therefore determined that a temporary waiver was needed to the extent that these technological challenges hindered providers' ability to "immediately and automatically" place the outbound leg of an emergency call to an appropriate PSAP, as required by the Commission's emergency call handling rule.[43]

12. In the *Interim Emergency Call Handling Order*, the Commission terminated the temporary waivers of the emergency call handling rule, effective May 21, 2008, for VRS, IP Relay, and IP CTS in light of the "present imperative to provide Internet-based TRS users a reliable means of accessing emergency services."[44] The Commission required Internet-based TRS providers to "accept and handle emergency calls" and to access, either directly or via a third party, a commercially available database that will allow the provider to determine an appropriate PSAP, designated statewide default answering point, or appropriate local emergency authority that corresponds to the caller's location, and to relay the call to that entity.[45] The Commission also adopted several interim emergency call handling requirements for Internet-based relay services, finding that these measures are needed to facilitate access to emergency services for consumers of Internet-based relay services, pending the adoption of a longer term solution.[46] In particular, the Commission required Internet-based TRS providers to: (1) implement a system that ensures that providers answer an incoming emergency call before other non-emergency calls; (2) request, at the beginning of every emergency call, the caller's name and location information; (3) deliver to the PSAP, designated statewide default answering point, or appropriate local emergency authority, at the outset of the outbound leg of the call, at a minimum, the name of the relay user and location of the emergency, as well as the name of the relay provider, the CA's callback number, and the CA's identification number, thereby enabling the PSAP, designated statewide default answering point, or appropriate local emergency authority to re-establish contact with the CA in the event the call is disconnected; and (4) in the event one or both legs of the call are disconnected (*i.e.*, either the call between the TRS user and the CA, or the outbound voice telephone call between the CA and the PSAP, designated statewide default answering point, or appropriate local emergency authority), immediately re-establish contact with the TRS user and/or the appropriate PSAP, designated statewide default answering

providers).

[40] *See, e.g., 2004 TRS Report & Order*, 19 FCC Rcd at 12522, para. 117.

[41] *Id.*; s*ee also IP Relay Declaratory Ruling & Second FNPRM*, 17 FCC Rcd at 7789, para. 30 (recognizing that, without ANI of the calling party, IP Relay provider petitioner could not provide PSAP with information regarding the calling party's location).

[42] *See, e.g., VRS/IP Relay 911 NPRM*, 20 FCC Rcd at 19477, para. 1 (emphasizing the need for a solution providing direct, automatic access to emergency services via VRS and IP Relay); *IP Relay Declaratory Ruling & Second FNPRM*, 17 FCC Rcd at 7789, para. 30 (urging IP Relay providers to develop a method by which they can automatically provide critical emergency information to an appropriate PSAP).

[43] *See, e.g., 2001 VRS Waiver Order*, 17 FCC Rcd at 162, para. 13 (granting temporary waiver of emergency call handling requirement for VRS providers).

[44] *See Interim Emergency Call Handling Order*, 23 FCC Rcd at 5265–66, para. 16.

[45] *See id.*; 47 C.F.R. § 64.605 (setting forth additional operational standards applicable to Internet-based TRS).

[46] *See Interim Emergency Call Handling Order*, 23 FCC Rcd at 5265–66, 5275–76, para. 16, Appendix B (adopting new section 64.605, setting forth emergency call handling requirements applicable to Internet-based TRS; prior section 64.605 redesignated as section 64.606).

point, or appropriate local emergency authority and resume handling the call, when feasible.[47]

13. In the *Interim Emergency Call Handling Order*, the Commission also announced its intention to adopt in a forthcoming Commission order a Registered Location process, similar to that adopted by the Commission in the interconnected VoIP context.[48] The Commission stated that a Registered Location procedure constitutes "[a] critical component of an E911 solution for Internet-based TRS providers," so that a provider may promptly determine an appropriate PSAP, designated statewide default answering point, or appropriate local emergency authority to call to respond to an emergency.[49]

III. DISCUSSION

A. Jurisdiction

14. We conclude that we have the authority to adopt a system for assigning persons using Internet-based TRS ten-digit telephone numbers linked to the NANP pursuant to sections 225 and 251 of the Act. As set forth below, section 225 requires that functionally equivalent TRS be available nationwide, and directs the Commission to adopt regulations to govern the provision and compensation of TRS. Section 251 grants the Commission authority to oversee numbering administration in the United States.

15. *Section 225*. The Commission's authority to adopt a system for the assignment and administration of ten-digit telephone numbers for Internet-based TRS derives from section 225 of the Act.[50] That section instructs the Commission to adopt regulations implementing section 225, including regulations "establish[ing] functional requirements, guidelines, and operations procedures for [TRS],"[51] as well as mandatory "minimum standards" governing the provision of TRS.[52] Section 225 also requires TRS to offer service "in a manner that is functionally equivalent to the ability of an individual who does not have a [hearing or speech disability] to communicate using voice communication services."[53] Throughout its orders, the Commission has relied upon the functional equivalency standard in determining the services and features TRS providers, including Internet-based TRS providers, must offer to consumers.[54] Further, 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 and speech disabilities.[55]

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[47] *See Interim Emergency Call Handling Order*, 23 FCC Rcd at 5268, para. 21.

[48] *See id.* at 5268, para. 22 (citing *IP-Enabled Services; E911 Requirements for IP-Enabled Service Providers*, WC Docket Nos. 04-36, 05-196, First Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 10245, 10271, para. 46 (June 3, 2005) (*VoIP 911 Order*) (describing Registered Location requirement for interconnected voice over Internet Protocol (VoIP) providers)); *see also* 47 C.F.R. § 9.3 (defining "Registered Location" as the "most recent information obtained by an interconnected VoIP service provider that identifies the physical location of an end user").

[49] *See Interim Emergency Call Handling Order*, 23 FCC Rcd at 5268, para. 22.

[50] 47 U.S.C. § 225.

[51] 47 U.S.C. § 225(d)(1)(A).

[52] 47 U.S.C. § 225(d)(1)(B).

[53] 47 U.S.C. § 225(a)(3), (c).

[54] *See, e.g.*, *2000 TRS Order*, 15 FCC Rcd at 5152, para. 23 (recognition of VRS as a form of TRS will make relay services functionally equivalent to voice telephone service for persons whose first language is American Sign Language); *see generally 2004 TRS Report & Order*, 19 FCC Rcd at 12547–48, para. 189 (the requirement of functional equivalency is met by offering service in compliance with the TRS mandatory minimum standards, and these standards will change as technology changes).

[55] 47 U.S.C. § 225(b)(1).

16. The voice telephone system is predicated on the assignment of ten-digit numbers to consumers, and the ability of any telephone user to reach a consumer by dialing that person's particular number. Further, because location and other identifying information is attached to each number, consumers can dial 911 and reach emergency services that can automatically determine the caller's location to respond to the emergency. The same holds true for consumers of the PSTN-based TRS. Voice telephone users can call these consumers via TRS if they know the consumer's ten-digit telephone number, which they provide to the CA when making the relay call. These TRS consumers can also contact emergency services by either dialing 911 directly or by calling a TRS provider; in either case, the caller's location information will automatically be passed to the emergency personnel. This is presently not the case, however, with respect to consumers using the Internet-based forms of TRS. Voice telephone users can call an Internet-based TRS user only if the caller knows the TRS user's current Internet address (or a proxy therefor), and the Internet-based TRS user cannot call emergency services and have location information automatically transmitted.

17. We therefore find that the Commission's rulemaking authority provided in section 225(d) encompasses the authority to adopt a system for assigning Internet-based TRS users ten-digit telephone numbers linked to the NANP to ensure that such consumers have access to functionally equivalent relay service, including the ability to receive calls from voice telephone users and to make emergency calls that will automatically route to an appropriate PSAP. We also find that the Commission has jurisdiction in this context under the authority granted by section 225(a) to ensure that TRS is available to the extent possible and in the most efficient manner to individuals with hearing or speech disabilities.

18. *Section 251.* We also find that we have authority to establish a ten-digit numbering regime for Internet-based TRS and to extend the LNP requirements to Internet-based TRS providers and their numbering partners, based upon the authority that Congress granted this Commission under section 251(e)(1).[56] In section 251(e)(1) of the Act, Congress expressly assigned to the Commission exclusive jurisdiction over that portion of the NANP that pertains to the United States.[57] The Commission therefore has "authority to set policy with respect to all facets of numbering administration in the United States."[58] Our plenary authority over NANP numbering resources gives us authority to require Internet-based TRS providers to provide NANP telephone numbers to their users.[59] We exercise our authority under the Act to ensure that Internet-based TRS users obtain and use NANP telephone numbers in accordance with the ten-digit numbering plan adopted herein.[60] To the extent that an Internet-based TRS provider provides services that offer its customers NANP telephone numbers, both the Internet-based TRS provider and the telecommunications carrier that secures the numbering resource from the numbering administrator subject themselves to the Commission's plenary authority under section 251(e)(1) with respect to those numbers.

19. In addition, we have authority under section 251(b)(2) to impose LNP obligations on the local exchange carrier (LEC) numbering partners of Internet-based TRS providers.[61] Section 251(b)(2) states that all LECs have a "duty to provide, to the extent technically feasible, number portability in accordance with the requirements prescribed by the Commission."[62] The Commission has long held that it has "authority to require that number portability be implemented 'to the extent technically feasible' and that our authority under section 251(b)(2) encompasses all forms of number portability."[63] In addition, we believe we have a separate additional source of authority under Title I of the Act to impose LNP

[56] *Cf. VoIP 911 Order*, 20 FCC Rcd at 10265, para. 33 (relying on the Commission's plenary authority over U.S. NANP numbers, particularly Congress's direction to use that authority regarding 911, to impose 911 obligations on interconnected VoIP providers, given interconnected VoIP providers' use of NANP numbers to provide service). A numbering partner is a carrier that is eligible to receive numbers directly from the NANPA or the Pooling Administrator (PA) and makes such numbers available to its customers through commercial arrangements. *See infra* para. 31.

[57] *See* 47 U.S.C. § 251(e)(1) (providing that "[t]he Commission shall have exclusive jurisdiction over those portions of the North American Numbering Plan that pertain to the United States").

[58] *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers; Area Code Relief Plan for Dallas and Houston, Ordered by the Public Utility Commission of Texas; Administration of the North American Numbering Plan; Proposed 708 Relief Plan and 630 Numbering Plan Area Code by Ameritech-Illinois*, CC Docket Nos. 96-98, 95-185, 92-237, NSD File No. 96-8, IAD File No. 94-102, Second Report and Order and Memorandum Opinion and Order, 11 FCC Rcd 19392, 19512, para. 271 (Aug. 8, 1996) (explaining that by retaining exclusive jurisdiction over numbering policy the Commission preserves its ability to act flexibly and expeditiously).

[59] *See* 47 U.S.C. § 251(e)(1).

[60] *Cf. Telephone Number Requirements for IP Enabled Services Providers; Local Number Portability Porting Interval and Validation Requirements; IP-Enabled Services; Telephone Number Portability; CTIA Petitions for Declaratory Ruling on Wireline-Wireless Porting Issues; Final Regulatory Flexibility Analysis; Number Resource Optimization*, WC Docket Nos. 07-243, 07-244, 04-36; CC Docket Nos. 95-116, 99-200, Report and Order, Declaratory Ruling, Order on Remand, and Notice of Proposed Rulemaking, 22 FCC Rcd 19531, 19544 para. 23 (Nov. 8, 2007) (exercising authority under the Act to ensure that end users maintain an interest in their NANP numbers through the porting process) (*VoIP LNP Order*).

[61] *See* 47 U.S.C. § 251(b)(2); *cf. VoIP LNP Order*, 22 FCC Rcd at 19543–44, para. 23.

[62] *VoIP LNP Order*, 22 FCC Rcd at 19543–44, para. 23.

[63] *Telephone Number Portability*, CC Docket No. 95-116, Fourth Memorandum Opinion and Order on Reconsideration, 14 FCC Rcd 16459, 16466–67, para. 12 (July 16, 1999).

obligations on Internet-based TRS providers.[64]

B. Adoption of a Uniform Ten-Digit Telephone Numbering System for Internet-based TRS

20. As stated above, in the *Interim Emergency Call Handling Order*, we committed to adopting a system for assigning users of Internet-based TRS ten-digit telephone numbers linked to the NANP by second quarter 2008, with implementation to be completed no later than December 31, 2008.[65] To that end, we issued the *Numbering PN*,[66] and received numerous responses from industry, consumer groups, and concerned individuals.[67]

21. The record reflects a general consensus that Internet-based forms of TRS should have a uniform numbering system to facilitate interoperability between deaf and hearing users and to support comprehensive E911 service.[68] There is further consensus that the numbering system should utilize numbers from the NANP.[69] Use of NANP telephone numbers will allow Internet-based TRS users to reach and be reached by both hearing users of the PSTN and other Internet-based TRS users by doing something most Americans take for granted – dialing a ten-digit phone number. Such a system also will help to ensure that persons using Internet-based TRS can promptly access functionally equivalent 911 service.[70]

22. We find that utilization of NANP numbers will best achieve the goal of making Internet-based TRS functionally equivalent to traditional circuit switched telephony, and will provide Internet-based TRS users a reliable and consistent means by which they may receive calls from voice telephone users. We therefore require, consistent with the procedures set forth below, Internet-based TRS providers

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[64] *Cf. VoIP LNP Order*, 22 FCC Rcd at 19544–47, paras. 24–27 (explaining that the Commission has ancillary authority over interconnected VoIP services, and that its assertion of subject matter jurisdiction is reasonably ancillary to the effective performance of the Commission's various responsibilities). *See generally National Cable & Telecomms. Ass'n v. Brand X Internet Services*, 545 U.S. 967, 976 (2005) ("[T]he Commission has jurisdiction to impose additional regulatory obligations under its Title I ancillary jurisdiction to regulate interstate and foreign communications, *see* §§ [47 U.S.C.] 151–161.").

[65] *Interim Emergency Call Handling Order*, 23 FCC Rcd at 5257, para. 1.

[66] *See Numbering PN*, 23 FCC Rcd 4727.

[67] A list of commenters is attached at Appendix A. Numerous individuals also filed brief comments. *See supra* note Error: Reference source not found.

[68] *See, e.g.*, AT&T Refresh Comments at 1; CSDVRS Refresh Comments at 2; TDI Coalition Refresh Comments at 2; Nebraska PSC Refresh Comments at 2–3; Sorenson Refresh Comments at 2; Sprint Nextel Refresh Comments at 1; AG Bell Refresh Reply Comments at 1; AAPD Refresh Reply Comments at 2; Sonny Refresh Reply Comments at 1.

[69] *See, e.g.*, CSDVRS Refresh Comments at 2 ("CSD and CSDVRS enthusiastically support the establishment of a global, uniform ten-digit telephone numbering system for all Internet-based video and text relay users."); Sorenson Refresh Comments at 2 ("[T]he Commission should adopt a uniform numbering system for Internet-based relay services that is integrated with the numbering system used for traditional voice services."); GoAmerica Refresh Comments at 6 ("[T]he Commission should mandate that Internet based TRS providers implement a functionally equivalent numbering system for consumers based on NANP numbers . . . ."); TDI Coalition Refresh Comments at 2 ("Establishing a numbering system linked to the NANP for IP-based relay services is a critical component in achieving functional equivalency for IP based TRS services . . . .").

[70] *See* NENA Refresh Reply Comments at 1 (noting the "critical need for telephone number availability for 9-1-1 purposes for the deaf and hard of hearing community"); Dash Refresh Comments at 2 ("10-digit NANP numbering is a requirement if relay providers are going to successfully interconnect to the existing emergency network."); CSDVRS Refresh Comments at 5 ("Personal ten-digit local telephone numbers will enable relay users to have integrated E9-1-1 support . . . ."); TDI Coalition Refresh Comments at 3.

to assign Internet-based TRS users NANP telephone numbers.[71] We further require Internet-based TRS providers to stop issuing "proxy" or "alias" numbers no later than December 31, 2008.[72]

23. Full connectivity between Internet-based TRS and the PSTN cannot be achieved simply by assigning telephone numbers to Internet-based TRS users. The networks upon which the Internet portion of Internet-based TRS operates require IP addresses rather than NANP telephone numbers for routing. In order to allow calls to be appropriately routed and completed, a mechanism must be created for mapping the telephone numbers assigned to Internet-based TRS users to the IP addresses (or other appropriate endpoint identifiers) used by Internet-based TRS.

24. In light of the foregoing, the Commission must specify two major items in order to establish a uniform ten-digit numbering system for Internet-based forms of TRS: (1) a means for NANP numbers to be assigned to Internet-based TRS users and (2) a central numbering directory mechanism that maps each NANP telephone number assigned to an Internet-based TRS user to the appropriate Internet address.[73]

1. Number Acquisition and Assignment

25. We find that it is most expedient and consistent with our numbering policies for Internet-based TRS users to obtain NANP telephone numbers directly from their Internet-based TRS providers. Internet-based TRS providers may obtain such numbers either: (1) directly from the NANPA or the PA if they are certificated as carriers and otherwise meet the criteria for obtaining numbers; or (2) through commercial arrangements with carriers (*i.e.*, numbering partners). These are precisely the methods of obtaining numbers that are available to providers of interconnected VoIP service and their customers. Finally, Internet-based TRS users and providers of Internet-based TRS will enjoy the full benefits of LNP.

a. Assigning Telephone Numbers to End Users

26. As an initial matter, we determine how Internet-based TRS users are to obtain, or be assigned, telephone numbers. The record reflects that there are a variety of processes which could be employed, which fall generally into three categories: (1) "remote call forwarding," a process whereby Internet-based TRS users obtain service, including a NANP telephone number, from a LEC and forward the number to the appropriate Internet-based TRS provider;[74] (2) Internet-based TRS users obtain NANP telephone numbers directly from a neutral third-party administrator;[75] or (3) Internet-based TRS users obtain numbers from Internet-based TRS providers.[76]

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[71] To the extent that TRS consumers are concerned that they will receive unsolicited telemarketing calls, we note that TRS users may register their numbers with the National Do-Not-Call Registry. *See Rules and Regulations Implementing the Telephone Consumer Protection Act of 1991*, CG Docket No. 02-278, Report and Order, 18 FCC Rcd 14014 (July 3, 2003) (*2003 TCPA Order*). Consumers can add their telephone numbers to the Registry by registering online at www.donotcall.gov.

[72] We acknowledge that certain carriers and Internet-based TRS providers offer, and have issued or assigned to Internet-based TRS providers, numbers that are used to provide toll-free services using non-geographic area codes such as 800, 888, 877 and 866 (toll free numbers). *See, e.g.*, http://www.csdvrs.com (last visited June 10, 2008). This *Order* does not preclude an Internet-based TRS user from choosing to keep a toll free number previously obtained from an Internet-based TRS provider in lieu of obtaining a geographically appropriate number. We seek comment in the *Further Notice* regarding issues involved in the use of toll free numbers by Internet-based TRS users, including whether Internet-based TRS users should be subject to a fee for use of toll free numbers as are hearing users. *See infra* Section IV.A.4.

[73] *Numbering for Internet-based Relay Services*, Report of Alliance for Telecommunication Industry Solutions (ATIS), Washington, D.C., at 9, para. 3.3.1 (Dec. 19, 2007) (ATIS Report).

[74] ATIS Report at 13, para. 4.1.4.

[75] ATIS Report at 13, para 4.1.5.

27. There is little support for the general use of remote call forwarding in the record,[77] and we find it unreasonable to require Internet-based TRS users to subscribe to local exchange service merely to obtain NANP telephone numbers that can be ported to or otherwise utilized by Internet-based TRS providers,[78] especially in light of the fact that subscribers to interconnected VoIP service can obtain numbers directly from their service providers. The record does demonstrate some support for Internet-based TRS users obtaining NANP telephone numbers from a neutral third party administrator.[79] Such an approach has, however, several disadvantages. First, requiring Internet-based TRS users to obtain numbers from a non-service provider is not functionally equivalent to the processes used by voice telephone users and subscribers to interconnected VoIP services. In addition, granting a neutral third-party administrator direct access to numbering resources would not be consistent with the Commission's rules,[80] and although the neutral third party could obtain numbering resources from numbering partners, it would not be economically efficient to inject a middleman into a process that can be implemented directly by Internet-based TRS providers and numbering partners.[81] Finally, utilization of a neutral third party for number distribution would add unnecessary cost and complexity to the implementation process.

28. We find that the best process for Internet-based TRS users to obtain telephone numbers is directly from their Internet-based TRS providers. The record generally supports this approach.[82] Such a process is functionally equivalent to the process by which subscribers to interconnected VoIP, CMRS, and local exchange service obtain numbers.[83] Indeed, even proponents of the neutral third-party process note that some consumers view their Internet-based TRS provider as if it were a telephone company and

[76] ATIS Report at 13, paras. 4.1.1–4.1.3, 4.1.6.

[77] *See* Letter from Julie Miron, Executive Director, CAC, to Marlene H. Dortch, Secretary, FCC, CG Docket No. 03-123 at 6 (filed Apr. 28, 2008) (urging that Internet-based TRS users have "primary responsibility for procuring numbers from their LEC"). NeuStar notes that remote call forwarding can be utilized in geographic areas where carriers are unwilling or unable to provide geographically appropriate numbering resources to interconnected VoIP providers and Internet-based TRS providers. *See* NeuStar Refresh Comments, Attach. at 5. As discussed in greater detail below, we agree that the use of remote call forwarding may be an appropriate temporary "workaround" in those limited cases where numbers are not available to Internet-based TRS providers through a numbering partner. *See infra* para. 41.

[78] *See* AT&T Refresh Comments at 2 ("Because VRS users only need to use NANP numbers for inbound service (calls from hearing individuals), there is no need for the VRS user to purchase a local exchange access line to their premise which is more expensive. . . . The resulting cost for the VRS user is significantly less than the $20 or more per number when purchased individually in conjunction with an access line from the LEC."); GoAmerica Refresh Comments at 18 (criticizing proposal to require Internet-based TRS users to obtain numbers through LECs).

[79] *See* CSDVRS Refresh Comments at 6 ("A single neutral party, rather than VRS providers, should have primary responsibility for assigning and distributing ten-digit local numbers directly to relay users."); TDI Coalition Refresh Comments at 4 (supporting both third-party administrator and TRS provider options); AG Bell Refresh Reply Comments at 1; AAPD Refresh Reply Comments at 3; Sonny Refresh Reply Comments at 2.

[80] *See infra* para. 30.

[81] *See infra* para. 33.

[82] *See* AT&T Refresh Comments at 2–3 (abandoning proposal that Internet-based TRS users obtain numbers from LECs in favor of proposal that users obtain NANP numbers directly from Internet-based TRS providers, who can obtain numbers the same way VoIP providers obtain numbers and can make the numbers available to users at a much cheaper price); Dash Refresh Comments at 6 ("We would suggest that relay providers will likely obtain numbers in a manner similar to smaller VoIP service providers, including through resellers and other avenues outside of direct assignment from an ILEC or even CLEC carriers."); GoAmerica Refresh Comments at 17 ("The most efficient methodology would be for relay providers to make numbers available for consumers."); NeuStar Refresh Comments at 4 (proposing that Internet-based TRS providers obtain NANP numbers as VoIP providers do); Sorenson Refresh Comments at 19 ("Providers will have to assign users with NANP numbers"); TRS Advisory Council Refresh Comments at 1.

therefore expect that they should obtain numbering resources directly from the Internet-based TRS provider.[84]

b. Internet-based TRS Providers' Acquisition of Numbering Resources

29. In light of our decision to have Internet-based TRS users obtain numbers directly from Internet-based TRS providers, we must determine how Internet-based TRS providers are to obtain access to numbering resources. The record reflects three methods: (1) directly from the NANPA or the PA,[85] (2) from a neutral third-party administrator established for the purpose,[86] or (3) from numbering partners through commercial agreements.[87]

30. Only carriers, absent a Commission waiver,[88] may obtain numbering resources directly from the NANPA or the PA. Section 52.15(g)(2) of the Commission's rules limits access to the NANP numbering resources to those applicants that are (1) "authorized to provide service in the area for which the numbering resources are being requested" and (2) "[are] or will be capable of providing service within sixty (60) days of the numbering resources activation date."[89] Allowing only carriers to have direct access to NANP numbering resources helps to ensure that the numbers are used efficiently and to avoid number exhaust and also provides some control over who may access numbering databases and personnel.[90] Thus, to the extent that a provider of Internet-based TRS is licensed or certificated as a carrier under the Act and relevant state law (as appropriate), it may obtain numbering resources directly from the NANPA or PA.[91]

31. We recognize, however, that many, if not all, providers of Internet-based TRS will not be licensed or certificated as carriers. Internet-based TRS providers that have not obtained a license or certificate of public convenience and necessity from the relevant states or otherwise are not eligible to

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[83] *See* GoAmerica Refresh Comments at 17 ("Deaf and hard of hearing users should have the same functionally equivalent choice of obtaining their NANP numbers from the equivalent of voice telecommunications providers—relay service providers."); *see also* AT&T Refresh Comments at 2–3; Dash Refresh Comments at 6; NeuStar Refresh Comments at 4; NeuStar Refresh Reply Comments at 21 ("[S]tandards compliant devices should be able to use [a method] to dial anyone just as a hearing person can.").

[84] CSDVRS Refresh Reply Comments at 5 ("Some consumers who use IP relay or VRS perceive their relay providers to be the equivalent of a telephone company that distributes telephone numbers to voice users.").

[85] ATIS Report at 13, 19, paras. 4.1.1, 4.1.6, 5.1.1.

[86] *Id.* at 13, 20–21, paras. 4.1.3, 4.1.5, 5.1.3.

[87] *Id.* at 13, 19–20, paras. 4.1.2, 5.1.2.

[88] *See Administration of the North American Numbering Plan*, CC Docket No. 99-200, Order, 20 FCC Rcd 2957, 2959, 2961–62, paras. 4, 9 (Feb. 1, 2005) (*SBCIS Waiver Order*). We reiterate the Commission's existing rule of general applicability regarding eligibility for direct access to numbering resources. *See VoIP LNP Order*, 22 FCC Rcd at 19542, para. 20; *Numbering Resource Optimization*, CC Docket No. 99-200, Report and Order and Further Notice of Proposed Rulemaking, 15 FCC Rcd 7574, 7615, para. 97 (Mar. 31, 2000) (*NRO First Report and Order*) (stating that carriers must provide evidence demonstrating that they are licensed and/or certified to provide service prior to accessing numbering resources). We note that petitions seeking waivers similar to the relief granted in the *SBCIS Waiver Order* are pending. *See, e.g.*, *Wireline Competition Bureau Seeks Comment on Qwest Communications Corporation Petition for Limited Waiver of Section 52.15(g)(2)(i) of the Commission's Rules Regarding Access to Numbering Resources*, CC Docket No. 99-200, Public Notice, 20 FCC Rcd 8765 (May 4, 2005). This Order does not in any way prejudge the outcome of the Commission's consideration of those petitions.

[89] 47 C.F.R. § 52.15(g)(2).

[90] *NRO First Report and Order*, 15 FCC Rcd at 7615, para. 97.

[91] *See* 47 C.F.R. § 52.15(g)(2)(i); *see also VoIP LNP Order*, 22 FCC Rcd at 19542, para. 20; *NRO First Report and Order*, 15 FCC Rcd at 7615, para. 97.

receive numbers directly from the NANPA or PA may make numbers available to their customers through commercial arrangements with carriers (*i.e.*, numbering partners). This method has proven successful in the context of interconnected VoIP,[92] is consistent with our numbering rules,[93] and is cost effective.[94] TRS providers can easily obtain numbers from certified carriers the same way interconnected VoIP providers obtain numbers today.

32. In any case, Internet-based TRS providers and their numbering partners shall be entitled to obtain and use numbering resources only to the extent they comply with the requirements of this *Order*. We also remind all parties that telephone numbers are a public resource, not private property.[95] They may not be bought or sold.[96] They may, however, be provided as part of a package of services that includes, for example, interconnection, connectivity, or 911 service.

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[92] *See, e.g.*, NeuStar Refresh Comments, Attach. at 4 ("This model works well in the VoIP environment and would be the same mechanism for providing telephone numbers to relay providers."); *see also* NeuStar Refresh Comments at 4 ("This is exactly the same manner through which most VoIP providers obtain and distribute telephone numbers today."); AT&T Refresh Comments at 2; Sorenson Refresh Comments at 6–7. We disagree with the Nebraska PSC that assigning Internet-based TRS users numbers from a pool of numbers associated with an Internet-based TRS provider could be potentially discriminatory as the only individuals receiving such numbers would be part of the deaf and hard-of-hearing community. Nebraska PSC Refresh Comments at 4. Internet-based TRS service providers will not draw numbers from a pool dedicated to Internet-based TRS, but instead will obtain geographically appropriate numbers from numbering partners that are indistinguishable from numbers provided to subscribers of interconnected VoIP service or traditional local exchange service. The general availability of numbers to Internet-based TRS providers through numbering partners likewise addresses the concern that Internet-based TRS users will be limited to "those providers with numbering resources in the rate center where they reside." *Id.* To the extent a geographically appropriate number is not available to Internet-based TRS providers, one of the "workarounds" discussed in paragraph 41 may be utilized until numbers become available, through numbering partners or number portability. Finally, we disagree with the Nebraska PSC that allowing Internet-based TRS providers to distribute numbers obtained from numbering partners will contribute to numbering exhaust. Internet-based TRS providers, which generally are not certificated as carriers, will have neither the ability nor the incentive to obtain numbers in thousand blocks for each rate center in which they have a Registered Internet-based TRS User. Rather, those providers will be able to obtain as many or as few numbers as they need for each rate center from their numbering partners. *See* NeuStar Refresh Comments, Attach. at 4–5; GoAmerica Refresh Comments at 21 ("[R]elay providers will only have to obtain what [numbers] they need, or in worse case carry a minimal inventory far below the current minimum allocation obtained through NANPA (of 1,000 blocks or larger).").

[93] Our rules require that only carriers that are licensed or certified as carriers under the Act may receive numbering resources. 47 C.F.R. § 52.15(g)(2)(i) (applicants for numbering resources must be "authorized to provide service in the area for which numbering resources are being requested").

[94] *See* AT&T Refresh Reply Comments at 2 ("VRS providers can easily obtain [NANP] numbers from voice service providers . . . and then provide such numbers to relay users at a low price (generally $1 or less per line per month)."); NeuStar Refresh Comments at 13 (noting that the rate for assigning a number from a carrier to an Internet-based TRS provider is "from $0.75 to $0.95 per transaction"). We disagree with CSDVRS's argument that allowing Internet-based TRS providers to obtain and distribute NANP numbers "link[s] numbers and equipment" and is "plainly anti-competitive." CSDVRS Refresh Reply Comments at 13. First, CSDVRS complains that a consumer who obtains a number from one VRS provider is "more than likely" to use that same provider to make outgoing calls. *Id.* at 13 n.12. But even CSDVRS admits that under our interoperability rules that very consumer is "free . . . to make outgoing calls on any provider's network." *Id.* Second, its complaint that VRS providers who can obtain and distribute numbers will "enjoy a substantial competitive advantage," *id.* at 14, is largely mooted by our extension of local number portability to numbers obtained from VRS providers. *See infra* paras. 34–36; CSDVRS Refresh Reply Comments at 14 n.14 (admitting that "users will always be able to port their numbers to [other] providers"); *see also* NeuStar Refresh Reply Comments at 13–14 (explaining that "[s]tandards based equipment" can smooth an Internet-based TRS user's transition from one provider to another).

[95] *See Toll Free Service Access Codes*, CC Docket No. 95-155, Fourth Report and Order and Memorandum Opinion and Order, 13 FCC Rcd 9058, 9061, para. 6 n.14 (Mar. 31, 1998); *Toll Free Service Access Codes*, CC Docket No.

33. In light of record support for, and the demonstrated success of interconnected VoIP providers in, obtaining NANP telephone numbers from carriers, we decline to appoint a neutral third party to obtain numbers from the NANPA or from numbering partners for distribution to providers of Internet-based TRS or Internet-based TRS users.[97] Allowing a third-party administrator direct access to numbering resources is not consistent with general Commission policy – as discussed above, absent a waiver, our rules allow only carriers direct access to NANP numbering resources.[98] Further, the record reflects that a third-party administrator would add "another layer of personnel, process, and cost in the number procurement process."[99]

c. Local Number Portability

34. The record is clear that the ability to port numbers (1) from one Internet-based TRS provider to another, and (2) between Internet-based TRS providers and other entities subject to LNP (such as carriers and interconnected VoIP providers) is a priority in any numbering plan for Internet-based TRS.[100] Accordingly, we find that Internet-based TRS providers and their numbering partners are subject to the same porting obligations, with the sole exception of contributing to meet shared numbering administration costs and LNP costs, as the Commission set forth in the *VoIP LNP Order*.[101]

35. As discussed above, the plenary numbering authority that Congress granted this Commission under section 251(e)(1) provides ample authority to extend the LNP requirements to Internet-based TRS providers and their numbering partners.[102] In addition, we believe we have a separate

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95-155, Notice of Proposed Rulemaking, 10 FCC Rcd 13692, 13702, para. 36 (Oct. 5, 1995) (*Toll Free Access Notice*); *Administration of the North American Numbering Plan*, CC Docket No. 92-237, Report and Order, 11 FCC Rcd 2588, 2591, para. 4 (July 13, 1995) ("These numbers are a public resource, and are not the property of the carriers."); s*ee also, e.g.*, *In re StarNet, Inc*., 355 F.3d 634, 637 (7th Cir. 2004).

[96] *Cf. Toll Free Access Notice*, 10 FCC Rcd at 13697, para. 16 n.41 ("800 Numbers are not to be treated as commodities which can be bought or sold, and no individual or entity is granted a proprietary interest in any 800 number assigned.").

[97] *See* CSDVRS Refresh Comments at 13 ("The ONS will acquire [NANP telephone] number blocks from wholesale carriers . . . and the major local exchange carriers . . . .").

[98] *See supra* para. 30.

[99] ATIS Report at 22; *see also* GoAmerica Refresh Comments at 17–18 ("[T]he third party issuer would have less incentive than relay providers to efficiently distribute numbers and thus should not be the only option available to obtain numbers. . . . [C]reating a third party to manage network connectivity between the PSTN and the various providers would create a potential single point of failure in the networks that could disrupt all calls from hearing to deaf users in the event of a problem."); NeuStar Refresh Reply Comments at 7 (noting that a third-party system is inefficient because it would "force[] Relay Providers to query the [central] database for every call" rather than just a "subset of calls").

[100] *See, e.g*., Dash Refresh Comments at 5 ("Full number portability is required by the concept of functional equivalency as set forth in Section 225 of the Communications Act of 1934, as amended."); NeuStar Refresh Comments, Attach. at 5; GoAmerica Refresh Comments at 15–16; TRS Advisory Counsel Refresh Comments at 2; Sorenson Refresh Comments at 18; TDI Coalition Refresh Comments at 5; AAPD Refresh Reply Comments at 2; *see also* GoAmerica Refresh Reply Comments at 3 ("[A]ll commenters agree that numbers assigned under the Internet-based numbering solution must be portable so that consumers may freely choose their Internet-based TRS default providers.").

[101] *See VoIP LNP Order*, 22 FCC Rcd at 19548–51, paras. 30–37. This order, which became effective shortly before the Nebraska PSC filed its comments, addresses the Nebraska PSC's concerns regarding the number of LNP complaints resulting from the indirect assignment of numbers to interconnected VoIP providers and, now, Internet-based TRS providers. *See* 73 FR 9463 (Feb. 21, 2008) (announcing effective date of March 24, 2008).

[102] *See supra* paras. 18–19.

additional source of authority under Title I of the Act to impose LNP obligations on Internet-based TRS providers.[103] Therefore, by this *Order*, we expand the scope of our LNP rules to include Internet-based TRS providers, so that the full array of obligations relating to the porting of numbers from one service provider to another service provider are applicable when an Internet-based TRS user wishes to port a number, regardless of whether the service providers involved are carriers, interconnected VoIP providers, or Internet-based TRS providers. However, for the sake of clarity, we note that as applied to an Internet-based TRS provider, the rules adopted in the *VoIP LNP Order* require that an Internet-based TRS provider and its numbering partner must facilitate a user's port request to or from another Internet-based TRS provider. This means the Internet-based TRS provider has an affirmative legal obligation to take all steps necessary to initiate or allow a port-in or port-out itself or through its numbering partner on behalf of the Internet-based TRS user, subject to a valid port request, without unreasonable delay or unreasonable procedures that have the effect of delaying or denying porting of the number. Moreover Internet-based TRS providers and their numbering partners may not enter into agreements that would prohibit or unreasonably delay an Internet-based TRS user from porting between Internet-based TRS providers and will be subject to Commission enforcement action for any such violation of the Act and the Commission's LNP rules.[104]

36. To the extent that an Internet-based TRS provider is licensed or certificated as a carrier, that carrier is eligible to obtain numbering resources directly from the NANPA, subject to all relevant rules and procedures applicable to carriers, including LNP requirements. Under these circumstances, the Internet-based TRS provider would not have a numbering partner, and would thus be solely responsible for compliance with the Commission rules at issue here.[105]

37. *Numbering Administration Costs.* Section 251(e)(2) provides that "[t]he cost of establishing telecommunications numbering administration arrangements and number portability shall be borne by all telecommunications carriers on a competitively neutral basis as determined by the Commission."[106] Carriers and interconnected VoIP providers that benefit from LNP generally are required to contribute to meet shared LNP costs.[107]

38. We decline to extend to Internet-based TRS providers the obligation to contribute to meet shared LNP costs at this time. Unlike other providers that benefit from LNP, providers of Internet-based TRS are not permitted to recover their costs from their end users. Rather, Internet-based TRS providers are compensated by the Interstate TRS Fund for the costs of providing relay service. Money in the Interstate TRS Fund is collected from various providers of telecommunications and related services – many of which already contribute to meet shared LNP costs.[108] It makes little sense to require Internet-based TRS providers to contribute to defray shared LNP costs covered by the same providers that ultimately provide the money Internet-based TRS providers will use to make such contributions.

39. *Implementation.* Since the ultimate responsibility for numbers obtained from the

[103] *See supra* note Error: Reference source not found.

[104] *See, e.g., Wireless Number Portability Order*, 18 FCC Rcd at 20975, para. 11 (interpreting the Act's number portability definition to mean that "customers must be able to change carriers while keeping their telephone number as easily as they may change carriers without taking their telephone number with them").

[105] *See VoIP LNP Order*, 22 FCC Rcd at 19542, para. 20 n.62.

[106] 47 U.S.C. § 251(e)(2).

[107] *See VoIP LNP Order*, 22 FCC Rcd at 19551–52, paras. 38–39.

[108] *See generally 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 (Nov. 19, 2007) (*2007 TRS Rate Methodology Order*); *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, Order, 22 FCC Rcd 11706, 11706–08, paras. 1–4 (CGB June 29, 2007) (*2007 Bureau TRS Rate Order*).

numbering administrator is unchanged by this *Order*, there is no need to detail a separate implementation schedule for porting to or from a provider of Internet-based TRS. Thus, consistent with the implementation schedule set forth below, Internet-based TRS LNP must be fully implemented no later than December 31, 2008.[109]

40. *Enforcement.* If any service provider experiences problems with another service provider when attempting to port a consumer's number, or if a consumer experiences problems with porting, we expect the provider or consumer to file a complaint with the Commission.[110] We take very seriously our obligation to effectuate number portability and our oversight of numbering resources. The Commission will act expeditiously to ensure that consumers have the option to switch providers, subject to our LNP rules, without the loss of their telephone numbers or service.

d. Geographically Appropriate Numbers

41. Voice telephone users that subscribe to local exchange service are provided with a geographically appropriate telephone number by virtue of the architecture of the PSTN. In the vast majority of cases, subscribers to interconnected VoIP services likewise have the ability to obtain a geographically appropriate NANP telephone number.[111] In the interest of functional equivalency, and consistent with the recommendations of the ATIS Report, we find that Internet-based TRS users should be assigned geographically appropriate NANP numbers, as happens today for hearing users. We note that there may be unusual and limited circumstances in which an Internet-based TRS provider may not be able to obtain a geographically appropriate number for a particular end user.[112] While we do not expect this to be a common occurrence, Internet-based TRS providers may temporarily employ suitable workarounds in such circumstances, such as the assignment of a number which is reasonably close to the Internet-based TRS user's rate center, or the use of remote call forwarding.[113] Such workarounds may be employed only until a geographically appropriate number becomes available, unless the end user chooses to retain the originally assigned number.[114]

e. "Default Provider" Registration

42. Every provider of Internet-based TRS is required to provide Internet-based TRS users with the capability to register with that Internet-based TRS provider as a "default provider" and provide or port for that user a NANP telephone number.[115] Such registration is required: (1) to allow the Internet-based TRS provider to take steps to associate the Internet-based TRS user's telephone number with their

[109] *See infra* Section III.G.

[110] 47 U.S.C. § 208 (authorizing complaints against common carriers); 47 C.F.R. § 1.1 (authorizing interested parties to petition the Commission to open, among other things, an enforcement proceeding).

[111] *See* GoAmerica Refresh Reply Comments at 4 ("In most locations throughout the U.S., TRS providers will have no problem obtaining local telephone number[s] for use by their users."); Sorenson Refresh Comments at 7 (noting that the VoIP "approach to numbering acquisition . . . has proven successful").

[112] NeuStar Refresh Comments, Attach. at 5 ("[W]holesale carriers do not serve every rate center and therefore will not have truly local numbers available for every location.").

[113] *Id.* We find such workarounds to be a more flexible solution than, and thus preferable to, mandating that any "telephone provider of last resort" be required to provide numbers to Internet-based TRS providers. *See* GoAmerica Refresh Reply Comments at 4.

[114] Because the use of remote call forwarding may inhibit some functionally equivalent services such as Caller ID, NeuStar Refresh Comments, Attach. at 5, we emphasize that such a workaround must be only a temporary solution until the Internet-based TRS provider can obtain a geographically appropriate number for the Internet-based TRS user by ordinary means.

[115] The deaf and hard-of-hearing community generally agrees that registration for these purposes is appropriate. *See, e.g.*, TDI Coalition Refresh Comments at 5–6.

IP address to allow for the routing and completion of calls;[116] (2) to facilitate the provision of 911 service;[117] and (3) to facilitate the implementation of appropriate network security measures.[118]

43. The Internet-based TRS provider with which an Internet-based TRS user has registered will serve as the Internet-based TRS user's "default provider."[119] For all Internet-based TRS users, all inbound and outbound calls will, by default, be routed through the default provider. Such a default provider arrangement is functionally equivalent to services provided on the PSTN and via interconnected VoIP. For example, voice telephone users that subscribe to a particular carrier for long distance service will make all of their long distance calls on that carrier's network unless they choose to "dial around" to an alternative long distance provider. Likewise, and in keeping with the *Interoperability Declaratory Ruling and FNPRM*, calls made to and from an Internet-based TRS user will be handled by the default provider, unless the calling Internet-based TRS user specifically "dials around" in order to utilize an alternative provider.[120] Individuals calling an Internet-based TRS user likewise will have the option of "dialing around" an Internet-based TRS user's default provider in order to utilize the services of a different TRS provider. Consistent with the LNP discussion above, an Internet-based TRS user may select and register with a new default provider at any time and have his or her number ported to that provider.

44. As of December 31, 2008, Internet-based TRS providers must, prior to the initiation of service for an individual that has not previously utilized Internet-based TRS, register that new Internet-based TRS user, provide that user with a ten-digit NANP telephone number, obtain that user's Registered Location, and fulfill all other requirements set forth in this *Order* that pertain to Registered Internet-based TRS Users. We find that allowing Internet-based TRS users to opt-in to or, for that matter, opt-out of registration, which is required for the provision of E911 service, is fundamentally inconsistent with our obligation to "encourage and support efforts by States to deploy comprehensive end-to-end emergency communications infrastructure and programs."[121]

45. Our numbering plan must be implemented such that ten-digit numbers are available to Internet-based TRS users no later than December 31, 2008.[122] We recognize, however, that every existing Internet-based TRS user will not be able to register with a default provider on that day. We therefore recognize that we must adopt a registration period for the existing base of Internet-based TRS users to migrate to the new numbering plan. In the *Further Notice*, we seek comment on the registration period timeframe.[123]

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[116] *See infra* Section III.B.2.a.

[117] *See infra* paras. 80–81; *see also Interim Emergency Call Handling Order*, 23 FCC Rcd at 5269, para. 23 ("We believe that user registration is critical to achieving the goal of providing location identification to first responders in the context of emergency calls placed over Internet-based TRS").

[118] For example, with registration Internet-based TRS providers can limit access to their databases to only Registered Internet-based TRS Users and other Internet-based TRS providers, reducing the exposure of a provider's databases to slamming, hacking, or other abuses. *See* NeuStar Refresh Comments, Attach. at 9; *see also infra* Section III.E.

[119] For the purposes of this *Order*, an Internet-based TRS provider's "Registered Internet-based TRS Users" are those users that have registered with that particular provider as their default provider.

[120] Although VRS and IP Relay providers will be the default providers for Internet-based TRS users under this *Order*, nothing in this *Order* detracts from a TRS provider's interoperability obligations. *See generally Interoperability Declaratory Ruling and FNPRM*, 21 FCC Rcd 5442.

[121] Wireless Communications and Public Safety Act of 1999, Pub. L. No. 106-81, 113 Stat. 1286, § 3(b) (1999); *see also VoIP 911 Order*, 20 FCC Rcd at 10271–72, para. 47.

[122] *See supra* para. 1.

[123] *See infra* Section IV.A.2.

2. Centralized Numbering Directory Mechanism

46. The record demonstrates consensus that a centralized numbering directory mechanism be employed to support calls between Internet-based TRS users using different providers of Internet-based TRS and between Internet-based TRS users and callers using the PSTN.[124] Specifically, consensus exists that there is need for a central database mechanism that maps the NANP telephone numbers assigned to Internet-based TRS users to an appropriate Internet address.[125] Commenters agree that this centralized numbering directory mechanism should be administered by a neutral third party.[126]

47. The efforts of the end-user community, industry, and the Commission, have not, however, been sufficient to reach consensus on *how* such a centralized numbering directory mechanism should be implemented. Indeed, the record currently reflects three proposals (Industry Proposals) for implementing a centralized numbering directory mechanism: NeuStar's Telephone Numbers for Relay Users (TRU); AT&T, GoAmerica, Hands On, and Dash's (Joint Proposal) Open Relay Database (ORD); and CSDVRS's One Number System (ONS).[127]

48. The core of each of the Industry Proposals is quite similar. Each proposes to establish a database into which routing information is provisioned,[128] and to make that routing information available

[124] *See, e.g.*, CSDVRS Refresh Comments at 2 ("CSD and CSDVRS enthusiastically support the establishment of a global, uniform ten-digit telephone numbering system for all Internet-based video and text relay users."); Dash Refresh Comments at 4 ("There appears to be no dispute within the relay industry that a central numbering database is a base requirement for a 10-digit NANP numbering plan."); Nebraska PSC Refresh Comments at 6 (fully supporting a centralized database managed by a third party); TDI Coalition Refresh Comments at 2 (stating that "[e]stablishing a numbering system linked to the NANP for IP-based relay services is a critical component in achieving functional equivalency"); AT&T Refresh Comments at 1; AG Bell Refresh Reply Comments at 1 (supporting the establishment of a single and open numbering directory); AAPD Refresh Reply Comments at 2; Sonny Refresh Reply Comments at 1. We note that the record contains a number of different possible labels or descriptions of the centralized numbering directory mechanism. *See, e.g.*, ATIS Report at 8, para. 3.3 ("Central Routing Database"); CSDVRS Refresh Comments at 8–9 ("TN database" or "TN information database"); Dash Refresh Comments at 4 ("Central Numbering Database"); NeuStar Refresh Comments, Attach. at 6 ("central database").

[125] *See, e.g.*, ATIS Report at 9, para. 3.3.4; Dash Refresh Comments at 3 (supporting using NANP numbers to obtain users' IP addresses); AT&T Refresh Comments at 1; Sprint Nextel Refresh Comments at 4.

[126] *See, e.g.*, Sprint Refresh Comments at 5 ("There is no dispute that a central database managed by a neutral third party must be deployed to support interoperability by ensuring that calls are correctly routed to the Relay provider chosen by the user of an Internet-based Relay service."); GoAmerica Refresh Comments at 12 (supporting the use of a neutral third-party database administrator); CSDVRS Refresh Comments at 9; NeuStar Refresh Comments at 15; Sorenson Refresh Comments at 17; TDI Coalition Refresh Comments at 3.

[127] *See* NeuStar Refresh Comments, Attach.; Letter from Richard L. Fruchterman, III, Public Policy and Regulatory Counsel, NeuStar, to Marlene H. Dortch, Secretary, FCC, CG Docket No. 03-123, Attach. (filed May 9, 2008); AT&T Refresh Comments at 1–3; Dash Refresh Comments at 7–9; GoAmerica Refresh Comments at 21–25; Letter from Toni R. Acton, Director, AT&T, to Marlene H. Dortch, Secretary, FCC, CG Docket No. 03-123, Attach. (filed Apr. 17, 2008) (AT&T *Ex Parte*); CSDVRS Refresh Comments at 10–32.

[128] *See* Letter from Richard L. Fruchterman, III, Public Policy and Regulatory Counsel, NeuStar, to Marlene H. Dortch, Secretary, FCC, CG Docket No. 03-123, Attach. (filed May 20, 2008) (discussing how NPAC database fits into NeuStar's TRU plan) (NeuStar TRU Supplement); Letter from Kelby Brick, Vice President of Legal and Strategic Policy, GoAmerica, Inc., to Marlene H. Dortch, Secretary, FCC, CG Docket No. 03-123, Attach. (filed May 21, 2008) (GoAmerica ORD Supplement) (discussing ORD database); Letter from George L. Lyon, Jr., Counsel, GoAmerica, Inc., to Marlene H. Dortch, Secretary, FCC, CG Docket No. 03-123, Attach. (filed May 28, 2008) (GoAmerica ORD Responsive Supplement) (comparing the three databases); Letter from Karen Peltz Strauss, Legal Consultant, CSDVRS, to Marlene H. Dortch, Secretary, FCC, CG Docket No. 03-123, Attach. at 5 (filed May 5, 2008) (CSDVRS Workshop Deck) (discussing ONS database). The NPAC is the local number portability database of record in the United States and Canada and is administered by NeuStar. Today it associates ported and

via a query system built on industry-standard domain naming system (DNS) and/or telephone number mapping (ENUM) technology.[129] The differences amongst the Industry Proposals, at the highest level, can be narrowed to three critical, but severable, issues: (1) the nature of the information contained in the central database; (2) the means by which the central database is provisioned with that information; and (3) the choice of who will be authorized to access the central database.[130] Further, the Industry Proposals are not "all or nothing," but consist of severable design components.[131]

49. As discussed in greater detail below, there are benefits and drawbacks to each of the Industry Proposals. We find that no single Industry Proposal represents the best implementation of a centralized numbering directory mechanism, but instead find that a combination of different elements of the Industry Proposals will best serve the interests of Internet-based TRS users, Internet-based TRS providers, and the general public. Specifically, and as discussed in greater detail below, we find that the best centralized numbering directory mechanism shall: (1) be provisioned with Uniform Resource Identifiers (URIs) that contain, *inter alia*, end-user IP addresses for VRS and domain names and user names for IP Relay; (2) be provisioned by Internet-based TRS providers on behalf of their Registered Internet-based TRS Users; and (3) limit central database access to Internet-based TRS providers. We further find that industry-standard DNS and ENUM technology is well-suited for implementing and querying the database.

a. Information to be Provisioned to the Central Database

50. The primary purpose of the central database will be to map each Internet-based TRS user's NANP telephone number to his or her end device. This can be accomplished by: (1) provisioning the database with each Internet-based TRS user's IP address (either alone or as part of a URI);[132] or

pooled NANP telephone numbers with PSTN routing and other information.

[129] *See* NeuStar TRU Supplement at 2; GoAmerica ORD Supplement at 31, 38; GoAmerica ORD Responsive Supplement at 1–2; CSDVRS Workshop Deck at 6; *see also* NeuStar Refresh Reply Comments at 7 n.20 ("All three proposals contemplate that DNS in general, and ENUM in specific, will be used to query the database"). As described in the ATIS report, DNS is the industry standard name for the Internet resource translation mechanism. Various capabilities built on DNS, *e.g.*, delegation, Telephone Number Mapping (ENUM), and Dynamic DNS (DDNS), provide a range of methods to support relay interoperability. DDNS is an existing DNS capability used to link domain names to IP addresses when those addresses are dynamically rather than statically assigned. *See* ATIS Report at 17, para. 4.2.2.1.

[130] One additional, and unique, aspect of the CSDVRS ONS plan is its proposal to have a neutral third party establish a full "ONS VoIP Network" to "support the termination of . . . calls at the designated relay provider." *See* CSDVRS Refresh Comments at 14.

[131] *See* Letter from Toni R. Acton, Director, AT&T Services Inc., to Marlene H. Dortch, Secretary, FCC, CG Docket No. 03-123, Attach. at 13 (filed May 5, 2008) (AT&T Workshop Deck); Letter from Richard L. Fruchterman, III, Public Policy and Regulatory Counsel, NeuStar, to Marlene H. Dortch, Secretary, FCC, CG Docket No. 03-123, Attach. at 4 (filed May 9, 2008) (NeuStar Workshop Deck); Letter from Michael B. Fingerhut, Director of Governmental Affairs, Sprint, to Marlene H. Dortch, Secretary, FCC, CG Docket No. 03-123, Attach. at 1 (filed May 19, 2008) (calling the numbering and database management issues "separable design decisions").

[132] At its simplest, a URI specifies both how (the protocol) and where (the address) to access a resource on the Internet. Thus a URI that contains an IP address might take the form "H323:128.000.000.001," in which "H323" specifies the protocol to be used and "128.000.000.001" specifies the resource's address. URIs that contain domain names and user names might similarly take the forms "H323:2025551212@siprelay.com" or "IM:IMUser@aol.com." The Joint Proposal and NeuStar's TRU contemplate that ENUM will be utilized to query the central database, and ENUM returns URIs in the form of Naming Authority Pointers (NAPTR). *See* NeuStar Refresh Reply Comments at 7 n.20. To the extent that URIs provisioned to the central database must contain information other than IP addresses or domain names and user names (*e.g.*, a protocol identifier, port number, etc.) in order to allow a call to be completed as discussed in this *Order*, we require that such information also be contained in URIs provisioned to the central database.

(2) provisioning the database with URIs that contain domain names and user names – such as an instant-message service and screen-name – that can be subsequently resolved to reach the user's end device.[133]

51. As an initial matter, we note that the central database must contain domain names and user names for IP Relay.[134] Domain names and user names are required for this form of Internet-based TRS in light of the wide array of IP-based text communication applications, services, and user identifiers that can be used for the leg of an IP Relay call between the Internet-based TRS user and a CA.[135] We further note that for a VRS user the central database must contain information other than a user's IP address (*e.g.*, a device-specific protocol identifier and, in some instances, a non-standard port number) and that this information can be included in a URI.[136] We therefore decline to adopt the ONS recommendation that the central database be provisioned only with IP addresses,[137] and instead require that URIs be provisioned to the central database.

52. With respect to VRS, URIs containing domain names and user names or URIs containing IP addresses can be provisioned to the central database and used by a querying party to properly route a call to a VRS user.[138] The choice of what information is contained in URIs provisioned to the central database will determine the signaling path required to establish the call.[139] In particular, the choice will directly impact how signaling is effectuated for calls between VRS users that have selected different default providers.[140]

53. Based on the record before us, we find that the central database should be provisioned with URIs containing IP addresses for VRS users. Provisioning URIs containing IP addresses to the central database will result in a simplified, and more efficient, call setup process by eliminating the need to query an Internet-based TRS user's default provider before completing every call.[141] Further, the use of a domain name in the URI normally would create a dependency on the global Domain Name System and

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[133] Domain names and user names have the advantage of being relatively static (*i.e.*, they do not need to be updated frequently), although additional DNS queries are required to resolve a domain name and user name to an IP address. IP addresses do not require additional DNS queries to complete routing, but they can be dynamic, changing frequently. We note that a single database can accommodate both URIs that contain IP addresses and other URIs that contain domain names and user names.

[134] ATIS Report at 16, 17, paras. 4.2.1.2, 4.2.2.2; Sorenson Refresh Comments at 8–9; NeuStar Workshop Deck at 6.

[135] *See* Sorenson Refresh Comments at 8–9 ("Because IP Relay addresses are often associated with a screen name, or some identifier other than an IP address . . . association of a number with an IP address will not work for IP Relay. . . . IP addresses . . . do not provide information about the protocols or systems employed by the end-user's device; and they do not work for users with multiple devices served by a single IP address.").

[136] *See supra* note Error: Reference source not found.

[137] *See* CSDVRS Refresh Comments at 21–22; CSDVRS Workshop Deck at 3.

[138] *See* ATIS Report at 15–17, paras. 4.2.1.1, 4.2.2.1.

[139] *See generally* ATIS Report, Appendix 1.

[140] *Compare, e.g.*, Sorenson Refresh Comments at 10–11 & Attach. 2 at 3 (explaining that, if the database's URIs contain domain names and user names and two Internet-based TRS users have different service providers, a call would need to be routed from the calling user, to one service provider, to the database, back to the first service provider, then to the other service provider and to the receiving user), *with* ATIS Report at 17, para. 4.2.2.1 (explaining that, if the database's URIs contain IP addresses, callers could avoid the step of querying the receiving user's service provider). Similar call routing occurs when a PSTN user calls an Internet-based TRS user and chooses not to utilize the terminating party's default provider. *See* NeuStar TRU Supplement at 1, 3; Sorenson Refresh Comments at 10–11 & Attach. 2 at 3; AT&T Workshop Deck at 4.

[141] *See, e.g.*, AT&T Workshop Deck at 4; ATIS Report, Appendix 1; Sprint Refresh Comments at 6; *see also supra* note Error: Reference source not found.

thereby introduce those additional security vulnerability issues associated with the global DNS. Finally, eliminating the terminating party's default provider from the call flow also improves Internet-based TRS user privacy by limiting the number of Internet-based TRS providers that have access to call signaling data,[142] and limits any ability the terminating party's default provider might have to block or otherwise degrade calls initiated through a competitor.[143]

54. *Registered Location information*. CSDVRS's ONS plan contemplates that the central database serve as a repository of Registered Location information used to deliver E911 service.[144] As discussed below in Section III.C, we decline to require that Internet-based TRS providers utilize a single provider of 911 related services. We likewise decline to require that Registered Location information be stored in the central database.[145] There is nothing in the record to indicate that providers of 911 service utilize a uniform format for storing registered location information, and requiring that Registered Location information be stored in the central database potentially could interfere with Internet-based TRS providers' ability to leverage existing 911 technologies. Further, the record does not indicate a pressing need for Internet-based TRS providers to have access to the Registered Location information of Internet-based TRS users other than their Registered Internet-based TRS Users.[146]

b. Means for Provisioning the Central Database

55. The Industry Proposals set forth three alternatives for populating and updating the central database. Under CSDVRS's ONS, Internet-based TRS users would directly provision information to the central database. Specifically, CSDVRS's ONS would require installation, at the user location, of a "One Number Service Module" (ONSM), which would periodically update the central database with the Internet-based TRS user's IP address.[147] We reject the CSDVRS ONS proposal. Such an approach poses significant security risks that are not present under other provisioning systems, as discussed below. In addition, we have significant questions about the feasibility and cost of ensuring that every Internet-based TRS user has installed new software or hardware on their TRS customer premises equipment (CPE) or home networks prior to December 31, 2008.[148]

56. Both NeuStar's TRU and the Joint Proposal would require Internet-based TRS providers to provision routing information to the central database. NeuStar's TRU proposes that the necessary routing information be provisioned to a new field created in the NPAC, which generally would require Internet-based TRS providers to provision information into the NPAC through their numbering partners.[149] The Joint Proposal's ORD, by contrast would have Internet-based TRS providers provision Internet-based TRS user routing information directly to the central database.[150]

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[142] *Cf.* CSDVRS Refresh Comments at 18–19.

[143] *See* AT&T Refresh Reply Comments at 5.

[144] *See infra* paras. 80–81 (discussing Registered Location requirement).

[145] We anticipate that, consistent with the practice of interconnected VoIP service providers, Registered Location data will be maintained by Internet-based TRS providers and/or their 911 service provider partners. *See infra* paras. 80–81.

[146] *See infra* para. 86.

[147] CSDVRS Refresh Comments at 21–24. CSDVRS states that the ONSM would consist of a "software application on a PC connected to the same LAN as the videophone" or a piece of hardware installed on the Internet-based TRS user's home network. *Id.* at 22.

[148] *See, e.g.*, AT&T Refresh Comments at 3 ("[S]ome existing customer equipment does not have the capability to automatically update the national database").

[149] ATIS Report at 16, para. 4.2.1.1; NeuStar Workshop Deck at 10. Only carriers, or entities operating under a letter of agency from a carrier, are permitted to update the NPAC. NeuStar Workshop Deck at 19.

57. NeuStar's TRU and the Joint Proposal's ORD share certain benefits as compared to CSDVRS's ONS.[151] Neither NeuStar's TRU nor the Joint Proposal's ORD require modifications to end user equipment or networks. Both proposals also reduce central database security risks by limiting access to a limited set of registered entities.[152] We further find, however, that the benefits of utilizing a provisioning method like that discussed in the Joint Proposal's ORD outweigh those of using the NPAC.

58. First, we note that NeuStar argues that its TRU proposal is best suited to ensuring the Commission's December 31, 2008 deadline is met.[153] NeuStar argues that the processes and procedures necessary to provision information to and obtain information from the NPAC are well established.[154] As discussed in greater detail below, however, we believe it is possible to build a new central numbering database as set out in the Joint Proposal's ORD with appropriate governance structures prior to the Commission's deadline.[155]

59. In the absence of compelling evidence that NeuStar's TRU approach is more likely to be implemented by our deadline, there is little reason to adopt a solution that causes Internet-based TRS providers to be anything other than directly responsible for provisioning routing information to the central database. We do not believe that requiring the insertion of a third party – such as a carrier that is an authorized NPAC user – into the process of provisioning and obtaining information from the central database is beneficial to the efficient operation of Internet-based TRS. Further, the record reflects concerns that carriers may not have the incentive to make changes necessary to fully automate the process of provisioning routing information for Internet-based TRS providers to the central database.[156] Finally, NeuStar's TRU proposal appears to have less flexibility with respect to modifications and updates that may be necessary in the future. Any additional changes to the NPAC would require the approval of the North American Portability Management (NAPM) LLC and a North American Numbering Council (NANC) working group.[157] These entities, which consist primarily of carriers, will not be possessed of the same incentives as Internet-based TRS providers when considering ways to optimize the provision of information to the central database. Thus, the Joint Proposal's ORD provides an easier and more flexible path to modifying the information in the central database.

60. *Obligations of Default Providers and Former Default Providers*. This approach imposes certain obligations on default providers. Default providers must obtain current routing information, including URIs containing IP addresses or domain names and user names, from their Registered Internet-based TRS Users, provision such information to the central database, and maintain it in their internal

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[150] GoAmerica Refresh Comments at 15; AT&T Refresh Comments at 3 ("[T]he most feasible way to update the national database is to require VRS providers to do so upon receipt of updated IP addresses from their customers").

[151] *See* Letter from Walter Magnussen, President, ACUTA: The Association of Communication Technology Professionals in Higher Education, to Marlene H. Dortch, Secretary, FCC, CG Docket No. 03-123, at 2 (May 28, 2008) (ACUTA *Ex Parte*) ("[O]f the three proposals offered, the AT&T and Neustar proposals were more open to use with various types of telecommunications systems that would be in use on college campuses . . . .").

[152] Only carriers can access the NPAC, *see* NeuStar Refresh Comments, Appendix A at 9; only Internet-based TRS providers could access the Joint Proposal's database, *see* AT&T *Ex Parte*.

[153] NeuStar Refresh Comments at 4.

[154] NeuStar states that modifications to the NPAC can be completed in two weeks, with necessary upgrades to provider systems and processes requiring three to four months. NeuStar Workshop Deck at 21.

[155] *See infra* paras. 69–70.

[156] *See* GoAmerica ORD Supplement at 14 (asserting that carrier updates to SOA will take significant time, if they are made at all); GoAmerica ORD Responsive Supplement at 10 (raising concerns that NeuStar's approach would require "a new cycle of LNPA/NPAM LLC work and interface development by all parties to add new URIs").

[157] *See* AT&T Refresh Reply Comments, Attach. 1.

databases and in the central database.[158] An Internet-based TRS user's CPE should directly provide necessary routing information to the Internet-based TRS user's default provider. All CPE issued, leased, or otherwise provided to Internet-based TRS users by Internet-based TRS providers must be capable of facilitating the fulfillment of these requirements.

61. Conversely, Internet-based TRS providers (and, to the extent necessary, their numbering partners) must take such steps as are necessary to *cease* acquiring routing information from any Internet-based TRS user that ports his or her number to another provider or otherwise selects a new default provider. Specifically, every Internet-based TRS provider must ensure that all CPE they have issued, leased, or otherwise provided to Internet-based TRS users delivers 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.

62. In addition, Internet-based TRS providers and their numbering partners also must communicate among themselves as necessary to ensure that only the default provider provisions routing information to the central database, and that providers other than the default provider are aware that they must query the central database in order to obtain accurate routing information for a particular user of Internet-based TRS.

63. In order to ensure that the telephone numbers of Internet-based TRS users are fully portable, that their devices are interoperable, and their privacy is protected, if an Internet-based TRS provider cannot provide service to a particular user in the manner described in this *Order*, the Internet-based TRS provider must not provide service to that user without seeking prior approval of the Commission.

c. Authorized Access to the Central Database

64. We next address the issue of who will be authorized to query the central database for the purpose of obtaining information from the database to complete calls.

65. CSDVRS's ONS proposes to allow the public direct access to the central database. The CSDVRS ONS is logically a part of the global DNS hierarchy that supports the Internet, and CSDVRS argues that such open access is comparable to the addressing system utilized by the public Internet.[159] Thus, any individual with access to the Internet would also be allowed to query the central database in order to obtain an Internet-based TRS user's IP address.

66. We decline to adopt a public direct access model. The record reflects that there are significant concerns regarding the ability to maintain the security of the central database if public direct access is allowed.[160] The record also reflects that allowing public direct access to the central database would jeopardize the privacy of Internet-based TRS users.[161]

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[158] *See supra* paras. 51, 53; *see also* Letter from Rosaline Hayes Crawford, Director, Law and Advocacy Center, National Association of the Deaf, to Marlene H. Dortch, Secretary, FCC, CG Docket 03-123 (filed June 5, 2008).

[159] *See* CSDVRS Refresh Reply Comments at 6 (noting that the ONS database would be "built on . . . the same system that provides address resolution for the Internet"); *id.* at 12 (claiming an open access platform, like the Internet, is needed to prevent Internet-based TRS providers from restricting innovation in new TRS platforms).

[160] AT&T Refresh Reply Comments at 5; NeuStar Refresh Reply Comments at 19; Sorenson Refresh Reply Comments at 10. Even CSDVRS admits that its public access model requires "additional measures" to "protect[] the user from attacks on the Internet." CSDVRS Refresh Comments at 37.

[161] NeuStar Refresh Reply Comments at 19. We also note CSDVRS's assertion that a key benefit of public direct access is that it would enable anyone equipped with a computer, an IP-enabled video camera, and an Internet connection to directly connect to Internet-based TRS users without the direct involvement of any Internet-based TRS provider. *See* CSDVRS Refresh Reply Comments at 2. We note that such calls are not TRS calls and therefore are not regulated or compensated under section 225. *See Interoperability Declaratory Ruling and FNPRM*, 21 FCC

67. NeuStar's TRU proposal restricts access to the central database to a limited number of authorized NPAC users – generally carriers or specialty service providers.[162] Similarly, the Joint Proposal's ORD would restrict access to the central database to the universe of Internet-based TRS providers.[163] Although these proposals make use of industry-standard DNS and ENUM technology, they are not logically part of the global DNS. As is the case with provisioning information to the central database,[164] there is little compelling reason to insert a third party into the process of querying the central database for routing information. Further, the record reflects that restricting access to the universe of Internet-based TRS providers will help to ensure the security of the central database and the privacy of the data contained therein.[165] We therefore adopt the Joint Proposal's suggestion to restrict access to Internet-based TRS providers.

d. Other Considerations

68. *Architecture*. Commenters observe that the DNS-based ENUM technology is a natural choice for the central database mechanism.[166] We note that a DNS database structure can be implemented through a variety of architectures, and are not, in selecting a DNS structure for the central database of the centralized numbering directory mechanism, mandating the creation of a single, monolithic DNS database or otherwise limiting options for implementation of the central DNS database. One of the key strengths of the DNS approach is its flexibility, and we defer to the neutral third party administrator discussed in section III.B.3 below to determine the most appropriate database architecture.

69. *Implementation Time*. Selection of the Joint Proposal's ORD structure does raise potential areas of concern. Because the Joint Proposal's ORD requires the selection of a new database operator and the creation of operational procedures for updating the database, commenters have raised concerns with respect to the likelihood that the Commission's December 31, 2008 implementation deadline will be met if a DNS structure is selected.[167] By contrast, the NPAC already exists, is already managed by a neutral third party operator, and the processes and procedures necessary to provision information to and obtain information from the NPAC are well established.[168]

70. While timing will be a challenge, the record evidence indicates it is possible to build a new central numbering database as set out in the Joint Proposal's ORD with appropriate governance structures prior to the Commission's deadline.[169] Given the assertions that both NeuStar's TRU and the Joint Proposal's ORD could be implemented prior to our deadline, we believe that the benefits of utilizing the Joint Proposal's ORD structure described above outweigh the relative time advantage of using NeuStar's TRU. Further, as discussed in greater detail in section III.G, the Commission today takes steps to ensure that the Commission's deadline is met.

Rcd at 5448 n. 53. This potential benefit is therefore outside the scope of this order.

[162] *See* NeuStar Refresh Comments, Attach. at 9.

[163] *See* AT&T *Ex Parte*.

[164] *See supra* para. 59.

[165] *See* AT&T Refresh Reply Comments at 5; GoAmerica Refresh Reply Comments at 11–12.

[166] *See, e.g.,* CSDVRS Refresh Comments at 15 (noting that these technologies are "scalable and expandable to meet the evolving needs of the deaf and hard of hearing community"); AT&T Refresh Reply Comments at 3–4 (noting that a DNS system is preferable for a central database mechanism as it is already in place and used in the VoIP context).

[167] *See* NeuStar Refresh Reply Comments at 16–18; Sorenson Refresh Reply Comments at 4–6.

[168] NeuStar states that modifications to the NPAC can be completed in two weeks, with necessary upgrades to provider systems and processes requiring three to four months. *See* NeuStar Workshop Deck at 21.

[169] *See* AT&T Workshop Deck at 10 (showing implementation timeline); Dash Refresh Reply Comments at 12.

71. *Privacy and Security*. NeuStar also argues that the database mechanisms, as utilized in the CSDVRS ONS and the Joint Proposal's ORD, raise potential security and privacy considerations.[170] In particular, NeuStar argues that the database mechanism described in the CSDVRS ONS and the Joint Proposal's ORD could be subject to unauthorized access or make available sensitive personal information or competitive information.[171] By contrast, under the rules by which the NPAC is administered, only service providers authorized by NeuStar are allowed access to the central database itself, and NeuStar's existing implementation has the facility to restrict the data that an authorized user can see and the amount of data that can be downloaded.[172]

72. We believe the security and privacy advantages NeuStar attributes to use of its proposal are attributable to the rules that limit access to the central database to a limited set of registered entities, rather than to any particular technical aspect of the NPAC itself. The record indicates that comparable registration and restricted access requirements can be implemented to secure a central database.[173] As discussed in section III.B.2.c, we require that access to the central database be limited so as to adequately address those concerns.[174]

3. Neutral Administrator

73. Building, maintaining, and operating the central database will best be done by a neutral third-party administrator under contract to the Commission and compensated through the Fund. Other, similar numbering functions are handled by third parties pursuant to contract, such as the NANPA and the PA. Indeed, as we have noted with regard to those functions, section 251(e)(1) directs that "[t]he Commission shall create or designate one or more impartial entities to administer telecommunications numbering and to make such numbers available on an equitable basis."[175] The record reflects consistent support for using this approach to support a central numbering database in this context as well.[176]

74. Time is of the essence.[177] The neutral database administrator must be selected, and must

[170] Although these issues overlap with who gets access to information, the fact that the NPAC already exists and has established access procedures is germane to the task of selecting a central database mechanism.

[171] *See* NeuStar Refresh Reply Comments at 14–15, 18–20.

[172] NeuStar Workshop Deck at 19.

[173] NeuStar itself noted that "its suggestions on security are independent of the choice of database." NeuStar Refresh Reply Comments at 10.

[174] NeuStar also raises the concern regarding the security of the link between Internet-based TRS providers and their end-users. Although mandatory user registration should allay some of these concerns, *see supra* note Error: Reference source not found, we seek comment on NeuStar's remaining suggestions in the *Further Notice*, *see infra* Part IV.

[175] 47 U.S.C. § 251(e)(1).

[176] *See, e.g.*, GoAmerica Refresh Comments at 12 (supporting the use of a neutral third-party database administrator); CSDVRS Refresh Comments at 9; NeuStar Refresh Comments at 15; Sorenson Refresh Comments at 17; Sprint Refresh Comments at 5; TDI Coalition Refresh Comments at 3.

[177] *See* Letter from Sheri Farinha Mutti, Chief Executive Officer, NorCal Services for Deaf and Hard of Hearing, to Marlene H. Dortch, Secretary, FCC, at 1 (June 5, 2008) (Of prime importance for the purposes of E9-1-1 is the need for the Commission to enforce strict deadlines with regard to the established timeline, i.e., December 31, 2008, for full implementation of the numbering plan."); Letter from Claude L. Stout, Executive Director, Telecommunications for the Deaf and Hard of Hearing, Inc., to Marlene H. Dortch, Secretary, FCC, at 1 (June 5, 2008) (noting "the pressing public interest need for Commission action on the numbering matter prior to the June 30, 2008 deadline previously established by the Commission"); Letter from Rosaline Hayes Crawford, Director of the Law and Advocacy Center, National Association of the Deaf, to Marlene H. Dortch, Secretary, FCC, at 1 (June 5, 2008) ("There remains a pressing public interest need for . . . implementation of a numbering system prior to the December

construct the database, work with industry to populate the database, test the functionality of the database, and be prepared to support ten-digit numbers for Internet-based TRS users by December 31, 2008.[178] Given the extremely tight timeline for accomplishing all these tasks – a timeline warranted by the public safety and functional equivalency that the ten-digit numbering solution will provide to the deaf and hard-of-hearing community – we establish the following process for how we will contract with a neutral administrator.

75. In the interest of time, we are not referring this issue to the NANC, as we have for past numbering contracts.[179] Rather, we delegate authority to the Office of the Managing Director (Managing Director), with the assistance of the Wireline Competition Bureau, the Consumer & Governmental Affairs Bureau, and the Office of General Counsel, to select the neutral administrator based on a competitive bidding process. As soon as possible after release of this *Order*, the Managing Director shall begin the contracting process.

76. Any database administrator must meet certain neutrality criteria, both with respect to being selected as the administrator and in performing its functions. Consistent with the other numbering functions performed under contract, we believe that the neutral administrator should be a non-governmental entity that is not aligned with any particular telecommunications industry segment.[180] The neutral administrator must be fair and impartial. It must also meet neutrality criteria similar to those we have established for the NANPA[181] and the PA,[182] but adjusted as appropriate to reflect the purposes of this particular database.

77. There are two proposals on the record for neutrality criteria that should apply to the neutral administrator. Both ATIS[183] and Sorenson[184] suggest that the Commission adopt neutrality criteria very similar to those already in place for the NANPA. We agree that this is the best approach, as demonstrated by our successful experience working with those neutrality criteria in another context. We therefore conclude that: (1) the neutral administrator must be a non-governmental entity that is impartial and is not an affiliate[185] of any Internet-based TRS provider; (2) the neutral administrator and any affiliate

31, 2008 deadline previously established by the Commission.").

[178] *See infra* Section III.G.

[179] *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, 23049, para. 15 (Oct. 9, 1997) (*NANP Administration Third Report and Order*).

[180] *See NRO First Report and Order*, 15 FCC Rcd at 7642, para. 153.

[181] *See* 47 C.F.R. § 52.12(a)(1) (listing neutrality criteria for the NANPA).

[182] *See* 47 C.F.R. § 52.20(d)(1) (applying NANPA neutrality criteria to PA).

[183] *See* ATIS Report, Appendix 3 § 1.0.

[184] *See* Sorenson Refresh Comments, Attach. 1.

[185] 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

may not issue a majority of its debt[186] to, nor derive a majority of its revenues from, any Internet-based TRS provider; and (3) notwithstanding the neutrality criteria set forth in (1) and (2) above, the neutral administrator may be determined to be or not to be subject to undue influence by parties with a vested interest in the outcome of TRS-related numbering administration and activities.[187] Any subcontractor that performs functions of the neutral administrator must also meet these neutrality criteria.

78. *Consensus body*. The ATIS Report and certain commenters recommend formation of a competent body, or the use of an existing body, to effectively coordinate the development of implementation requirements and manage ongoing database operations with the designated database provider.[188] Such a body could include providers of Internet-based TRS, representatives from the deaf and hard-of-hearing community, and other interested stakeholders. We encourage providers of Internet-based TRS to heed the ATIS Report recommendation in this regard, but decline at this time to mandate the formation of an appropriate body.

C. Emergency Call Handling Requirements

79. We stated in the *Interim Emergency Call Handling Order* our belief that the use of a Registered Location process, similar to that adopted in the *VoIP 911 Order*, constitutes an additional critical component of an E911 solution for Internet-based TRS providers,[189] so that a CA may promptly determine an appropriate PSAP, designated statewide default answering point, or appropriate local emergency authority to call to respond to the emergency.[190] Accordingly, as we required of all interconnected VoIP providers, we require that all Internet-based TRS providers obtain or have access to consumer location information for the purposes of emergency calling requirements.[191] We also require all Internet-based TRS providers to obtain from their Registered Internet-based TRS Users their physical location, and we modify the call handling requirements adopted in the *Interim Emergency Call Handling Order* to reflect the adoption of a Registered Location requirement.[192]

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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 NRO First Report and Order*, 15 FCC Rcd at 7642, para. 154 n.354; *NANP Administration Third Report and Order*, 12 FCC Rcd at 23076, para. 69.

[186] "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); *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.

[187] *See* 47 C.F.R. § 52.12(a)(1)(iii); *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.

[188] ATIS Report at 14, para. 4.2; CSDVRS Refresh Comments at 10.

[189] We note that the courts have upheld our adoption, under our Title I jurisdiction, of similar rules for interconnected VoIP. *See Nuvio Corp. v. FCC*, 473 F.3d 302 (D.C. Cir. 2006).

[190] *See Interim Emergency Call Handling Order*, 23 FCC Rcd at 5268, para. 22 (citing *VoIP 911 Order*, 20 FCC Rcd at 10271, para. 46 (describing Registered Location requirement for interconnected VoIP providers); 47 C.F.R. § 9.3 (defining "Registered Location" as the "most recent information obtained by an interconnected VoIP service provider that identifies the physical location of an end user")).

[191] *See* 47 C.F.R. § 9.5(d)(1) (requiring interconnected VoIP providers to "[o]btain from each customer, prior to the initiation of service, the physical location at which the service will first be utilized"); *VoIP 911 Order*, 20 FCC Rcd at 10271, para. 46 (same); *see also id.* at 10272, para. 47 ("[I]nterconnected VoIP providers must, as a condition of providing that service to a consumer, provide that consumer with E911 service as outlined [by the Commission.]"). Numerous commenters supported this requirement. *See, e.g.*, TDI Coalition Refresh Comments at 5–6; NeuStar Refresh Comments at 7–8; TRS Advisory Council Refresh Comments at 2; NENA Refresh Reply Comments at 4.

[192] The requirement to "implement a system that ensures that providers answer an incoming emergency call before other non-emergency calls (*i.e.*, prioritize emergency calls and move them to the top of the queue)" remains unchanged. *Interim Emergency Call Handling Order*, 23 FCC Rcd at 5265–66, para. 16. We now require that "in the event one or both legs of the call are disconnected (*i.e.*, either the call between the Internet-based TRS user and the CA, or the outbound voice telephone call between the CA and the PSAP, designated statewide default answering

80. *Registered Location Requirement*. We recognize that it currently is not always technologically feasible for providers of Internet-based TRS to automatically determine the location of their end users without end users' active cooperation.[193] We therefore require each provider of Internet-based TRS to obtain location information from each of their Registered Internet-based TRS Users.[194] Specifically, providers of Internet-based TRS must obtain from each of their Registered Internet-based TRS Users, prior to the initiation of service, the physical location at which the service will first be utilized.[195] The most recent location provided to an Internet-based TRS provider by a Registered Internet-based TRS User is the "Registered Location." Internet-based TRS providers can comply with this requirement directly or by utilizing the services of a third party. Furthermore, providers of Internet-based TRS that can be utilized from more than one physical location must provide their Registered Internet-based TRS Users one or more methods of updating information regarding the Registered Internet-based TRS User's physical location. Although we decline to specify any particular method, we require that any method utilized allow a Registered Internet-based TRS User to update his or her Registered Location at will and in a timely manner, including at least one option that requires use only of the CPE necessary to access the Internet-based TRS.[196] Further, Internet-based TRS providers may not charge users to update their Registered Location, as this would discourage Registered Internet-based TRS Users from doing so and therefore undermine this solution.[197]

81. The *Interim Emergency Call Handling Order* required Internet-based TRS providers to "request, at the beginning of every emergency call, the caller's name and location information."[198] Internet-based TRS providers no longer are required to request such information at the beginning of an emergency call if the Internet-based TRS provider has, or has access to, a Registered Location for the caller.[199]

82. *Routing 911 Calls*. The *Interim Emergency Call Handling Order* permitted Internet-based TRS providers to route 911 calls to PSAPs' ten-digit administrative lines pending adoption of a Registered Location requirement.[200] As of December 31, 2008, we require that an Internet-based TRS provider must transmit all 911 and E911 calls, as well as a call back number, the name of the relay provider, the CA's identification number, and the caller's Registered Location for each call, to the PSAP,

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point, or appropriate local emergency authority)," Internet-based TRS providers must "immediately re-establish contact with the Internet-based TRS user and/or the appropriate PSAP, designated statewide default answering point, or appropriate local emergency authority and resume handling the call" in all circumstances. *Id.*

[193] *See VoIP 911 Order*, 20 FCC Rcd at 10271, para. 46; *see also* Sorenson Refresh Reply Comments at 6 n.13.

[194] We emphasize that we are not requiring providers of Internet-based TRS to automatically determine the location of their end users. Nothing in these rules, however, prevents an Internet-based TRS provider from automatically obtaining an accurate Registered Location if it is capable of doing so.

[195] Internet-based TRS providers also must obtain from their existing default users, no later than December 31, 2008, the physical location at which the service is being utilized.

[196] *Cf.* 47 C.F.R. § 9.5(d)(2) (requiring interconnected VoIP providers to offer customers "one or more methods of updating their Registered Location, including at least one option that requires use only of the CPE necessary to access the interconnected VoIP service"); *VoIP 911 Order*, 20 FCC Rcd at 10271, para. 46 (noting that any method utilized for updating interconnected VoIP customers' Registered Location "must allow an end user to update the Registered Location at will and in a timely manner").

[197] *Cf. VoIP 911 Order*, 20 FCC Rcd at 10271, para. 46.

[198] *Interim Emergency Call Handling Order*, 23 FCC Rcd at 5265, para. 16.

[199] Internet-based TRS providers may request verification of the Registered Location data during the course of handling a 911 call. We also emphasize that a provider must use best efforts to handle an emergency call and place the outbound leg of such a call, even if the calling party refuses to provide his or her identity or a Registered Location.

[200] *See Interim Emergency Call Handling Order*, 23 FCC Rcd at 5265, para. 16 n.66.

designated statewide default answering point, or appropriate local emergency authority that serves the caller's Registered Location and that has been designated for telecommunications carriers under section 64.3001 of the Commission's rules.[201] These calls must be routed through the use of ANI and, if necessary, pseudo-ANI,[202] via the dedicated Wireline E911 Network,[203] and the Registered Location must be available from or through the ALI Database.

83. Internet-based TRS providers may satisfy this requirement by interconnecting indirectly through a third party such as a competitive LEC, interconnecting directly with the Wireline E911 Network, or through any other solution that allows an Internet-based TRS provider to offer E911 service as described above. For the same reasons discussed in the *VoIP 911 Order*, an Internet-based TRS provider need only provide such call back and location information as a PSAP, designated statewide default answering point, or appropriate local emergency authority is capable of receiving and utilizing.[204]

84. We emphasize that as of December 31, 2008, Internet-based TRS providers may not fulfill their 911 obligations by routing 911 calls to ten-digit NPA-NXX numbers (so called "administrative numbers") of PSAPs, designated statewide default answering points, or appropriate local emergency authorities where a Selective Router is utilized.[205]

85. *911 Service Providers*. Based on the record before us, we continue to expect that Internet-based TRS providers will be able to use much of the same infrastructure and technology that is already in place for the delivery of 911 and E911 calls by interconnected VoIP service providers.[206] The record further reflects that there is a competitive market for the provision of such infrastructure and

[201] 47 C.F.R. § 64.3001; *see also Implementation of 911 Act; The Use of N11 Codes and Other Abbreviated Dialing Arrangements*, WT Docket No. 00-110, CC Docket No. 92-105, Fifth Report and Order, Memorandum Opinion and Order on Reconsideration, 16 FCC Rcd 22264, 22269–77, paras. 10–31 (Dec. 11, 2001). The term "PSAP" has the same meaning as that set forth in section 20.3 of the Commission's rules. 47 C.F.R. § 20.3.

[202] The term "pseudo-ANI" as used herein has the same meaning as that set forth in section 20.3 of the Commission's rules. 47 C.F.R. § 20.3. In light of the fact that TRS calls currently are not billed to TRS users, we must adopt a modified version of the term ANI as defined in § 20.3. The term "ANI" as used herein shall mean "For 911 systems, the ANI identifies the calling party and may be used as the callback number."

[203] The term "Wireline E911 Network" as used herein has the same meaning as that set forth in section 9.3 of the Commission's rules. 47 C.F.R. § 9.3. In a typical implementation, the Wireline E911 Network includes the Selective Router, which receives 911 calls from competitive and incumbent LEC central offices over dedicated trunks. The Selective Router, after querying an incumbent LEC-maintained Selective Router Database (SRDB) to determine which PSAP serves the caller's geographic area, forwards the calls to the PSAP that has been designated to serve the caller's area, along with the caller's phone number (ANI). The PSAP then forwards the caller's ANI to an incumbent LEC maintained Automatic Location Information database (ALI Database), which returns the caller's physical address (that has previously been verified by comparison to a separate database known as the Master Street Address Guide (MSAG)). The Wireline E911 Network thus consists of: the Selective Router; the trunk line(s) between the Selective Router and the PSAP; the ALI Database; the SRDB; the trunk line(s) between the ALI database and the PSAP; and the MSAG. *VoIP 911 Order*, 20 FCC Rcd at 10252, para. 15.

[204] *See VoIP 911 Order*, 20 FCC Rcd at 10269–70, paras. 42–43.

[205] *See Interim Emergency Call Handling Order*, 23 FCC Rcd at 5270–71, paras. 27–28.

[206] *See VoIP 911 Order*, 20 FCC Rcd at 10267–69, paras. 38–39; *see also* GoAmerica Refresh Comments at 17 (noting that once Internet-based TRS users have NANP telephone numbers, "emergency calls can be efficiently passed on to 911 systems for automatic routing to the appropriate PSAP in the same manner as VoIP calls are done today"); NeuStar Refresh Comments at 7–8 ("VRS and other IP-based relay services should use the same system for providing their users with E9-1-1 capability as is used by VoIP providers today."); Comments of the National Emergency Number Association, Attach. at 2–3 (Dec. 3, 2007) (indicating that an emergency call can be routed to a PSAP from a relay center using the same process that interconnected VoIP providers use); *cf. id.* at 2 n.4 (noting that OnStar, a telematics provider, routes emergency calls from its call centers to the appropriate PSAP over the Wireline E911 Network).

technology as well as related services,[207] and competition has the effect of improving service and reducing prices. We therefore reject CSDVRS's suggestion that all Internet-based TRS providers be required to utilize a single provider of 911 related services.[208]

86. We recognize that, because Internet-based TRS providers will be able to choose from among multiple providers of 911 related services, in instances in which an Internet-based TRS user places an emergency call through an Internet-based TRS provider other than the Internet-based TRS user's default provider, the alternative provider may not have access to the Internet-based TRS user's Registered Location information.[209] We note, however, that providers must prioritize and answer emergency calls in accordance with the requirements set forth in the *Interim Emergency Call Handling Order*.[210] Further, because of the importance of emergency call handling, providers must ensure adequate staffing of emergency call handling processes so that CAs are not required to disconnect non-emergency calls in order to process emergency calls. In light of these requirements and the nature of emergency calls, we expect that most, if not all, emergency calls will be dialed via an Internet-based TRS user's default provider and thus will have associated Registered Locations. Further, in light of the importance of access to emergency services for relay users, we ask below whether the Commission should take other steps in order to ensure that emergency calls are handled in an appropriate and expeditious manner.[211]

D. Consumer Outreach and Education

87. The Commission recognizes that effective consumer outreach and education are necessary to ensure a seamless transition to a ten-digit numbering system,[212] and to ensure the successful implementation of the Registered Location requirement.[213] To achieve these goals, we require Internet-based TRS providers to expand upon the consumer advisory that we required them to issue in conjunction with the *Interim Emergency Call Handling Order* to include matters addressed in this *Order* pertaining to the assignment of ten-digit telephone numbers and the registration of Internet-based TRS users' location information. We also require Internet-based TRS providers, consistent with the *VoIP 911 Order*, to obtain, keep, and make available to the Commission upon request a record of affirmative acknowledgement by every user to whom they assign a ten-digit telephone number of having received and understood the advisory described below.

88. In the *VoIP 911 Order*, the Commission required interconnected VoIP providers to "specifically advise" their subscribers of "the circumstances under which E911 service may not be available" through an interconnected VoIP service.[214] The Commission also required interconnected VoIP providers to "obtain and keep a record of affirmative acknowledgement by every subscriber, both new and existing, of having received and understood this advisory"[215] and to distribute labels "warning subscribers if E911 service may be limited or not available and instructing the subscriber to place them on and/or near

[207] *See* NeuStar Refresh Reply Comments at 5, 11; Dash Refresh Reply Comments at 5; Sorenson Refresh Reply Comments at 12; *cf.* GoAmerica Refresh Reply Comments at 10 (criticizing CSDVRS proposal for requiring Internet-based TRS providers to "undo arrangements they are now making with 911 service providers").

[208] *See* CSDVRS Refresh Reply Comments at 31–32 (discussing the benefits of its proposed "centralized common E9-1-1 system").

[209] *See* CSDVRS Refresh Reply Comments at 9 (noting that other proposals "do not explain if and how each provider's address database information would be shared with other providers in real-time to support E9-1-1 situations"); Sprint Nextel Refresh Comments at 6–7; NeuStar Refresh Reply Comments at 10–11.

[210] *See Interim Emergency Call Handling Order*, 23 FCC Rcd at 5269, para. 24; *see also* 47 C.F.R. § 64.605.

[211] *See infra* Section IV.A.1.

[212] *See supra* Section III.B.

[213] *See supra* paras. 80–81.

[214] *VoIP 911 Order*, 20 FCC Rcd at 10272, para. 48.

[215] *Id.*

the CPE used in conjunction with the interconnected VoIP service."[216] In light of these requirements, the Commission's *VRS/IP Relay 911 NPRM* sought comment on whether the Commission should impose similar consumer notification requirements on Internet-based TRS providers.[217]

89. In the *Interim Emergency Call Handling Order*, the Commission required Internet-based TRS providers to include an advisory on their websites and in any promotional materials directed to consumers, prominently and in plain language, explaining the circumstances under which emergency calls made via Internet-based TRS may be in some way limited by comparison to traditional E911 service.[218] We imposed this requirement based on our belief that it is important to educate consumers regarding the limitations of using the Internet-based forms of TRS to make emergency calls in the event that a consumer does place an emergency call via an Internet-based relay service.[219] The Commission also noted that it may address "additional" consumer notification requirements, "as appropriate," in a forthcoming order, "consistent with the consumer notification requirements adopted in the *VoIP 911 Order*."[220]

90. Because substantial consumer outreach efforts will be needed to ensure a seamless transition to a ten-digit numbering system and to ensure the successful implementation of the Registered Location requirement adopted herein, we require each Internet-based TRS provider to include an additional advisory on its website and in any promotional materials addressing the new requirements adopted herein. This requirement is subject to the approval of the Office of Management and Budget (OMB). If approved by OMB, this requirement shall become effective upon publication by the Commission of a notice in the Federal Register announcing the effective date. At a minimum, the advisory must address the following issues: (1) the process by which Internet-based TRS users may obtain ten-digit telephone numbers, including a brief summary of the numbering assignment and administration processes adopted herein; (2) the portability of ten-digit telephone numbers assigned to Internet-based TRS users; (3) the process by which persons using Internet-based forms of TRS may submit, update, and confirm receipt by the provider of their Registered Location information; and (4) an explanation emphasizing the importance of maintaining accurate, up-to-date Registered Location information with the user's default provider in the event that the individual places an emergency call via an Internet-based relay service. Consistent with the *VoIP 911 Order*, we also require Internet-based TRS providers to obtain and keep a record of affirmative acknowledgement by every user assigned a ten-digit telephone number of having received and understood the advisory described above.[221]

91. We conclude that imposing these requirements will help to ensure that consumers receive timely and complete information concerning the transition to a ten-digit numbering system and the implementation of the Registered Location requirement.[222] We also agree with the comments of the TDI Coalition that significant outreach efforts both by providers and by the Commission will be needed in order to ensure a positive consumer experience during the transition to a ten-digit numbering system.[223] To this end, the Commission directs the Consumer & Governmental Affairs Bureau to issue a consumer advisory to TRS users summarizing the requirements and obligations set forth in this *Order*, and to

[216] *Id.* at 10273, para. 48.

[217] *VRS/IP Relay 911 NPRM*, 20 FCC Rcd at 19486, para. 22.

[218] *Interim Emergency Call Handling Order*, 23 FCC Rcd at 5270, para. 26.

[219] *Id.* (citing *VoIP 911 Order*, 20 FCC Rcd at 10272, para. 48).

[220] *Id.*

[221] *See, e.g.*, NENA Refresh Reply Comments at 4–5.

[222] Commenters support efforts to educate consumers about the transition to a ten-digit numbering system, including Registered Location requirements. *See, e.g.*, AAPD Refresh Reply Comments at 3; CSDVRS Refresh Reply Comments at 10; NENA Refresh Reply Comments at 5; TDI Coalition Refresh Comments at 6.

[223] *See* TDI Coalition Refresh Comments at 6.

disseminate the advisory through the Consumer Information Registry.[224] Commission staff will also continue to work closely with industry and consumer groups to ensure that TRS users are aware of and understand these new requirements.

E. IP Relay Fraud

92. Although Internet-based relay services have proven to be enormously popular with consumers, these services (and particularly IP Relay) may be more susceptible to misuse than other forms of TRS. For example, the Commission has received complaints and anecdotal evidence that persons without a hearing or speech disability have misused IP Relay to defraud merchants by making purchases over the telephone using stolen, fake, or otherwise invalid credit cards.[225] This misuse is enabled both by Internet-based TRS providers' current difficulty in determining with certainty the geographic location of their users and by IP Relay providers' inability to determine the identity of any particular user (because an IP Relay CA only receives the text of a user's message). In other words, IP Relay affords the user a degree of anonymity that is generally not possible with PSTN-based relay calls.[226] This misuse harms both the merchants who are victimized and legitimate IP Relay users who may no longer be able to convince merchants to take their calls or accept their orders for merchandise.[227] In addition, the misuse of IP Relay by hearing callers poses an added burden on the Fund – a burden ultimately borne by all consumers.[228]

93. In the *IP Relay/VRS Misuse FNPRM*, the Commission sought comment on specific ways to curtail the misuse of IP Relay consistent with section 225 and the TRS regulations.[229] The majority of the commenters urged the Commission to address this problem.[230] In doing so, IP Relay providers generally asserted that a large portion of the fraudulent calls are placed by persons outside the United States using a stolen or fraudulent credit card to order goods to be shipped to a foreign location.[231]

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[224] The Consumer Information Registry (CIR) is a consumer notification system developed by the Consumer & Governmental Affairs Bureau that delivers to subscribers free, customized information on various communications-related topics of interest to the subscriber. Consumers wishing to subscribe may access CIR at http://www.fcc.gov/cgb/contacts/welcome.html. To receive announcements concerning Internet-based TRS numbering (and other disability-related issues), users should select "Disability Issues" from among the listed topics of interest on which the user wishes to receive e-mail notifications.

[225] *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, Further Notice of Proposed Rulemaking, 21 FCC Rcd 5478, 5480–81, para. 6 (May 8, 2006) (*IP Relay/VRS Misuse FNPRM*).

[226] *Id.* Because TTY-based TRS calls are made over the PSTN, the call to the relay center includes identifying information, such as the calling party's number (*e.g.*, the ANI). That information is used to determine if the call is interstate or intrastate for compensation purposes under section 225, but also has the effect of deterring the misuse of this form of TRS. *Id.* at 5480–81, para. 6 & n.19.

[227] *Id.* at 5481, para. 7. *See* Comments of Country Boy Trailers (June 1, 2006) (stating that they will be hesitant to accept TRS orders in the future because all experience with TRS in the past has been fraudulent).

[228] *IP Relay/VRS Misuse FNPRM*, 21 FCC Rcd at 5481, para. 7.

[229] *Id.* at 5483–84, para. 11–16. Although the TRS statutory and regulatory regime does not contemplate that CAs should have a law enforcement role by monitoring the conversations they are relaying, *id.* at 5482, para. 9; Comments of Hamilton Relay, Inc. at 2 (July 6, 2006) (Hamilton TRS Fraud Comments), the Commission sought comment on whether CAs and Internet-based TRS providers should be given discretion to terminate calls they suspect to be fraudulent, *IP Relay/VRS Misuse FNPRM*, 21 FCC Rcd at 5483, para. 11–13. The item also sought comment on ways to curtail the use of VRS in circumstances where a fee-based in-person interpreter or a Video Remote Interpreting (VRI) service should be used. *Id.* at 5484–85, para. 17–21.

[230] *See, e.g.*, Comments of AT&T, Inc. at 1 (July 3, 2006) (AT&T TRS Fraud Comments); Hamilton TRS Fraud Comments at 1–2; Comments of Sorenson Communications, Inc. at 2 (July 3, 2006) (Sorenson TRS Fraud Comments); Comments of Verizon, Inc. at 1 (July 3, 2006) (Verizon TRS Fraud Comments).

94. We believe that registration of Internet-based TRS users with a default provider and provision of a Registered Location[232] should reduce the misuse of IP Relay by persons seeking anonymity to make fraudulent credit card purchases and engage in other wrongdoing.[233] We expect that the registration of Internet-based TRS users will gradually boost confidence amongst merchants that Internet-based TRS calls are a valuable means of doing business within an often underserved community. And because the curbing of IP Relay fraud is a collateral benefit of our registration requirements and because recent comments show that Internet-based TRS users do not object to registering for purposes of obtaining a ten-digit number and ensuring access to seamless emergency call handling services,[234] we think the concerns of the commenters that opposed registration of IP Relay users solely as a means to curb fraud[235] are moot.[236]

95. At the same time, we seek further comment on whether additional steps may be warranted to curtail the misuse of IP Relay.[237]

F. Cost Recovery Issues

96. Section 225 creates a cost recovery regime whereby TRS providers are compensated for their reasonable costs of providing service in compliance with the TRS regulations.[238] The Commission has explained that "for purposes of determining the 'reasonable' costs that may be recovered . . . , the costs must relate to the provision of service in compliance with the applicable non-waived [TRS] mandatory minimum standards."[239] Therefore, because we now require Internet-based TRS providers to offer ten-digit numbering and E911 services, providers of these services are entitled to recover their reasonable costs of complying with the new requirements as set forth below.[240]

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[231] *See* Sorenson TRS Fraud Comments at 4; Comments of Sprint Nextel Corporation at 3–4 (July 3, 2006) (Sprint TRS Fraud Comments).

[232] *See supra* Section III.B.1.e & paras. 80–81.

[233] Merchants concerned about fraud can now require an NANP telephone number to call back to verify transactions and gain an additional level of confidence because only registered Internet-based TRS users will have such numbers. *See* Hamilton TRS Fraud Comments at 4 (asserting that mandatory user registration system would be an effective method of curbing fraudulent misuse of Internet-based TRS).

[234] *See, e.g.*, TDI Coalition Refresh Comments at 5–6; TDI Coalition Refresh Reply Comments at 2.

[235] *See* AT&T TRS Fraud Comments at 7 ("[I]mpaired consumers have repeatedly and strongly opposed user registration as a means to curb fraudulent activity."); Sprint TRS Fraud Comments at 7 (worrying that mandatory registration "would impose undue burdens on the deaf and hard-of-hearing community"); Comments of Telecommunications for the Deaf and Hard of Hearing, Inc., *et al*. at 7 (July 3, 2006) (opposing registration as a means of curbing fraud, but noting "emergency call handling is not before the Commission in this FNPRM"); Verizon TRS Fraud Comments at 9 (claiming that registration of Internet-based TRS user is "unnecessary").

[236] Sorenson's concern that a fraudulent user might register with a fake name, *see* Sorenson TRS Fraud Comments at 9–10, is tempered, in part, by the fact that a registering user will also be required to provide a physical address when registering. Moreover, by endorsing the benefits of registration, the Commission does not rule on the particular practices of Internet-based TRS providers for curbing fraud within their own networks. *See, e.g.*, Sprint TRS Fraud Comments at 3–5 (describing Sprint's efforts to combat IP Relay fraud).

[237] *See infra* Section IV.A.11.

[238] 47 U.S.C. § 225(d)(3); 47 C.F.R. § 64.604(c)(5). TRS users cannot be required to pay rates "greater than the rates paid for functionally equivalent voice communication services with respect to such factors as duration of the call, the time of day, and the distance from point origination to point of termination." 47 U.S.C. § 225(d)(1)(D).

[239] *2004 TRS Report & Order*, 19 FCC Rcd at 12551–52, para. 199; *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, Order on Reconsideration, 21 FCC Rcd 8050, 8057, paras. 15–16 (July 12, 2006).

[240] *See Interim Emergency Call Handling Order*, 23 FCC Rcd at 5269, para. 23 n.87 (noting that the costs of compliance with that order are compensable from the Interstate TRS Fund as part of providing TRS service in

97. Presently, both VRS and IP Relay are compensated at per-minute rates calculated pursuant to the cost recovery methodologies adopted in the *2007 TRS Rate Methodology Order*.[241] For IP Relay, we adopted a price cap plan that sets rates for a three-year period, subject to possible adjustment, including for "exogenous costs."[242] For VRS, we adopted tiered rates based on the providers' projected costs and minutes of use, which are also set every three years.[243] Although the VRS rates are not based on price caps, the Commission stated that providers would be permitted "to seek exogenous cost adjustments if new costs are imposed that are beyond the providers' control."[244]

98. Although we do not believe that the providers' additional costs necessary to implement the numbering and Registered Location requirements adopted herein will be substantial, they are costs for which the providers generally may be reimbursed. These costs, of course, have not been factored into the present compensation rates, but reflect new costs related to new service requirements.[245] Although we could adjust the current VRS and IP Relay rates to include these additional costs, we conclude that because the amount of these costs is presently uncertain, and may vary among the providers, we will compensate these costs separately from the other costs presently encompassed by the per-minute compensation rates.

99. Therefore, providers seeking compensation for their actual reasonable costs of complying with the new requirements adopted in this item must submit to the Interstate TRS Fund Administrator a reasonably detailed explanation of those costs incurred. We will require that such costs be submitted every three months, beginning three months after the release date of this *Order*. Costs submitted must be for those costs actually incurred during the prior three-month period. The TRS Fund Administrator, and the Commission, shall review submitted costs and may request supporting documentation to verify the expenses claimed, and may also disallow unreasonable costs. We will permit such filings until such time as new compensation rates are adopted that include the costs of complying with the requirements adopted herein, or the Commission otherwise re-addresses this issue.

100. Submitted costs may include those additional costs incurred by a provider that directly relate to: (1) ensuring that database information is properly and timely updated and maintained; (2) processing and transmitting calls made to ten-digit numbers assigned pursuant to this *Order*; (3) routing emergency calls to an appropriate PSAP; (4) other implementation related tasks directly related to facilitating ten-digit numbering and emergency call handling; and (5) consumer outreach and education related to the requirements and services adopted in this *Order*.[246] These costs do not include, however, costs relating to assigning numbers to the Internet-based TRS users nor costs relating to number portability. Because voice telephone users generally bear these costs, we seek comment in the *Further Notice* below on whether Internet-based TRS users or the Fund should bear these costs. We also remind Internet-based TRS providers, however, that these costs may not include costs related to facilitating non-TRS peer-to-peer (or video-to-video) calls.[247]

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compliance with the mandatory minimum standards).

[241] 22 FCC Rcd 20140.

[242] *Id.* at 20159–60, paras. 43–44. "Exogenous" costs are those costs beyond the control of the providers that are not reflected in other adjustments to the price cap rate. *Id.* at 20160, para. 44.

[243] *Id.* at 20162–65, paras. 52–56.

[244] *Id* at 20164–65, para. 56.

[245] *Id.* at 20160, para. 44.

[246] These costs are recoverable only to the extent they are not already recovered as part of, or factored into the calculation of, current rates.

[247] In this regard, we note that several consumer organizations suggest that *hearing persons* who communicate in American Sign Language should also be permitted to obtain a ten-digit number from Internet-based TRS providers so that they may benefit from the numbering system and make peer-to-peer calls to deaf persons. *See, e.g.*, TDI Coalition Refresh Reply Comments at 3–4. We seek comment on that matter in the *Further Notice*. *See infra*

101. We further note that some of the start-up expenses related to the database and the administration of the database might be more appropriately borne by the Fund rather than Internet-based TRS providers. In this regard, we expect that the selection process for the database administrator may include contractual provisions addressing the direct compensation of the database administrator by the TRS Fund Administrator, as appropriate. Therefore, to the extent necessary, we authorize the TRS Fund Administrator to pay the reasonable costs of providing necessary services consistent with this *Order* directly to the database administrator rather than funnel the funding indirectly through providers. Finally, we note that to the extent the costs necessitated by the requirements adopted in this *Order* may require an adjustment to the Fund size, and therefore the carrier contribution factor, we expect the TRS Fund Administrator to monitor payments made from the Fund in connection with this *Order* and to recommend to the Commission, if and when appropriate, that the Fund size be adjusted.[248]

G. Timeline and Benchmarks

102. By this *Order*, the Commission has met its commitment to complete a final order on a ten-digit numbering plan in the second quarter of this year.[249] Recognizing that Internet-based TRS providers and the neutral third-party administrator discussed above will require time to implement this *Order*, we require, consistent with the *Interim Emergency Call Handling Order*, that the ten-digit numbering plan be implemented such that ten-digit numbers are available to end users no later than December 31, 2008.[250] In order to ensure this deadline is met, we authorize the Managing Director to include in the neutral third-party administration contract such benchmarks as are necessary to meet the implementation deadline.[251]

103. As a further means of ensuring that our implementation deadline is met, and recognizing that detailed implementation issues must be finalized prior to the implementation deadline, we hereby direct the Managing Director to include in the neutral third-party administration contract the requirement to refer all implementation disputes that it is unable to resolve in a reasonable time to the Chief, Wireline Competition Bureau. We further authorize the Managing Director, if so requested by the Chief, Wireline Competition Bureau, to retain a technical advisor that will provide such assistance as the Chief, Wireline Competition Bureau, may require to resolve such disputes.

104. As noted above, the efforts of the end-user community, industry, and the Commission were not until now sufficient to reach consensus on critical implementation issues.[252] Our decision to provide a mechanism for the rapid resolution of implementation disputes should in no way be taken as a signal that we expect such failure of cooperation to continue. Quite the opposite; this *Order* provides industry with the guidance it needs to move forward with implementation of the numbering system, emergency call processing, and other requirements set forth herein. We emphasize that each stakeholder has the general obligation, and responsibility, to ensure that the requirements of this *Order* are fully and promptly implemented. We will take any and all actions necessary to ensure that such obligations and responsibilities are fulfilled.

Section IV.A.7.

[248] *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, Order, 23 FCC Rcd 1680 (CGB Feb. 6, 2008) (adjusting Fund size and carrier contribution factor for the 2007–2008 Fund year); *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CC Docket No. 98-67, Order, 19 FCC Rcd 2993 (CGB Feb. 24, 2004) (adjusting Fund size and carrier contribution factor for the 2003–2004 Fund year).

[249] *See Interim Emergency Call Handling Order*, 23 FCC Rcd at 5269, para. 24.

[250] *See id.*

[251] *See* Workshop Webcast, http://www.fcc.gov/realaudio/mt042908.ram, at 4:53:03–4:56:08.

[252] *See supra* para. 47.

IV. FURTHER NOTICE OF PROPOSED RULEMAKING

105. Through this *Further Notice*, we seek comment on additional issues relating to the assignment and administration of ten-digit telephone numbers for Internet-based TRS. These issues include: (1) certain peripheral issues concerning the proper handling of 911 calls placed via Internet-based TRS; (2) registration period; (3) the eligibility of Internet-based TRS users to receive multiple telephone numbers; (4) the use of toll free numbers; (5) what steps the Commission should take, if any, to facilitate implementation of standards-based signaling between service providers; (6) the assignment of a single telephone number to multiple services; (7) multi-line telephone systems; (8) eligibility to obtain Internet-based TRS telephone numbers; (9) the regulatory treatment of IP CTS; (10) additional security measures designed to ensure the integrity of the TRS system and Internet-based TRS equipment and networks; (11) verification of registration; (12) application of the anti-slamming rules to protect relay consumers against unauthorized default provider changes; (13) the extent to which the CPNI rules should apply to Internet-based TRS providers; and (14) whether, and to what extent, in connection with the compensation of Internet-based TRS providers for their reasonable actual costs of complying with this *Order*, the costs of acquiring numbers, and porting fees, should be passed on to Internet-based TRS users.

1. 911 Issues

106. We seek comment on whether we should modify the call completion rule to allow for immediate answer of 911 calls.[253] Under the current call completion rule, if a CA is conducting a relay call, that CA may not terminate the call for any reason, even if a 911 call is waiting in queue. As demonstrated in the record, immediate response to 911 calls is critical so first responders can be deployed in an emergency.[254] Thus, we seek comment on whether the call completion rule should be modified so that if a CA is handling a non-emergency relay call and identifies an incoming 911 call, the CA may terminate the existing call to answer the 911 call immediately. If so, how should the rule be modified? What, if any, technical considerations must be addressed?

107. In addition, as noted above, if an Internet-based TRS user places an emergency call through an Internet-based TRS provider other than the Internet-based TRS user's default provider, the default provider may not have access to the Internet-based TRS user's Registered Location information.[255] We seek comment on ways in which Registered Location information might be made available to alternative relay providers for the purpose of routing emergency calls.

108. NeuStar proposes to require "inter-provider signaling," a process by which an alternative relay provider would route emergency calls to the 911 service provider utilized by the caller's default Internet-based TRS provider, thus ensuring the call is routed according to the Internet-based TRS user's Registered Location data.[256] We seek comment on NeuStar's inter-provider signaling proposal. We also seek comment on whether other technical solutions are available to allow an alternative relay provider to obtain access to Registered Location data for the purpose of routing emergency calls.

2. Registration Period

109. We recognize that there must be a registration period to allow existing Internet-based TRS users to register with a default provider, provide their Registered Location, and obtain their new ten-digit NANP telephone numbers.[257] We also seek comment on the length of time necessary for this

[253] *See* 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.").

[254] *See, e.g.*, TDI Coalition Refresh Comments at 6.

[255] *See supra* para. 86.

[256] NeuStar Refresh Reply Comments at 11–12.

[257] *See supra* para. 45.

registration period. Should there be a cut-off date upon which any Internet-based TRS user who has not registered with a default provider will lose the ability to use Internet-based TRS until they register with a default provider? Are there technical or other means by which Internet-based TRS providers could require an Internet-based TRS user to register prior to the reinitiation of service? Are there any other issues we must consider in connection with the registration period?

3. Eligibility for Multiple Telephone Numbers

110. We note that Internet-based TRS providers will incur costs to acquire telephone numbers for their Registered Internet-based TRS Users. There is some discussion in the record of how many numbers an Internet-based TRS user should be entitled to obtain from an Internet-based TRS provider, including allowing an Internet-based TRS user to obtain different numbers for use at particular locations (*e.g.*, home and work), allowing one telephone number per device,[258] and allowing one telephone number per household.[259] The record does not, however, reflect a consensus on this issue, and we request further comment on whether Internet-based TRS users should be entitled to obtain multiple numbers, and if so at what cost.

4. Use of Toll Free Numbers

111. We acknowledge that certain Internet-based TRS users currently use toll free numbers issued or assigned by Internet-based TRS providers or other carriers and may continue to do so.[260] We seek comment on whether these Internet-based TRS users should be subject to a fee for use of a toll free number, as are hearing users.[261] We also seek comment on any other issues involved in using toll free numbers for Internet-based TRS, including any impact the use of such numbers may have on the provision of 911 service.

5. Signaling

112. NeuStar's TRU proposes that standards-based signaling be required between service providers.[262] NeuStar suggests that inter-provider signaling using Session Initiation Protocol (SIP) for TRS will facilitate a transition from the current requirement that end devices implement H.323 protocols to an environment that will support H.323 standard and SIP end devices.[263] Because our choice of a central database provisioned with IP addresses for VRS users obviates the immediate need for inter-provider signaling, we decline to adopt NeuStar's proposal at this time. However, we invite comments on NeuStar's underlying objective of transitioning to SIP-based end devices and steps the Commission could take to facilitate the process.[264] We also seek comment on what steps the Commission should take, if any,

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[258] *See* NeuStar Workshop Deck at 13, 16.

[259] *See* Sonny Reply Refresh Comments at 2.

[260] *See supra* note Error: Reference source not found.

[261] 47 C.F.R. § 52.101(f) (defining toll free numbers as numbers "for which the toll charges for completed calls are paid for by the toll free subscriber").

[262] *See* NeuStar Workshop Deck at 17; NeuStar TRU Supplement at 1–2.

[263] Videophones and other devices that send video via the Internet to make VRS calls operate via specific call signaling protocols or standards that connect the two endpoints to the call. H.323 identifies one set of standards for transmitting real-time voice and video over packet-based networks. *See* International Telecommunication Union, *Packet-based Multimedia Communications Systems*, ITU-T Recommendation H.323 (July 2006). SIP identifies another, newer, set of standards. *See* Internet Engineering Task Force, *SIP: Session Initiation Protocol*, IETF RFC 3261 (June 2002).

[264] When we previously sought comment on whether VRS devices should be required to support a particular standard, *see Interoperability Declaratory Ruling and FNPRM*, 21 FCC Rcd at 5460–62, paras. 51–57, commenters were divided on the issue, *see, e.g.*, Comments of AT&T, Inc. at 5 (July 17, 2006) ("[T]he Commission could adopt

to facilitate implementation of standards-based signaling between service providers in other contexts, such as IP Relay.

6. Assignment of a Single Telephone Number to Multiple Services

113. The TDI Coalition asserts that functional equivalency requires that deaf and hard-of-hearing users should have one NANP number for multiple devices, such as a stationary videophone and a portable wireless videophone.[265] We note that currently, hearing users may not have one NANP number for multiple services, such as their home telephones and their portable wireless phones. Indeed, hearing users generally need to employ some type of call forwarding functionality in order to make it possible to receive calls placed to a single telephone number from multiple devices.[266] We seek comment on whether such a call forwarding system is sufficient for Internet-based TRS devices. Alternatively, we seek comment on whether the functional equivalency standard requires that the numbering system adopted in this *Order* allow for a single NANP number to be assigned to multiple services. Whether and to what extent should the cost of such additional functionalities be passed on to Internet-based TRS users?

7. Multi-Line Telephone Systems

114. Many large enterprises, including school districts, colleges, and businesses, rely on private branch exchange, Internet-based private branch exchange, Centrex, and other multi-line telephone systems (MLTS). In doing so, they regularly assign telephone numbers to their students, residents, and employees. We seek comment on what, if anything, the Commission should do to ensure that Internet-based TRS users who work in government buildings, live on college campuses, or otherwise use multi-line telephone systems have access to functionally equivalent telephone numbers and E911 services as required by this *Order*.[267] Can, and should, MLTS operators provide telephone numbers to Internet-based TRS users? What procedures would be required to effectuate such a system? What impact does the presence of a MLTS have on the ability of an Internet-based TRS user to select a default provider? Are any additional safeguards necessary to assure that emergency calls are properly routed and handled for Internet-based TRS users using MLTS?

8. Eligibility to Obtain Internet-Based TRS Telephone Numbers

115. We seek comment on who should be eligible to obtain telephone numbers from Internet-based TRS providers.[268] Commenters should address any effect of their proposals on the Interstate TRS

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.").

[265] TDI Coalition Refresh Reply Comments at 4–5; *see also* Dash Refresh Comments at 10 (discussing the possibility of assigning multiple devices to a single NANP telephone number); NeuStar Refresh Reply Comments at 15–16 (same).

[266] TDI Coalition Refresh Reply Comments at 5 (asking what actions deaf and hard-of-hearing users will need to take to "forward calls received on one 10-digit number to be received on another 10-digit number, when using the same or different communication modalities").

[267] With the exception of an *ex parte* from ACUTA, there is little in the record on this issue. *See* ACUTA *Ex Parte* at 1–2.

[268] AG Bell Refresh Reply Comments at 1 (requesting that hearing users have access to VRS numbers as "many deaf and hard of hearing . . . consumers have family members, friends, co-workers, and other associates who are hearing and who may wish to use [Internet-based TRS]"); AAPD Refresh Reply Comments at 2 (arguing that the "Commission should not take any action that could limit communication access in any way by making it difficult for hearing users to use telephone numbers to call persons who are deaf, persons who are hard of hearing or persons with speech disabilities either directly or through relay services"); Nebraska PSC Refresh Comments at 2 (stating that Internet-based TRS must "provide equal access to all users").

Fund. Are there number exhaust concerns we should consider? What safeguards should be put in place, such as eligibility requirements and/or verification? Are there other means by which the Commission or industry can or should facilitate the provision of "point-to-point" Internet-based communications among individuals with and without hearing or speech disabilities? Commenters should also address the scope of section 225 with regard to these questions.

9. Regulatory Treatment of IP CTS

116. As noted above, IP CTS raises distinct technical and regulatory issues in the context of numbering.[269] There is insufficient information in the record to make a finding on this form of Internet-based TRS. Accordingly, we seek comment on whether we should extend the numbering system adopted in this *Order* to IP CTS. How are IP CTS calls routed and how does such call routing differ from VRS and IP Relay services? Would the unique characteristics of IP CTS make it difficult or infeasible to map a NANP number to an IP address? What jurisdictional and regulatory issues must be taken into consideration should the Commission decide to extend the numbering system adopted in this *Order* to IP CTS?

10. Security

117. NeuStar raises several concerns regarding the security of the TRS numbering system and of the equipment and networks used by Internet-based TRS users. We seek comment on NeuStar's proposals to require device registration, close firewalls, and "close the network" such that default Internet-based TRS providers only accept calls from their own Registered Internet-based TRS Users, from the PSTN, or from another Internet-based TRS provider.[270] NeuStar notes that its "suggestions on security are independent of the choice of database."[271] We seek further comment on whether there are other security issues and measures that should be considered to ensure the integrity of the TRS system and the equipment and networks of Internet-based TRS users. Does an Internet-based TRS user's access ultimately need to be restricted to a single provider, as NeuStar proposes? If so, what implications, if any, are there for the ability of users to "dial around" to alternative Internet-based TRS providers? Would the Commission need to revise existing speed of answer requirements and, if so, how? Alternatively, are there standards-based technical solutions for user authentication and for securing the user firewall traversal that would permit users to continue to make or receive relay calls directly through providers other than their default provider? Could such technical solutions also enable two registered VRS users to connect directly to each other based only on information contained in a central database, without the need to rely on an intervening Internet-based TRS provider? What specific consensus-based standards would be required? We also seek comment on the Commission's authority to mandate the adoption of such security measures.

11. Verification of Registration

118. As noted, we believe that requiring Internet-based TRS providers to offer their users a means of registering will help reduce the abuse of IP Relay for fraudulent purposes.[272] Nonetheless, we recognize that significantly reducing illegitimate IP Relay calls should benefit merchants, Internet-based TRS providers, Internet-based TRS users, and indeed all users of telecommunications services, and therefore seek comment on further rules that might curb these problematic practices. Specifically, would a closed system requiring Internet-based TRS providers to validate the registration of users before

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[269] *See supra* note Error: Reference source not found.

[270] NeuStar Refresh Comments at 10-11, Attach. at 9-10. NeuStar's proposal would limit network access to only Registered Internet-based TRS Users and is identical to the process used by VoIP providers. *Id.*

[271] NeuStar Refresh Reply Comments at 10.

[272] *See supra* Section III.E.

completing non-emergency calls help curb IP Relay fraud?[273] Would such a system be possible without imposing undue burdens on legitimate Internet-based TRS users? And how are Internet-based TRS providers to verify that registration information itself is not fraudulent? Absent such a mandatory system, should the Commission specifically encourage (or even require) Internet-based TRS providers to filter out requests for Internet-based TRS that come from suspected illegitimate users, such as known fraudsters or overseas users?[274]

12. Slamming Issues

119. With our adoption of a ten-digit numbering mechanism for Internet-based TRS users, including giving users a choice of default Internet-based TRS providers to service their assigned numbers, we believe we should adopt rules to protect relay consumers against unauthorized default provider changes. We seek comment on whether such protections are necessary and, if so, whether they should be similar to our current regulations to protect against, and remedy instances of, "slamming."[275] Where commenters support the adoption of protections analogous to our current slamming regulations, we seek specific proposed rule language and, in that regard, solicit comment on proposed rule language already submitted into the record by Sorenson.[276]

120. *Background*. 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.[277] Section 258 of the Act and the Commission's implementing regulations explicitly prohibit slamming by telecommunications carriers.[278] As the Commission previously has recognized, slamming nullifies the ability of consumers to select the telecommunications providers of their choice, and "distorts the telecommunications market because it rewards those companies who engage in deceptive and fraudulent practices by unfairly increasing their customer base at the expense of those companies that market in a fair and informative manner and do not use fraudulent practices."[279] Comments we received in response to the *Numbering PN* support applying slamming rules to VRS and IP Relay providers as part of a ten-digit numbering plan, particularly in view of the fact that to obtain a ten-digit telephone number, a TRS consumer will have to choose one of these providers as the default provider to service that number. Commenters note that under this default provider system, there will be substantial competition among VRS or IP Relay providers for default status among relay consumers,

[273] NeuStar proposes one such approach, which we discuss above. *See supra* Section IV.A.10.

[274] *See* Sorenson TRS Fraud Comments at 5–9.

[275] *See* 47 U.S.C. § 258; 47 C.F.R. Part 64, Subpart K (47 C.F.R § 64.1100 *et seq.*).

[276] *See* Letter from Ruth Milkman, Counsel, Sorenson Communications, Inc., to Marlene H. Dortch, Secretary, FCC, at 2–3 & Attach. 3 (dated May 15, 2008) (Sorenson Rules *Ex Parte*); Letter from Ruth Milkman, Counsel, Sorenson Communications, Inc., to Marlene H. Dortch, Secretary, FCC, Attach. (dated May 19, 2008) (Sorenson Amended Rules *Ex Parte*).

[277] *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 (Dec. 23, 1998) (*1998 Slamming Order*).

[278] *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").

[279] *1998 Slamming Order*, 14 FCC Rcd at 1510–11, para. 1.

which may lead to slamming by such providers.[280]

121. Current Commission rules, applicable to carriers in the provision of telecommunications service, require individual subscriber consent before a carrier change may occur.[281] Such consent, moreover, must be obtained in compliance with the Commission's prescribed verification procedures, which require that a carrier, prior to effecting a carrier change, either: (1) obtain the subscriber's written or electronically signed authorization; (2) obtain confirmation from the subscriber via a toll free number provided exclusively for the purpose of confirming orders electronically; or (3) utilize an independent third party to verify the subscriber's order.[282] Commission rules also allow a telecommunications carrier to acquire by sale or transfer either part or all of another carrier's subscriber base, provided that the acquiring carrier complies with specific procedures.[283] In addition, the Commission's incumbent slamming rules set forth carrier liability for slamming;[284] procedures for resolution of an unauthorized change in carrier;[285] procedures for resolving subscriber charges by an unauthorized carrier, whether the subscriber has paid the carrier or not;[286] and procedures by which a subscriber can "freeze" his or her preferred carrier.[287] Finally, the Commission's forfeiture guidelines currently establish a standard forfeiture amount of $40,000 for a violation of the Commission's rules against slamming.[288]

122. *Scope of Slamming Rules*. We seek comment on whether we should adopt rules to safeguard against the unauthorized change of a relay user's default provider. In particular, we seek comment on whether such protections largely should track our current slamming regulations implementing section 258.[289] We note that even though some Internet-based TRS providers are telecommunications carriers in other contexts, our current slamming regulations are not applicable to these carriers or other relay providers in the context of the provision of Internet-based TRS, because the Commission's slamming regulations apply to the provision of telecommunications service. The Commission previously has concluded that TRS providers do not provide "telecommunications services" within the meaning of the Act.[290] Therefore, we seek comment on the adoption of a parallel set of slamming rules to apply specifically to VRS and IP Relay providers in the context of providing Internet-based TRS, regardless of whether these providers are telecommunications carriers in other contexts.[291] We solicit input on whether those rules should be modeled after our current slamming regulations and, if so, how to account for the unique circumstances presented by slamming as it relates to the provision of

[280] *See* CSDVRS Refresh Comments at 15–17; Sorensen Refresh Comments at 14–15; TDI Coalition Refresh Comments at 4; CSDVRS Refresh Reply Comments at 4; GoAmerica Refresh Reply Comments at 3.

[281] 47 C.F.R. § 64.1120.

[282] 47 C.F.R. § 64.1120(c).

[283] 47 C.F.R. § 64.1120(e).

[284] 47 C.F.R. § 64.1140.

[285] 47 C.F.R. § 64.1150.

[286] 47 C.F.R. §§ 64.1160, 64.1170.

[287] 47 C.F.R. § 64.1190. A preferred carrier freeze "prevents a change in a subscriber's preferred carrier selection unless the subscriber gives the carrier from whom the freeze was requested his or her express consent." 47 C.F.R. § 64.1190(a).

[288] 47 C.F.R. § 1.80(b)(4).

[289] *See* 47 C.F.R. Part 64, Subpart K ("Changes in Preferred Telecommunications Service Providers").

[290] *See 2000 TRS Order*, 15 FCC Rcd at 5174–75, paras. 79–81.

[291] For instance, in lieu of applying to "carriers," *see* 47 C.F.R. § 64.1100(a)–(d), these rules could apply to "providers," defined to include Internet-based TRS providers. *See, e.g.*, Sorenson Rules *Ex Parte*, Attach. 3, at 1; Sorenson Amended Rules *Ex Parte*, Attach. at 1.

ten-digit numbers to VRS and IP Relay users. We also seek comment on whether our current slamming rules can be modified in such a way that they also may apply to VRS and IP Relay.

123. *Jurisdiction*. As a threshold matter, we seek comment generally on the Commission's authority with respect to extending slamming requirements to VRS and IP Relay providers. Section 258, by its own terms, applies only to "telecommunications carrier[s],"[292] which do not include carriers or other relay providers in the context of their provision of relay services.[293] We seek comment on whether, if we were to extend slamming rules to VRS and IP Relay providers, we can employ ancillary jurisdiction under Title I of the Act to do so. The Commission can employ ancillary jurisdiction where it has subject matter jurisdiction over the service to be regulated and the assertion of jurisdiction is "reasonably ancillary" to the effective performance of our responsibilities.[294] It is clear from section 225 and the Commission's implementing orders that the regulation of TRS falls within the Commission's jurisdiction.[295] Furthermore, we tentatively conclude that, because of the risk of slamming engendered by the adoption of a numbering system for VRS and IP Relay providers, adopting anti-slamming rules is "reasonably ancillary" to our regulation of relay services and our statutory duty to ensure that relay services are available in the most efficient manner to hearing- and speech-impaired individuals.[296] We seek comment on this tentative conclusion. We also seek comment on whether using our Title I ancillary jurisdiction in this manner is consistent with other instances where we have extended Title II obligations to Internet-based providers,[297] and extended our TRS requirements to interconnected VoIP providers pursuant to section 225(b) of the Act and our Title I ancillary jurisdiction.[298]

124. *Substance of Anti-Slamming Rules*. We seek comment on the specific measures we should adopt to protect against slamming that may result from the adoption of a ten-digit numbering mechanism for Internet-based TRS users.[299] More specifically, we seek comment on whether any rules

[292] 47 U.S.C. § 258(a).

[293] Though some relay providers are "telecommunications carriers" in the context of providing "telecommunications service," these same relay providers are not considered "telecommunications carriers" in the context of providing relay services. *See 2000 TRS Order*, 15 FCC Rcd at 5174–75, paras. 79–81.

[294] *U.S. v. Southwestern Cable Co.*, 392 U.S. 157, 177–78 (1968).

[295] *See* 47 U.S.C. § 225(b) (granting Commission authority to administer and enforce section 225's relay services mandate); 47 U.S.C. § 225(d) (directing Commission to develop and implement regulations governing the provision of relay services); *2000 TRS Order*, 15 FCC Rcd at 5141–42, para. 1 ("Section 225 requires the Commission to ensure that interstate and intrastate relay services are available throughout the country and to establish regulations to ensure the quality of relay service.").

[296] *See* 47 U.S.C. § 225(b)(1).

[297] *See IP-Enabled Services; Implementation of Sections 255 and 251(a)(2) of The Communications Act of 1934, as Enacted by The Telecommunications Act of 1996: Access to Telecommunications Service; Telecommunications Equipment and Customer Premises Equipment by Persons with Disabilities; Telecommunications and Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; The Use of N11 Codes and Other Abbreviated Dialing Arrangements*, WC Docket No. 04-36, CC Docket No. 92-105, WT Docket No. 96-198, CG Docket No. 03-123, Report and Order, 22 FCC Rcd 11275, 11282–83, para. 15 (June 15, 2007) (*Sections 225/255 VoIP Order*) (describing Commission's application of E911 calling, universal service contribution, and customer proprietary network information obligations to interconnected VoIP providers).

[298] *See id.* at 11292–93, para. 35. We extended our TRS requirements to interconnected VoIP providers based on our finding that doing so "will serve the core objectives of section 225 and our TRS rules by making TRS widely available and by providing functionally equivalent services for the benefit of individuals with hearing or speech disabilities." *Id.* at 11293, para. 35.

[299] As noted above, a threshold difference between the current slamming rules and the rules that we could adopt to apply to VRS and IP Relay providers is that the new rules could be addressed to TRS "providers" and "users," as opposed to telecommunications "carriers" and "subscribers."

we adopt should prohibit covered TRS providers from submitting or executing a change on behalf of a TRS user in the selection of a default provider except in accordance with prescribed procedures. We also seek comment on how to ensure and verify that consumer consent was obtained before a provider change is effectuated. Would it suffice to require that a provider, prior to effectuating a provider change, either: (1) obtain the TRS user's written or electronically signed authorization; or (2) obtain the TRS user's electronic authorization? We do not at this juncture propose utilization of an independent third party to verify the TRS user's order regarding the default provider change, as we do not think such a step is necessary where the relay user's written or electronically signed authorization may be obtained readily, as is the case with Internet-based relay.[300] We believe that if experience dictates a need for verification procedures other than the two we propose, we can revisit this issue at a later point. We seek comment on these proposed verification procedures, including the absence of a third-party verification mechanism.

125. In addition, we seek comment on how to craft liability provisions for violations of any new slamming rules that we adopt for Internet-based TRS providers. Specifically, we seek comment on whether, as with our current slamming regulations, different liability mechanisms should exist depending on whether the unauthorized provider already has been paid. We seek comment on liability provisions in circumstances where the unauthorized provider has not yet been reimbursed by the Fund for minutes incurred by a user whose default provider was impermissibly transferred. Section 64.1160 of the Commission's rules provides that, in the telecommunications service context, an unauthorized carrier must remove from a subscriber's bill all charges incurred for service provided during the first 30 days after the alleged unauthorized change occurred.[301] Section 64.1160 was designed to provide carriers with the incentive to verify all carrier changes properly, in order to protect themselves against any possible inappropriate consumer claims of slamming, as well as to use methods that provide convincing proof of a subscriber's authorization. Relatedly, it provides incentive for carriers to implement strictly the Commission's verification rules because failure to comply may mean that the carriers will not get paid for any services rendered after an unauthorized switch.[302] We seek comment on whether we should adopt a similar rule in the context of VRS and IP Relay. For instance, should the unauthorized provider be required to remove all minutes from its monthly submission to the TRS Fund Administrator for services provided to the slammed user for the first 30 days after the alleged unauthorized change in providers occurred? If so, do the Commission and the TRS Fund Administrator have sufficient safeguards in place to ensure that these minutes actually are excluded from the unauthorized provider's monthly submission? We also welcome other suggestions for liability provisions in these circumstances.

126. In circumstances where the unauthorized provider already has been compensated from the Fund, should we require that provider to forward to the authorized provider an amount equal to 100% of all payments the unauthorized provider received from the Fund for minutes attributable to the slammed user? We believe that as part and parcel of any slamming rules that we adopt for VRS and IP Relay, these liability amounts would not be recoverable from the Fund, nor could they be built into the cost data submitted to calculate the rates for subsequent Fund years.

127. We also seek comment on whether liability provisions, as applied to any new slamming rules we adopt for VRS and IP Relay providers, should differ from those in the existing slamming regulations in light of the fact that the costs of Internet-based TRS are not borne by TRS users, rather they are paid from the Fund. Therefore, for example, unlike in the context of telecommunications services

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[300] *Cf.* 47 C.F.R. § 64.1120(c)(3) (permitting use of an independent third party to verify an authorized switch of telecommunications carrier).

[301] *See* 47 C.F.R. § 64.1160.

[302] *See 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, First Order on Reconsideration, 15 FCC Rcd 8158, 8161–63, paras. 8, 10 (May 3, 2000) (citing *1998 Slamming Order*, 14 FCC Rcd at 1518–19, paras. 13–14).

billed to subscribers, there is no basis to relieve the VRS or IP Relay user of charges paid for service when a provider has been changed without authorization. In this regard, we seek comment on whether unauthorized providers should be liable to remit to the Fund an additional 50% of the amount paid to the unauthorized provider for the provision of TRS to the slammed user, regardless of whether the unauthorized provider already has been reimbursed by the Fund. This is analogous to our current slamming regulations, where the unauthorized carrier is liable to repay the authorized carrier and slammed subscriber a total of 150% of the charges incurred after the unauthorized carrier change, albeit only where the slammed subscriber already has paid the charges to the unauthorized carrier.[303] We seek comment on whether a provision whereby an unauthorized provider is liable to remit a total of 150% of the payments associated with the user's minutes of use after the unauthorized change is appropriate as a deterrent to slamming in the context of Internet-based TRS, or whether it is unnecessary if we adopt forfeiture provisions governing slamming by VRS and IP Relay providers.[304] We also solicit input on whether any liability provisions that we adopt should constitute a different percentage of payments, should be distributed in a different proportion or to different recipients, or should be measured in a different manner altogether.

128. Regarding complaint resolution, we seek comment on what procedures to adopt when a provider is informed by a user of an unauthorized change in provider, including procedures by which the allegedly unauthorized provider may rebut the allegation that an unauthorized change occurred. Does section 64.1150 of our current slamming regulations provide a good model for any such procedures that we adopt?[305] Section 64.1150 generally sets forth procedures for resolution of unauthorized changes in preferred carrier, such as notifying the slammed subscriber of his or her options for filing a complaint or otherwise seeking resolution of the unauthorized change, and what an allegedly unauthorized carrier should do to rebut the allegation of an unauthorized carrier change.[306] One element of section 64.1150 that we would propose to omit from new slamming rules applicable to VRS and IP Relay providers is the provision for state commission administration of the slamming rules.[307] Because states generally do not oversee the provision of VRS and IP Relay, and do not compensate VRS and IP Relay providers at this time, we propose to exclude an option for a state to resolve VRS and IP Relay slamming complaints or otherwise administer the slamming rules. We seek comment on this proposal. We also seek comment on whether there should be a deadline by which relay users must notify unauthorized providers of an alleged unauthorized provider change. Has delay in notification of alleged unauthorized carrier changes or filing of slamming complaints been an issue under our current slamming regulations?

129. Furthermore, we seek comment on whether we should adopt other rules substantially similar to their counterparts in the current slamming regulations, though modified to apply to the specific circumstances of the numbering and default provider scheme for VRS and IP Relay. For instance, should we allow a VRS or IP Relay provider to acquire, by sale or transfer, either part or all of another provider's consumer base, provided that the acquiring provider complies with specific procedures?[308] Should we set forth requirements for a letter of agency to serve as a valid request for a change in default VRS or IP Relay provider?[309] Should we adopt procedures by which a TRS user can "freeze" his or her default VRS or IP Relay provider, which would prevent a change in providers unless the consumer gives the provider

[303] *See* 47 C.F.R. §§ 64.1140(a), 64.1170.

[304] *See infra* para. 130.

[305] *See* 47 C.F.R. § 64.1150.

[306] *See id.*

[307] *Cf.* 47 C.F.R. §§ 64.1110, 64.1150(b) (permitting state commissions to administer slamming rules).

[308] *See* 47 C.F.R. § 64.1120(e).

[309] *See* 47 C.F.R. § 64.1130.

from whom the freeze was requested his or her express consent?[310] The Commission adopted carrier freeze mechanisms nearly ten years ago in order to provide an extra measure of consumer protection against fraud and slamming. In doing so, however, the Commission also recognized the potential for their implementation in an unreasonable or anticompetitive manner.[311] Is the threat of slamming in the context of VRS and IP Relay sufficient to justify this extra protection? We request that commenters addressing default provider freezes also discuss the positives and negatives of preferred carrier freezes in the telecommunications context through the lens of nearly ten years' experience with them.

130. Finally, as noted above, the Commission's forfeiture guidelines currently establish a standard forfeiture amount of $40,000 for a violation of the Commission's rules against slamming.[312] Forfeitures pursuant to section 1.80(b)(4) are in addition to the carrier liabilities set forth in sections 64.1160 and 64.1170 of the Commission's rules for unauthorized changes in preferred carrier. We seek comment on the applicability of this provision to instances of slamming by VRS or IP Relay providers. As with the slamming liability amounts discussed above,[313] unauthorized providers would not be permitted to recover forfeiture amounts levied under section 1.80(b)(4) of our rules from the Fund, and may not build them into cost data submitted to calculate the rates for subsequent Fund years. In addition to the foregoing issues and proposals on which we seek comment, we solicit suggestions on whether there are any other provisions, either currently in our slamming regulations or otherwise, that should be applied to VRS and IP Relay providers if we adopt new anti-slamming rules for these Internet-based relay services.

13. Consumer Privacy

131. In this section, we seek comment on what, if any, specific actions the Commission should take to ensure the privacy and security of TRS consumers' call records or other personally identifiable account or usage information, including the information users provide in connection with the Registered Location requirement discussed above.[314]

132. *Section 222 and the Commission's CPNI Rules*. To safeguard consumer privacy interests in a newly deregulated telecommunications market, in 1996 Congress added section 222 to the Communications Act[315] to regulate telecommunications carriers' "use and disclosure of customer proprietary network information (CPNI) and other customer information obtained by carriers in their provision of telecommunications services."[316] Designed to reflect a "balance of competitive and consumer privacy interests with respect to CPNI," section 222 "embodies the principle that customers must be able to control information they view as sensitive and personal from use, disclosure, and access by carriers."[317] CPNI is "information that relates to the quantity, technical configuration, type, destination, location, and amount of use of a telecommunications service" that is available to a carrier

[310] *See* 47 C.F.R. § 64.1190 (governing preferred carrier freezes).

[311] *See 1998 Slamming Order*, 14 FCC Rcd at 1576–79, paras. 93–99.

[312] 47 C.F.R. § 1.80(b)(4).

[313] *See supra* para. 126.

[314] *See supra* paras. 80–81.

[315] 47 U.S.C. § 222.

[316] *See Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information; Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as Amended*, Second Report and Order and Further Notice of Proposed Rulemaking, CC Docket Nos. 96-115, 96-149, 13 FCC Rcd 8061, 8061, para. 1 (Feb. 26, 1998) (*CPNI Order*) (explaining the regulatory backdrop of the enactment of section 222).

[317] *Id.* at 8065, para. 3.

"solely by virtue of the carrier-customer relationship."[318] As a practical matter, CPNI may include information such as the phone numbers called by a consumer; the frequency, duration, and timing of such calls; and any services purchased by the consumer, such as call waiting. Section 222(c)(1) provides that a carrier may only use, disclose, or permit access to customers' CPNI in limited circumstances: (1) as required by law; (2) with the customer's approval;[319] or (3) in its provision of the "telecommunications service from which such information is derived," or in its provision of "services necessary to, or used in, the provision of such telecommunications service."[320]

133. In the *CPNI Order* and subsequent orders, the Commission promulgated rules implementing the statutory requirements of section 222.[321] In doing so, the Commission found that customer approval could be inferred from an existing carrier-customer relationship for certain uses of CPNI by the carrier itself.[322] The Commission thus adopted a "total service approach" under which a carrier could, without notice to the customer, use CPNI to market new services incidental to the service already being provided (such as caller ID marketed to an existing local service customer).[323] The total service approach did not extend to disclosure of CPNI beyond the carrier itself to third parties.

134. The Commission also adopted rules to ensure telecommunications carriers establish effective safeguards to protect against unauthorized use or disclosure of CPNI.[324] Among other things, the

[318] *See* 47 U.S.C. § 222(h)(1). CPNI also includes information contained in customer bills. *Id.*

[319] The Commission identified two possible methods of ascertaining customer approval: (1) to presume customer approval unless the customer specifies otherwise (opt-out approach); or (2) to require a customer to affirmatively indicate approval (opt-in approach). In its first order interpreting section 222, the Commission determined that opt-in best reflected Congress's intent to the extent that the term "approval" generally connotes "an informed and deliberate response," and "express approval [by opt-in] best insures such a knowing response." *CPNI Order*, 13 FCC Rcd at 8130, para. 91. The United States Court of Appeals for the Tenth Circuit vacated on First Amendment grounds the Commission's decision requiring carriers to obtain opt-in consent before disclosing CPNI to a third party. *U.S. West v. FCC*, 182 F.3d 1224, 1237–38 (10th Cir. 1999) (holding that "opt-in" approach did not advance FCC's asserted interest in protecting privacy of CPNI because of lack of evidence showing harm to privacy is real and because FCC failed to adequately consider less restrictive "opt-out" strategy). In light of the Tenth Circuit's objections to the opt-in approach, the Commission on remand adopted an opt-out approach for carriers' own use of CPNI for marketing purposes and for disclosures of CPNI to third parties for those purposes. *Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information*, Third Report and Order and Third Further Notice of Proposed Rulemaking, CC Docket No. 96-115, 17 FCC Rcd 14860, 14874, para. 30 (July 25, 2002). Last year, the Commission, in response to "new circumstances," changed its rules once again to require opt-in consent before disclosing CPNI to a third party *other than* "agents" and "affiliates that provide communications-related services." *Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information*, Report and Order and Further Notice of Proposed Rulemaking, CC Docket No. 96-115, 22 FCC Rcd 6927, 6947, para. 37 (Apr. 2, 2007) (*EPIC CPNI Order*) (requiring opt-in for joint venture partners and independent marketing contractors), *pet. for rev. pending, NCTA v. FCC*, Docket No. 07-1312 (D.C. Cir., filed Aug. 8, 2007).

[320] *See* 47 U.S.C. § 222(c)(1).

[321] *See* 47 C.F.R. § 64.2001 *et seq*.

[322] *See CPNI Order*, 13 FCC Rcd at 8080, para. 23. The Commission explained, "the language of section 222(c)(1)(A) and (B) reflects Congress' judgment that customer approval for carriers to use, disclose, and permit access to CPNI can be inferred in the context of an existing customer-carrier relationship. This is so because the customer is aware that its carrier has access to CPNI, and, through subscription to the carrier's service, has implicitly approved the carrier's use of CPNI within that existing relationship." *Id.*

[323] *See id.* (explaining "total service approach" to defining boundaries of customer's implied consent concerning use of CPNI).

[324] *See id.* at 8195, para. 193.

rules require carriers to: (1) implement a system by which the status of a customer's CPNI approval can be clearly established prior to the use of CPNI;[325] (2) train their personnel as to when they are and are not authorized to use CPNI (and establish an express disciplinary process);[326] (3) maintain a record of instances in which CPNI has been disclosed or provided to third parties, or where third parties have been allowed access to CPNI, and to maintain such records for at least one year;[327] (4) establish a supervisory review process for "outbound" marketing campaigns under which sales personnel must obtain supervisory approval of proposed "outbound" marketing requests for customer approval;[328] and (5) certify annually regarding its compliance with the Commission's CPNI requirements and to make this certification publicly available.[329]

135. In last year's *EPIC CPNI Order*, the Commission adopted additional safeguards to protect customers' CPNI in response to concerns raised in the record and in a petition for rulemaking filed by the Electronic Privacy Information Center (EPIC) regarding unauthorized disclosure and the practice of "pretexting."[330] The Commission defined "pretexting" as "the practice of pretending to be a particular customer or other authorized person in order to obtain access to that customer's call detail or other private communications records."[331] Based on its review of the record, the Commission determined it "must take additional steps to protect customers from carriers that have failed to adequately protect CPNI."[332] In particular, the *EPIC CPNI Order*: (1) restricted disclosure of CPNI over the telephone and required passwords to be used in customer-initiated calls seeking CPNI;[333] (2) required passwords for on-line access to customer account information;[334] and (3) adopted a number of notification requirements for changes in account status and unauthorized disclosures of CPNI.[335] The Commission also changed its rules to require an opt-in approach for carrier disclosure to any third party other than "agents" and "affiliates that provide communications-related services."[336] Finally, relying on its ancillary jurisdiction under Title I of the Communications Act, the Commission extended the application of the CPNI rules to interconnected VoIP providers.[337]

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[325] 47 C.F.R. § 64.2009(a); *see also CPNI Order*, 13 FCC Rcd at 8198, para. 198.

[326] 47 C.F.R. § 64.2009(b); *see also CPNI Order*, 13 FCC Rcd at 8198, para. 198.

[327] 47 C.F.R. § 64.2009(c); *see also CPNI Order*, 13 FCC Rcd at 8198–99, para. 199.

[328] 47 C.F.R. § 64.2009(d); *see also CPNI Order*, 13 FCC Rcd at 8199, para. 200.

[329] 47 C.F.R. § 64.2009(e); *see also CPNI Order*, 13 FCC Rcd at 8199, para. 201.

[330] *EPIC CPNI Order*, 22 FCC Rcd at 6928, para. 1 n.1.

[331] *Id.* "Call detail" includes "any information that pertains to the transmission of specific telephone calls including, for outbound calls, the number called, and the time, location, or duration of any call and, for inbound calls, the number from which the call was placed, and the time, location, or duration of any call." *Id.* at 6936, para. 13 n.45.

[332] *Id.* at 6933, para. 12.

[333] *Id* at 6937–39, paras. 15–17.

[334] *Id.* at 6940–41, paras. 20–22.

[335] *Id.* at 6942, 6943–45, paras. 24, 26–32.

[336] 47 C.F.R. § 64.2007(b); *see also EPIC CPNI Order*, 22 FCC Rcd at 6947–53, paras. 37–49 (finding that new circumstances – including the growing illicit demand for personal information, the significant harm that can result from breaches of confidentiality, and the increasing risk of disclosure – "force us to reassess our existing regulations").

[337] *EPIC CPNI Order*, 22 FCC Rcd at 6954–57, paras. 54–59. The Commission explained that it was extending the CPNI rules to interconnected VoIP providers based on consumer expectations that their telephone calls would be private, regardless of whether a call was made using the service of a wireline carrier, a wireless carrier, or an interconnected VoIP provider, given that these services are "virtually indistinguishable" from the perspective of a

136. *Confidentiality of TRS Customer Information*. In the *2000 TRS Order*, the Commission considered whether the CPNI requirements of section 222 would apply to the transfer of "customer profile information" between two TTY-based TRS providers when there is a change in providers.[338] In concluding that section 222's requirements would not restrict an exiting TTY-based TRS provider from transferring this information to an incoming provider (the transfer of which the Commission deemed necessary to ensure a smooth transition between providers), the Commission focused on the scope of the term "telecommunications carriers" in section 222.[339] The Commission observed that the applicability of section 222 to TRS providers depends on whether TRS providers provide "telecommunications services" and are therefore "telecommunications carriers[,]" as defined in the Communications Act.[340] Concluding that TRS providers do not provide "telecommunications" within the meaning of the Act, the Commission determined that section 222 would not apply to an existing TRS provider's transfer of customer profile information to a new provider.[341]

137. While it did not apply its CPNI rules to TRS, the Commission nevertheless emphasized that customer profile information "may not be used for any purpose other than the provision of TRS."[342] Noting that the confidentiality of customer profile information is of "paramount importance" to TRS users and that unrestricted access to TRS user information would violate the "reasonable privacy expectations" of relay users, the Commission concluded that TRS customer profile information "shall not be used for any purpose other than to connect the TRS user, for whom the profile exists, with the called parties desired by that TRS user."[343] The Commission further concluded that profile information "shall not be sold, distributed, shared, or revealed in any way" by the TRS provider or its employees, "unless compelled to do so by lawful order or in compliance with our requirement regarding a change in vendor."[344]

138. The proper handling of TRS consumer information was subsequently addressed in the

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consumer making an "ordinary telephone call." *Id*. at 6956, para. 56. The Commission also found that extending section 222's protections to interconnected VoIP service customers is necessary to protect the privacy of wireline and wireless customers who place calls to or receive calls from interconnected VoIP customers, insofar as CPNI of interconnected VoIP customers may include call information concerning both "calling and called parties." *Id*. at 6956, para. 57. The Commission determined that both elements for ancillary jurisdiction had been satisfied. First, it reaffirmed its general subject matter jurisdiction over interconnected VoIP. Second, it demonstrated that extending CPNI obligations to interconnected VoIP providers is necessary to the fulfillment of its duties to protect subscribers' private information under section 222 and to the fulfillment of its public safety duties under section 1, and, if the order motivates consumers to purchase additional interconnected VoIP services, "could promote competition in the local telecommunications market." *Id*. at 6957, para. 59.

[338] *2000 TRS Order*, 15 FCC Rcd at 5173–75, paras. 79–81. "Customer profile information" refers to information gathered by a TRS provider to facilitate handling a call relating to a TRS user's preferences regarding, among other things, the customer's preferred interexchange carrier, blocking preferences, CA gender preferences, frequently dialed numbers for speed dialing, language preferences (English, American Sign Language, a foreign language), calling instructions, preferred CA typing speed, and so forth. *See id.* at 5173, para. 77.

[339] *Id.* at 5174, para. 79 (section 222 applies to "telecommunications carriers" only); *see also* 47 U.S.C. § 222(a).

[340] *2000 TRS Order*, 15 FCC Rcd at 5174, para. 79 (citing 47 U.S.C. § 153(44) (defining "telecommunications carrier"), and 47 U.S.C. § 153(46) (defining "telecommunications service")).

[341] *Id.*; *see also* 47 U.S.C. § 222(a) (section 222 applies to "telecommunications carriers"). In that order, the Commission did not consider whether it could assert its Title I ancillary jurisdiction to apply the CPNI requirements to TRS providers.

[342] *2000 TRS Order*, 15 FCC Rcd at 5175, para. 83.

[343] *Id*.

[344] *Id*.

2005 TRS Marketing Practices PN,[345] and in the recent *Consumer Contacts Declaratory Ruling*.[346] In the 2005 item, the Consumer & Governmental Affairs Bureau noted that apparently "some providers use their customer database to contact prior users of their service and suggest, urge, or tell them to make more VRS calls."[347] The item concluded that this marketing practice constitutes an "improper use of information obtained from consumers using the service," is inconsistent with the notion of functional equivalency, and may constitute a fraud on the Interstate TRS Fund because the Fund, and not the consumer, pays for the cost of the VRS call.[348] Inasmuch as the purpose of TRS is to allow persons with certain disabilities to use the telephone system, the Bureau stated that entities offering TRS should not contact users of their service in order to encourage or require them to place more TRS calls; rather, the provider must be "available to handle the calls that consumers choose to make."[349]

139. In the recent *Consumer Contacts Declaratory Ruling*, the Commission provided examples of permissible and prohibited uses of information derived from consumer or call databases established in conjunction with section 225 and clarified that, consistent with the Commission's rules and orders, providers may use information derived from such a database to contact users solely for purposes *related to the handling of relay calls*.[350] Therefore, we explained that a provider reasonably could contact relay users (using TRS consumer or call database information) to inform users of a service outage, to respond to a consumer's call for emergency services, to assist in the delivery of emergency services, or to provide technical support for TRS products or services used by the consumer.[351] We further explained that providers may use customer data developed through participation in the TRS program to comply with a federal statute, a Commission rule or order, a court order, "or other lawful authority."[352] By contrast, we clarified that providers may *not* use consumer or call database information (or any other source of consumer information) to contact TRS consumers to offer financial or other incentives to generate additional or longer calls that can be billed to the Fund.[353] Because a consumer or call database that a TRS provider develops and maintains through participation in the TRS program is "inextricably tied" to that federally funded program, we explained that the Commission may prohibit the use of a TRS consumer or call database for purposes unrelated to the handling of relay calls.[354]

[345] *See FCC Clarifies that Certain TRS Marketing and Call Handling Practices are Improper*, CC Docket No. 98-67, CG Docket No. 03-123, Public Notice, 20 FCC Rcd 1471, 1473 (Jan. 26, 2005) (*2005 TRS Marketing Practices PN*).

[346] *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, Declaratory Ruling, CG Docket No. 03-123, FCC 08-138 (May 28, 2008) (*Consumer Contacts Declaratory Ruling*).

[347] *See 2005 TRS Marketing Practices PN*, 20 FCC Rcd at 1473.

[348] *Id.* (internal footnotes omitted).

[349] *Id.* In that same year, the Commission issued the *VRS/IP Relay 911 NPRM*. In considering whether to adopt a proposed location registration requirement for VRS and IP Relay in that item, the Commission sought comment on what, if any, measures it should adopt to ensure the confidentiality of VRS and IP Relay users' location information, assuming the adoption of such a requirement by the Commission. *VRS/IP Relay 911 NPRM*, 20 FCC Rcd at 19485, para. 20.

[350] *Consumer Contacts Declaratory Ruling*, FCC 08-138, para. 9.

[351] *Id.*

[352] *Id.*

[353] *Id.*

[354] *Id.*, para. 11. We similarly clarified that the use of consumer or call database information acquired in the provision of federally subsidized TRS services for purposes of lobbying end users to support a service provider's position before the Commission is likewise prohibited, as this purpose is not directly related to the purpose of handling relay calls. *Id.*

140. Most recently, the Commission released the *Numbering PN* to refresh the record on numbering issues identified in the 2006 *Interoperability Declaratory Ruling and FNPRM*.[355] Among other things, the *Numbering PN* requested comment on "issues directly related to numbering," including application of the CPNI rules.[356]

141. *Discussion*. We seek comment on what, if any, specific actions the Commission should take to ensure the privacy and security of Internet-based TRS users' personal information, including the information users provide in connection with the Registered Location requirement described in section III.C. Comments addressing the issue of CPNI in response to the *Numbering PN* generally support extending the CPNI rules, or CPNI-like rules, to TRS providers in conjunction with the establishment of a ten-digit numbering plan.[357] Only one party, however, in an *ex parte* submission filed after the close of the comment cycle, addresses with specificity how such rules would apply in the TRS context.[358] In addition, none of the parties addresses whether or how the CPNI rules, if applied to TRS, would better serve the interests of TRS providers and TRS consumers than do the Commission's existing rules governing the use of TRS consumer or call database information, or how those provisions might interrelate. Accordingly, we seek further comment on the specific issues set forth below.

142. *Scope of Consumer Privacy Requirements*. Assuming the Commission adopts additional safeguards governing the use and disclosure of TRS customer data, we seek comment on whether the new rules should apply to *all* TRS providers, including traditional TTY-based providers, or only to VRS and IP Relay providers (or some other subset of TRS providers). We also seek comment on whether the new rules should vary according to service type or whether the same rules should apply uniformly to all forms of TRS.

143. *Extending the CPNI rules to TRS*. Assuming we apply the CPNI rules to TRS providers, we seek comment on whether we should modify the present CPNI rules in the TRS context and, if so, how. Parties urging us to extend the application of our CPNI rules to TRS providers are asked to identify the specific CPNI rules they believe should apply, as well as any rule revisions that would be required to accommodate the unique nature of Internet-based TRS. In addition, we ask parties to comment on Sorenson's proposed revisions to the CPNI rules in its May 15th *ex parte* submission.[359] For example, we seek comment on the Commission's authority under section 225 to extend the CPNI protections, as suggested by Sorenson, to customers receiving "point-to-point services," given the parameters established by section 225, under which TRS is designed to permit persons with hearing and speech disabilities to access the telephone system to call persons without such disabilities.[360]

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[355] *Numbering PN*; *see also Interoperability Declaratory Ruling and FNPRM*, 21 FCC Rcd at 5459–60, paras. 44–50 (seeking comment on the feasibility of establishing a global, uniform ten-digit telephone numbering system for VRS).

[356] *Id*.

[357] *See, e.g.*, GoAmerica Refresh Reply Comments at 3 (stating that "[a]ll commenters . . . agree that CPNI-like . . . rules are necessary" as part of adopting a ten-digit numbering plan); CSDVRS Refresh Reply Comments at 5 (support application of the Commission's CPNI rules to "the universal numbering system"); TDI Coalition Refresh Comments at 4 ("Just as hearing users of telecommunications are entitled to the protections of the [CPNI rules], functional equivalency requires that TRS users should be entitled to the same CPNI protections . . . .").

[358] Sorenson Rules *Ex Parte* at 2 (noting an attached redline of the CPNI rules showing the changes "needed to extend those rules to protect users of [TRS], users who make point-to-point calls, and users who receive a ten-digit geographic NANP number from a TRS provider"); *cf.* GoAmerica Refresh Comments at 20 (urging the Commission "simply [to] amend" section 64.2003(o) of its rules to include TRS providers as "telecommunications carriers" subject to the Commission's CPNI rules for purposes of that subpart).

[359] Sorenson Rules *Ex Parte* at 2 & Attach. 1 (proposing revisions to the CPNI rules).

[360] 47 U.S.C. § 225(a)(3) (definition of TRS). In its *ex parte*, Sorenson proposes to define "point-to-point" service as "a video service that facilitates the transmission of non-relay calls in which a video end-user device (*e.g.*, a

144. In addition, if the Commission were to extend the CPNI rules to TRS, we seek comment on whether we may rely on our ancillary authority under Title I as the jurisdictional basis for doing so. As noted above, ancillary jurisdiction may be employed when Title I of the Act gives the Commission subject matter jurisdiction over the service to be regulated and the assertion of jurisdiction is "reasonably ancillary to the effective performance of [its] various responsibilities."[361] In the *EPIC CPNI Order*, the Commission used ancillary jurisdiction to extend the CPNI requirements of Title II to interconnected VoIP providers notwithstanding the fact that the Commission had not formally classified interconnected VoIP as a Title I "information service" or as a Title II "telecommunications service" within the meaning of the Act.[362] Accordingly, assuming TRS is not a telecommunications service under the Communications Act definition, we seek comment on the use of ancillary jurisdiction to extend the application of the Commission's CPNI requirements to TRS providers.[363]

145. *Interplay between CPNI requirements and existing restrictions on TRS customer data*. If the Commission were to apply some or all of the CPNI requirements to TRS, we seek comment on how best to reconcile the CPNI rules with the existing TRS restrictions on TRS providers' use of customer database information. The Commission has repeatedly stated that TRS customer data may not be used for any purpose other than the provision of TRS.[364] The Commission has also emphasized that, given that the obligation placed on TRS providers is to be available to handle calls consumers choose to make, when they choose to make them, *i.e.*, to be the "dial tone" for a consumer that uses relay to call to a voice telephone user, and because consumers do not pay for this service but rather providers are compensated pursuant to Title IV of the ADA, providers may not offer relay users financial and similar incentives, directly or indirectly, to use their service.[365] In contrast, section 64.2005(a) of the Commission's CPNI rules permits a carrier to "use, disclose, or permit access to CPNI for the purpose of providing or marketing service offerings" among the categories of service to which the customer already subscribes from the carrier,[366] and section 64.2005(c)(3) permits the use or disclosure of CPNI "to market services formerly known as adjunct-to-basic services."[367] In light of these and other differences between TRS, where there traditionally has been no subscription agreement and consumers do not pay for the service, and other market-based communications services that are paid for by the consumer, we seek comment on

videophone) connects to another such device via a ten-digit NANP number that has been assigned to the called device, allowing deaf, hard-of-hearing, speech-disabled, and other individuals to communicate directly in real-time via sign language without the assistance of an interpreter." Sorenson Rules *Ex Parte*, Attach. 1, at 2.

[361] *See United States v. Southwestern Cable Co.*, 392 U.S. 157, 177–78 (1968).

[362] *EPIC CPNI Order*, 22 FCC Rcd at 6954–57, paras. 54–59. In using ancillary jurisdiction to extend the Commission's CPNI rules to interconnected VoIP providers, the Commission found that: (1) interconnected VoIP service "is increasingly used to replace analog voice service," and that it is therefore reasonable for American consumers to expect that their calls will be private irrespective of whether they are using traditional telephone services or interconnected VoIP services; (2) because the CPNI of interconnected VoIP customers includes call histories to or from traditional phone service users, extending section 222's protection to interconnected VoIP service customers is necessary to protect the privacy of those traditional phone service users; and (3) applying the CPNI protections to interconnected VoIP providers may encourage customer migration to VoIP services and therefore spur technological development in the digital telephone realm. *Id*. at 6956–57, paras. 55–59.

[363] Because the question of the proper classification of particular services as "telecommunications services" or "information services" under the Communications Act is beyond the scope of this proceeding, we examine our authority to extend the application of the CPNI rules to TRS only under our Title I ancillary authority.

[364] *See, e.g.*, *2000 TRS Order*, 15 FCC Rcd at 5175, para. 83 (stating that customer profile information "shall not be used for any purpose other than to connect the TRS user, for whom the profile exists, with the called parties [identified] by that TRS user").

[365] *2007 TRS Rate Methodology Order*, 22 FCC Rcd at 20173–75, paras. 89–94 (internal footnotes omitted); *see also Consumer Contacts Declaratory Ruling*, FCC 08-138, para. 13.

[366] 47 C.F.R. § 64.2005(a).

whether, in the TRS context, we should apply CPNI requirements that permit the use or disclosure of personally identifiable consumer information for marketing purposes and, if so, whether this action is consistent with the Commission's existing TRS requirements. We also seek comment on how replacing existing protections with CPNI requirements would affect the privacy of TRS consumers with regard to customer profile information; specifically, would any data protected by the current rules not fall under the definition of CPNI? Would extending the CPNI rules to cover TRS impede the provision of TRS?

146. We also seek comment on the comparative advantages and disadvantages of applying the CPNI rules to TRS providers, as opposed to expanding the existing TRS requirements governing permissible uses of database information to encompass any additional types of customer information (*e.g.*, Registered Location information) that may be generated as a result of the numbering and registration measures we adopt today. Under either approach, we seek comment on whether our rules should require express consumer consent before a TRS provider may disclose customer records of a TRS user to third parties or to any specific type of third-party entity. Commenters are also asked to identify any additional protections or safeguards they believe are needed to ensure the privacy and security of TRS customer data in light of the numbering and Registered Location measures that we adopt above. For example, should Internet-based TRS providers be required to remove all personally identifiable consumer information for Registered Internet-based TRS Users that select a different default provider? In addition, we ask commenters to describe any systems providers have in place currently to safeguard personally identifiable information of TRS users and indicate the degree to which those systems have succeeded in protecting consumers from unauthorized disclosure of personally identifiable customer data.

14. Cost Recovery Issues

147. As outlined above, we conclude that Internet-based TRS providers may seek compensation from the Fund for their actual reasonable costs of complying with the new requirements adopted in the foregoing *Order*. We have not included, however, those costs directly related to consumers' acquiring a number or to the costs associated with number portability. Because these costs generally are borne by voice telephone users,[368] we seek comment on whether Internet-based TRS users acquiring ten-digit numbers should also bear these costs.

148. We note that although section 225 creates a cost recovery regime for the costs of providing relay, it also mandates that the Commission's regulations shall "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."[369] Congress therefore contemplated that TRS consumers would pay *some* costs associated with making a "telephone call," just not those additional costs attributed to the use of a relay service to facilitate the call.

149. We therefore seek comment on whether, and to what extent, the costs of acquiring numbers, including porting fees, should be passed on to the Internet-based TRS users, and not paid for by the Fund. We note that because Internet-based TRS users will now have a default provider – *e.g.*, the provider from which they obtained their number or a provider to which they ported their number – that provider can pass the costs of acquiring the number, or of porting the number, to the consumer. We also seek comment on whether there are other specific costs that result from the requirements adopted in the *Order* that, mirroring voice telephone consumers, should be passed on to consumers, including, for

[367] 47 C.F.R. § 64.2005(c)(3). Such "adjunct-to-basic services" may include, among others, "speed dialing, computer-provided directory assistance, call monitoring, call tracing, call blocking, call return, repeat dialing, call tracking, call waiting, caller I.D., call forwarding, and certain centrex features." *Id.*

[368] 47 C.F.R. §§ 52.17, 52.32 (requiring carrier contributions to support numbering administration and number portability); 47 C.F.R. § 52.33 (setting forth method by which carriers may recover number portability costs).

[369] 47 U.S.C. § 225(d)(1)(D).

example, E911 charges.

V. PROCEDURAL MATTERS

150. *Comments and Reply Comments*. Pursuant to Sections 1.415 and 1.419 of the Commission's rules, 47 C.F.R. §§ 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: (1) the Commission's Electronic Comment Filing System (ECFS), (2) the Federal Government's eRulemaking Portal, or (3) by filing paper copies.[370] For additional information on this proceeding, please contact Thomas Chandler in the Consumer & Governmental Affairs Bureau, at (202) 418-1475.

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: http://www.fcc.gov/cgb/ecfs/ or the Federal eRulemaking Portal: http://www.regulations.gov. Filers should follow the instructions provided on the website for submitting comments.
  - For ECFS filers, if multiple docket or rulemaking numbers appear in the caption of this proceeding, filers must transmit one electronic copy of the comments for each docket or rulemaking number referenced in the caption. In completing the transmittal screen, filers should include their full name, U.S. Postal Service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions, filers should send an e-mail to ecfs@fcc.gov, and include the following words in the body of the message, "get form." A sample form and instructions will be sent in response.
- Paper Filers: Parties who choose to file by paper must file an original and four copies 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 (although we continue to experience delays in receiving U.S. Postal Service mail). All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.
  - The Commission's contractor will receive hand-delivered or messenger-delivered paper filings for the Commission's Secretary at 236 Massachusetts Avenue NE, Suite 110, Washington, D.C. 20002. The filing hours at this location are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes 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, D.C. 20554.

151. 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) or 202-418-0432 (TTY). This *Report and Order and Further Notice of Proposed Rulemaking* can also be downloaded in Word and Portable Document Formats (PDF) at http://www.fcc.gov/cgb.dro.

152. Comments and reply comments must include a short and concise summary of the

[370] *See Electronic Filing of Documents in Rulemaking Proceedings*, GC Docket No. 97-113, Report and Order, 13 FCC Rcd 11322, 11326, para. 8 (Apr. 6, 1998).

substantive discussion and questions raised in the *Further Notice*. We further direct all interested parties to include the name of the filing party and the date of the filing on each page of their comments and reply comments. We strongly encourage that parties track the organization set forth in this *Further Notice* in order to facilitate our internal review process. Comments and reply comments must otherwise comply with section 1.49 and all other applicable sections of the Commission's rules.[371]

153. *Ex Parte Rules*. This matter shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules.[372] Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentations must contain summaries of the substance of the presentations and not merely a listing of the subjects discussed. More than a one or two sentence description of the views and arguments presented is generally required.[373] Other requirements pertaining to oral and written presentations are set forth in section 1.1206(b) of the Commission's rules.

154. *Regulatory Flexibility Certifications*. As required by the Regulatory Flexibility Act of 1980 (RFA),[374] the Commission has prepared a Final Regulatory Flexibility Certification in which it concludes that, under the terms of the RFA, there is no significant economic impact on small entities of the policies and rules addressed in this document. The certification is set forth in Appendix C.

155. As required by the RFA,[375] the Commission also has prepared an Initial Regulatory Flexibility Certification of the possible significant economic impact on small entities of the policies and rules addressed in this document. The certification is set forth in Appendix D.

156. *Paperwork Reduction Act*. The *Report and Order* contains new or modified information collection requirements. The Commission, as part of its continuing effort to reduce paperwork burdens, invites the general public and the Office of Management and Budget (OMB) to comment on the information collection requirements contained in this document, as required by the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. Public and agency comments are due 60 days after the date of publication of this document in the Federal Register. Comments should address: (a) whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; (b) the accuracy of the Commission's burden estimates; (c) ways to enhance the quality, utility, and clarity of the information collected; and (d) ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology.

157. In addition, pursuant to the Small Business Paperwork Relief Act of 2002,[376] we seek specific comment on how we might "further reduce the information collection burden for small business concerns with fewer than 25 employees."

158. In this present document, we have assessed the effects of imposing a requirement that Internet-based TRS providers implement a plan for assigning ten-digit, NANP telephone numbers to Registered Internet-based TRS Users. We have taken steps to minimize the information collection burden for small business concerns, including those with fewer than 25 employees. For example, in requiring that providers obtain users' Registered Location, the *Order* allows providers to comply with this requirement directly or by utilizing the services of a third party. The Commission also requires Internet-based TRS providers to include an advisory on their websites and in any promotional materials addressing the new requirements adopted in this *Order*. The Commission believes that posting this information on provider websites and including it in any promotional materials that are directed to consumers should

[371] *See* 47 C.F.R. § 1.49.

[372] 47 C.F.R. §§ 1.200 *et seq*.

[373] *See* 47 C.F.R. § 1.1206(b)(2).

[374] *See* 5 U.S.C. § 604.

[375] *See* 5 U.S.C. § 603.

[376] Public Law 107-198, *see* 44 U.S.C. § 3506(c)(4).

entail minimal burden and will prove critical to ensuring that consumers receive timely and complete information concerning the transition to a ten-digit numbering system and that consumers are aware of the need to submit accurate Registered Location information for the proper routing of emergency calls. The Commission also finds that allowing providers until December 31, 2008, to implement the Registered Location requirement and other requirements adopted herein, under which providers must obtain or have access to consumer location information, as well as current routing information for their registered users, is a reasonable timeframe for both large and small providers. Finally, the Commission concludes that all Internet-based TRS providers, including small entities, will be eligible to receive compensation from the Interstate TRS Fund for their reasonable costs of complying with the numbering and registration requirements adopted in the *Order*. These measures should substantially alleviate any burdens on businesses with fewer than 25 employees.

159. *Congressional Review Act*. The Commission will send a copy of this *Report and Order and Further Notice of Proposed Rulemaking* in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act.[377]

VI. ORDERING CLAUSES

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

161. IT IS FURTHER ORDERED that, pursuant to sections 1, 2, 4(i), 4(j), 225, 251, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 154(i), 154(j), 225, 251, 303(r), Parts 52 and 64 of the Commission's rules, 47 C.F.R. Parts 52, 64, ARE AMENDED, as set forth in Appendix B.

162. IT IS FURTHER ORDERED that this *Report and Order and Further Notice of Proposed Rulemaking* shall become effective 30 days after publication in the Federal Register, and all requirements set forth herein must be implemented by December 31, 2008, except for the information collections, which require approval by OMB under the PRA and which shall become effective after the Commission publishes a notice in the Federal Register announcing such approval and the relevant effective date(s).

163. IT IS FURTHER ORDERED that the Commission's Consumer & Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this *Report and Order*, including the Final Regulatory Flexibility Certification, to the Chief Counsel for Advocacy of the Small Business Administration.

164. 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 Certification, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

[377] *See* 5 U.S.C. § 801(a)(1)(A).

APPENDIX A

List of Commenters

***Consumer & Governmental Affairs Bureau Seeks to Refresh Record on Assigning Internet Protocol (IP)-Based Telecommunications Relay Service (TRS) Users Ten-Digit Telephone Numbers Linked to North American Numbering Plan (NANP) and Related Issues*, CG Docket No. 03-123, Public Notice, 23 FCC Rcd 4727 (Mar. 19, 2008)**

Commenter/Date Filed	**Abbreviation**
AT&T (Apr. 8, 2008)	AT&T
Communication Service for the Deaf/CSDVRS (Apr. 8, 2008)	CSDVRS
Dash Carrier Services (Apr. 8, 2008)	Dash
GoAmerica/Hands On Video Relay Services (Apr. 8, 2008)	GoAmerica
Interstate TRS Advisory Council (Apr. 8, 2008)	TRS Advisory Council
Nebraska Public Service Commission (Apr. 8, 2008)	Nebraska PSC
NeuStar (Apr. 8, 2008)	NeuStar
Sorenson Communications, Inc. (Apr. 8, 2008)	Sorenson
Sprint Nextel Corporation (Apr. 8, 2008)	Sprint Nextel
Telecommunications for the Deaf and Hard of Hearing, Inc., Association of Late-Deafened Adults, Inc., National Association of the Deaf; Deaf and Hard of Hearing Consumer Advocacy Network; California Coalition of Agencies Serving the Deaf and Hard of Hearing (Apr. 8, 2008)	TDI Coalition

Reply Commenter/Date Filed	**Abbreviation**
Alexander Graham Bell Association for the Deaf and Hard of Hearing (Apr. 18, 2008)	AG Bell
American Association of People with Disabilities (Apr. 18, 2008)	AAPD
AT&T (Apr. 18, 2008)	AT&T
Communication Access Center for the Deaf and Hard of Hearing (Apr. 18, 2008)	CAC
Communication Service for the Deaf/CSDVRS (Apr. 18, 2008)	CSDVRS
Dash Carrier Services (Apr. 18, 2008)	Dash
GoAmerica/Hands On Video Relay Services (Apr. 18, 2008)	GoAmerica
National Emergency Number Association (Apr. 18, 2008)	NENA
NeuStar (Apr. 18, 2008)	NeuStar
Sonny Access Consulting (Apr. 18, 2008)	Sonny
Sorenson Communications, Inc. (Apr. 18, 2008)	Sorenson
Telecommunications for the Deaf and Hard of Hearing, Inc., Association of Late-Deafened Adults, Inc., National Association of the Deaf; Deaf and Hard of Hearing Consumer Advocacy Network; California Coalition of Agencies Serving the Deaf and Hard of Hearing (Apr. 18, 2008)	TDI Coalition

***Disabilities*, CG Docket No. 03-123, Declaratory Ruling and Further Notice of Proposed Rulemaking, 21 FCC Rcd 5442 (May 9, 2006)**

Commenter/Date Filed	**Abbreviation**
AT&T, Inc. (July 17, 2006)	AT&T
Communication Service for the Deaf (July 17, 2006)	CSD
Hands On Video Relay Services, Inc. (July 17, 2006)	Hands On
Snap Telecommunications, Inc. (July 17, 2006)	Snap
Sorenson Communications, Inc. (July 17, 2006)	Sorenson
Sprint Nextel Corporation (July 17, 2006)	Sprint Nextel
Telecommunications for the Deaf and Hard of Hearing, Inc.; National Association of the Deaf; Deaf and Hard of Hearing Consumer Advocacy Network; and California Coalition of Agencies Serving the Deaf and Hard of Hearing (July 17, 2006)	TDI Coalition
Verizon (July 17, 2006)	Verizon

Reply Commenter/Date Filed	**Abbreviation**
AT&T, Inc. (July 31, 2006)	AT&T
Hands On Video Relay Services, Inc. (July 31, 2006)	Hands On
Neustar, Inc. (July 31, 2006)	Neustar
Snap Telecommunications, Inc. (July 31, 2006)	Snap
Sorenson Communications, Inc. (July 31, 2006)	Sorenson
Telecommunications for the Deaf and Hard of Hearing, Inc.; National Association of the Deaf; Deaf and Hard of Hearing Consumer Advocacy Network; and California Coalition of Agencies Serving the Deaf and Hard of Hearing (July 31, 2006)	TDI Coalition
Verizon (July 31, 2006)	Verizon

***Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, Further Notice of Proposed Rulemaking, 21 FCC Rcd 5478 (May 8, 2006)**

Commenter/Date Filed	**Abbreviation**
Alliance for Telecommunications Industry Solutions (July 3, 2006)	ATIS
AT&T, Inc. (July 3, 2006)	AT&T
Country Boy Trailers (June 1, 2006)	Country Boy Trailers
Communication Service for the Deaf (June 28, 2006)	CSD
Hamilton Relay, Inc. (July 6, 2006)	Hamilton
Sorenson Communications, Inc. (July 3, 2006)	Sorenson
Sprint Nextel Corporation (July 3, 2006)	Sprint Nextel
Telecommunications for the Deaf and Hard of Hearing, Inc.; National Association of the Deaf; Deaf and Hard of Hearing Consumer Advocacy Network; and California Coalition of Agencies Serving the Deaf and Hard of Hearing (July 3, 2006)	TDI Coalition
Verizon (July 3, 2006)	Verizon

Reply Commenter/Date Filed	**Abbreviation**

Hamilton Relay, Inc. (July 14, 2006)	Hamilton
Sorenson Communications, Inc. (July 17, 2006)	Sorenson
Telecommunications for the Deaf and Hard of Hearing, Inc.; National Association of the Deaf; Deaf and Hard of Hearing Consumer Advocacy Network; and California Coalition of Agencies Serving the Deaf and Hard of Hearing (July 17, 2006)	TDI Coalition

***Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, Notice of Proposed Rulemaking, 20 FCC Rcd 19476 (Nov. 30, 2005)**

Commenter/Date Filed	**Abbreviation**
Communication Access Center (Feb. 22, 2006)	CAC
Communication Service for the Deaf (Feb. 22, 2006)	CSD
Hamilton Relay, Inc. (Feb. 22, 2006)	Hamilton
National Association of the Deaf (Feb. 22, 2006)	NAD
New Jersey Division of the Ratepayer Advocate (Feb. 22, 2006)	NJ Ratepayer
Rehabilitation Engineering Research Center on Telecommunications Access (Feb. 22, 2006)	RERC
Sorenson Communications, Inc. (Feb. 22, 2006)	Sorenson
Sprint Nextel Corporation (Feb. 22, 2006)	Sprint Nextel
Telecommunications for the Deaf, Inc. (Feb. 22, 2006)	TDI
Verizon (Feb. 22, 2006)	Verizon

Reply Commenter/Date Filed	**Abbreviation**
Hands On Video Relay Services, Inc. (Mar. 8, 2006)	Hands On
Intrado (Mar. 8, 2006)	Intrado
National Emergency Number Association (Mar. 8, 2006)	NENA
New Jersey Division of the Ratepayer Advocate (Mar. 8, 2006)	NJ Ratepayer
Sorenson Communications, Inc. (Mar. 8, 2006)	Sorenson
TDI and NorCal Center on Deafness (Mar. 8, 2006)	TDI & NorCal
Texas 9-1-1 Alliance and Texas Commission on State Emergency Communications (Mar. 8, 2006)	Texas911 Alliance
Verizon (Mar. 8, 2006)	Verizon

APPENDIX B

Final Rule Changes

Part 52 of Title 47 of the Code of Federal Regulations is amended as follows:

PART 52 – NUMBERING

1. The authority citation for part 52 continues to read as follows:

> Authority: Secs. 1, 2, 4, 5, 48 Stat. 1066, as amended; 47 U.S.C. 151, 152, 154 and 155 unless otherwise noted. Interpret or apply secs. 3, 4, 201–05, 207–09, 218, 225–27, 251–52, 271 and 332, 48 Stat. 1070, as amended, 1077; 47 U.S.C. 153, 154, 201–05, 207–09, 218, 225–27, 251–52, 271 and 332 unless otherwise noted.

2. Section 52.21 is amended by redesignating paragraphs (i) through (n) as paragraphs (j) through (o), redesignating paragraphs (o) through (s) as paragraphs (q) through (u), and adding new paragraphs (i), (p), and (v) to read as follows:

> * * * * *
>
> (i) The term *IP Relay provider* means an entity that provides IP Relay as defined by 47 C.F.R. § 64.601.
>
> * * * * *
>
> (p) The term *Registered Internet-based TRS User* has the meaning set forth in 47 C.F.R. § 64.601.
>
> * * * * *
>
> (v) The term *VRS provider* means an entity that provides VRS as defined by 47 C.F.R. § 64.601.
>
> * * * * *

3. Section 52.34 is amended to read as follows:

> **§ 52.34 Obligations regarding local number porting to and from interconnected VoIP or Internet-based TRS providers.**
>
> (a) An interconnected VoIP or VRS or IP Relay provider must facilitate an end-user customer's or a Registered Internet-based TRS User's valid number portability request, as it is defined in this subpart, either to or from a telecommunications carrier or an interconnected VoIP or VRS or IP Relay provider. "Facilitate" is defined as the interconnected VoIP or VRS or IP Relay provider's affirmative legal obligation to take all steps necessary to initiate or allow a port-in or port-out itself or through the telecommunications carriers, if any, that it relies on to obtain numbering resources, subject to a valid port request, without unreasonable delay or unreasonable procedures that have the effect of delaying or denying porting of the NANP-based telephone number.
>
> (b) An interconnected VoIP or VRS or IP Relay provider may not enter into any agreement that would prohibit an end-user customer or a Registered Internet-based TRS User from porting between interconnected VoIP or VRS or IP Relay providers, or to or from a telecommunications carrier.

Part 64 of the Code of Federal Regulations is amended as follows:

PART 64 – MISCELLANEOUS RULES RELATING TO COMMON CARRIERS

1. The authority citation for part 64 continues to read as follows:

Authority: 47 U.S.C. 154, 254(k); secs. 403 (b)(2)(B), (C), Public Law 104-104, 110 Stat. 56. Interpret or apply 47 U.S.C. 201, 218, 225, 226, 228, and 254(k) unless otherwise noted.

2. Section 64.601 is amended by redesignating paragraphs (a)(3) through (a)(9) as paragraphs (a)(4) through (a)(10), redesignating paragraph (a)(10) as paragraph (a)(14), redesignating paragraph (a)(11) as paragraph (a)(16), deleting paragraph (a)(12), redesignating paragraphs (a)(13) through (a)(17) as paragraphs (a)(19) through (a)(23), redesignating paragraphs (a)(18) and (a)(19) as (a)(26) and (a)(27), and by amending subsection (a) and adding new paragraphs (a)(3), (a)(11) through (a)(13), (a)(15), (a)(17), (a)(18), (a)(24), and (a)(25) to read as follows:

(a) For purposes of this subpart, the terms *Public Safety Answering Point (PSAP)*, *statewide default answering point*, and *appropriate local emergency authority* are defined in 47 C.F.R. § 64.3000; the terms *pseudo-ANI* and *Wireline E911 Network* are defined in 47 C.F.R. § 9.3; the term *affiliate* is defined in 47 C.F.R. § 52.12(a)(1)(i), and the terms *majority* and *debt* are defined in 47 C.F.R. § 52.12(a)(1)(ii). * * *

* * * * *

(3) *ANI*. For 911 systems, the Automatic Number Identification (ANI) identifies the calling party and may be used as the callback number.

* * * * *

(11) *Internet-based TRS*. A telecommunications relay service (TRS) 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.

(12) *Internet Protocol Captioned Telephone Service (IP CTS)*. A telecommunications relay service that permits an individual who can speak but who has difficulty hearing over the telephone to use a telephone and an Internet Protocol-enabled device via the Internet to simultaneously listen to the other party and read captions of what the other party is saying. With IP CTS, the connection carrying the captions between the relay service provider and the relay service user is via the Internet, rather than the public switched telephone network.

(13) *Internet Protocol Relay Service (IP Relay)*. A telecommunications relay service that permits an individual with a hearing or a speech disability to communicate in text using an Internet Protocol-enabled device via the Internet, rather than using a text telephone (TTY) and the public switched telephone network.

* * * * *

(15) *Numbering Partner*. Any entity with which an Internet-based TRS provider has entered into a

commercial arrangement to obtain North American Numbering Plan telephone numbers.

* * * * *

(17) *Registered Location*. The most recent information obtained by a VRS or IP Relay provider that identifies the physical location of an end user.

(18) *Registered Internet-based TRS User*. An individual that has registered with a VRS or IP Relay provider as described in section 64.611.

* * * * *

(24) *TRS Numbering Administrator*. The neutral administrator of the TRS Numbering Directory selected based on a competitive bidding process.

(25) *TRS Numbering Directory*. The database administered by the TRS Numbering Administrator, the purpose of which is to map each Registered Internet-based TRS User's NANP telephone number to his or her end device.

* * * * *

3. Section 64.605 is amended to read as follows:

§ 64.605 Emergency Calling Requirements

(a) *Additional Emergency Calling Requirements Applicable to Internet-based TRS Providers*.

(1) As of December 31, 2008, the requirements of paragraphs (a)(2)(i) and (a)(2)(iv) of this section shall not apply to providers of VRS and IP Relay.

(2) Each provider of Internet-based TRS shall:

(i) Accept and handle emergency calls and access, either directly or via a third party, a commercially available database that will allow the provider to determine an appropriate PSAP, designated statewide default answering point, or appropriate local emergency authority that corresponds to the caller's location, and to relay the call to that entity;

(ii) Implement 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);

(iii) Request, at the beginning of each emergency call, the caller's name and location information, unless the Internet-based TRS provider already has, or has access to, a Registered Location for the caller;

(iv) Deliver to the PSAP, designated statewide default answering point, or appropriate local emergency authority, at the outset of the outbound leg of an emergency call, at a minimum, the name of the relay user and location of the emergency, as well as the name of the relay provider, the CA's callback number, and the CA's identification number, thereby enabling the PSAP,

designated statewide default answering point, or appropriate local emergency authority to re-establish contact with the CA in the event the call is disconnected;

(v) In the event one or both legs of an emergency call are disconnected (*i.e.*, either the call between the TRS user and the CA, or the outbound voice telephone call between the CA and the PSAP, designated statewide default answering point, or appropriate local emergency authority), immediately re-establish contact with the TRS user and/or the appropriate PSAP, designated statewide default answering point, or appropriate local emergency authority and resume handling the call; and

(vi) Ensure that information obtained as a result of this section is limited to that needed to facilitate 911 services, is made available only to emergency call handlers and emergency response or law enforcement personnel, and is used for the sole purpose of ascertaining a user's location in an emergency situation or for other emergency or law enforcement purposes.

(b) *E911 Service for VRS and IP Relay*

(1) *Scope*. The following requirements are only applicable to providers of VRS or IP Relay. Further, the following requirements apply only to 911 calls placed by users whose Registered Location is in a geographic area served by a Wireline E911 Network.

(2) *E911 Service.* As of December 31, 2008:

(i) VRS or IP Relay providers must, as a condition of providing service to a user, provide that user with E911 service as described in this section;

(ii) VRS or IP Relay providers must transmit all 911 calls, as well as ANI, the caller's Registered Location, the name of the VRS or IP Relay provider, and the CA's identification number for each call, to the PSAP, designated statewide default answering point, or appropriate local emergency authority that serves the caller's Registered Location and that has been designated for telecommunications carriers pursuant to §64.3001 of this chapter, provided that "all 911 calls" is defined as "any communication initiated by a VRS or IP Relay user dialing 911";

(iii) All 911 calls must be routed through the use of ANI and, if necessary, pseudo-ANI, via the dedicated Wireline E911 Network; and

(iv) The Registered Location, the name of the VRS or IP Relay provider, and the CA's identification number must be available to the appropriate PSAP, designated statewide default answering point, or appropriate local emergency authority from or through the appropriate automatic location information (ALI) database.

(3) *Service Level Obligation.* Notwithstanding the provisions in paragraph (b)(2) of this section, if a PSAP, designated statewide default answering point, or appropriate local emergency authority is not capable of receiving and processing either ANI or location information, a VRS or IP Relay provider need not provide such ANI or location information; however, nothing in this paragraph affects the obligation under paragraph (c) of this section of a VRS or IP Relay provider to transmit via the Wireline E911 Network all 911 calls to the PSAP, designated statewide default answering point, or appropriate local emergency authority that serves the caller's Registered Location and that has been designated for telecommunications carriers pursuant to §64.3001 of this chapter.

(4) *Registered Location Requirement.* As of December 31, 2008, VRS and IP Relay providers must:

(i) Obtain from each Registered Internet-based TRS User, prior to the initiation of service, the physical location at which the service will first be utilized; and

(ii) If the VRS or IP Relay is capable of being used from more than one location, provide their Registered Internet-based TRS Users one or more methods of updating their Registered Location, including at least one option that requires use only of the CPE necessary to access the VRS or IP Relay. Any method utilized must allow a Registered Internet-based TRS User to update the Registered Location at will and in a timely manner.

4. Section 64.611 is added to read as follows:

§ 64.611 Internet-Based TRS Registration

(a) *Default Provider Registration*. Every provider of VRS or IP Relay must, no later than December 31, 2008, provide users with the capability to register with that VRS or IP Relay provider as a "default provider." Upon a user's registration, the VRS or IP Relay provider shall:

(1) Either:

(i) Facilitate the user's valid number portability request as set forth in 47 C.F.R. § 52.34; or

(ii) If the user does not wish to port a number, assign that user a geographically appropriate North American Numbering Plan telephone number; and

(2) 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.

(b) *Mandatory Registration of New Users*. As of December 31, 2008, VRS and IP Relay providers must, prior to the initiation of service for an individual that has not previously utilized VRS or IP Relay, register that new user as described in paragraph (a) of this section.

(c) *Obligations of Default Providers and Former Default Providers*.

(1) Default providers must:

(i) Obtain current routing information, including IP addresses or domain names and user names, from their Registered Internet-based TRS Users;

(ii) Provision such information to the TRS Numbering Directory; and

(iii) Maintain such information in their internal databases and in the TRS Numbering Directory.

(2) Internet-based TRS providers (and, to the extent necessary, their Numbering Partners) must:

(i) Take such steps as are necessary to cease acquiring routing information from any VRS or IP Relay user that ports his or her number to another VRS or IP Relay provider or otherwise selects a new default provider; and

(ii) Communicate among themselves as necessary to ensure that:

(A) Only the default provider provisions routing information to the central database; and

(B) VRS and IP Relay providers other than the default provider are aware that they must query the TRS Numbering Directory in order to obtain accurate routing information for a particular user of VRS or IP Relay.

(d) *Proxy Numbers*. After December 31, 2008, a VRS or IP Relay provider:

(1) May not assign or issue a proxy or alias for a NANP telephone number to any user; and

(2) Must cease to use any proxy or alias for a NANP telephone number assigned or issued to any Registered Internet-based TRS User.

(e) *Customer Premises Equipment (CPE)*.

(1) Every VRS or IP Relay provider must ensure that all CPE they have issued, leased, or otherwise provided to VRS or IP Relay users delivers 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.

(2) All CPE issued, leased, or otherwise provided to VRS or IP Relay users by Internet-based TRS providers must be capable of facilitating the requirements of this section.

(f) *User Notification*. Every VRS or IP Relay provider must include an advisory on its website and in any promotional materials addressing numbering or E911 services for VRS or IP Relay.

(1) At a minimum, the advisory must address the following issues: (i) the process by which VRS or IP Relay users may obtain ten-digit telephone numbers, including a brief summary of the numbering assignment and administration processes; (ii) the portability of ten-digit telephone numbers assigned to VRS or IP Relay users; (iii) the process by which persons using VRS or IP Relay may submit, update, and confirm receipt by the provider of their Registered Location information; and (iv) an explanation emphasizing the importance of maintaining accurate, up-to-date Registered Location information with the user's default provider in the event that the individual places an emergency call via VRS or IP Relay.

(2) VRS and IP Relay providers must obtain and keep a record of affirmative acknowledgement by every Registered Internet-based TRS User of having received and understood the advisory described in this subsection.

5. Section 64.613 is added to read as follows:

§ 64.613 Numbering Directory for Registered Internet-based TRS Users

(a) TRS Numbering Directory.

(1) The TRS Numbering Directory shall contain records mapping the NANP telephone number of each Registered Internet-based TRS User to a unique Uniform Resource Identifier (URI).

(2) For each record associated with a VRS user, the URI shall contain the user's Internet Protocol (IP)

address. For each record associated with an IP Relay user, the URI shall contain the user's user name and domain name that can be subsequently resolved to reach the user.

(3) Only the TRS Numbering Administrator and Internet-based TRS providers may access the TRS Numbering Directory.

(b) Administration.

(1) *Neutrality*.

(A) The TRS Numbering Administrator shall be a non-governmental entity that is impartial and not an affiliate of any Internet-based TRS provider.

(B) Neither the TRS Numbering Administrator nor any affiliate may issue a majority of its debt to, nor derive a majority of its revenues from, any Internet-based TRS provider.

(C) Nor may the TRS Numbering Administrator nor any affiliate be unduly influenced, as determined by the North American Numbering Council, by parties with a vested interest in the outcome of TRS-related numbering administration and activities.

(D) Any subcontractor that performs any function of the TRS Numbering Administrator must also meet these neutrality criteria.

(2) *Terms of Administration*. The TRS Numbering Administrator shall administer the TRS Numbering Directory pursuant to the terms of its contract.

(3) *Compensation*. The TRS Fund, as defined by 47 C.F.R. § 64.604(a)(5)(iii), may compensate the TRS Numbering Administrator for the reasonable costs of administration pursuant to the terms of its contract.

APPENDIX C

Final Regulatory Flexibility Certification

1. The Regulatory Flexibility Act of 1980, as amended (RFA),[378] requires that a regulatory flexibility analysis be prepared for rulemaking proceedings, unless the agency certifies that "the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities."[379] The RFA generally defines "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."[380] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.[381] A "small business concern" is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).[382]

165. In this *Order*, the Commission adopts a system for assigning ten-digit telephone numbers linked to the NANP to persons using Internet-based TRS. This *Order* will further the functional equivalency of TRS mandated in Title IV of the Americans with Disabilities Act. The Commission finds that utilization of NANP numbers will achieve the goal of making Internet-based TRS functionally equivalent to traditional circuit switched telephony, and will provide Internet-based TRS users a reliable and consistent means by which they may receive calls from voice telephone users in the same way that voice telephone users are called. Under this *Order*, each Internet-based TRS provider must provide Internet-based TRS users with the capability to register with that provider as a "default" provider. Upon a user's registration, each provider must either facilitate the user's valid number portability request or, if the user does not wish to port a number, assign that user a geographically appropriate NANP telephone number. Each provider also must route and deliver all of its Registered Internet-based TRS Users' inbound and outbound calls unless the user chooses to place a call with, or receives a call from, an alternate provider. Further, this *Order* requires Internet-based TRS providers to obtain from each of their Registered Internet-based TRS users, prior to the initiation of service, the physical location at which the service will first be utilized. Moreover, providers of Internet-based TRS that can be utilized from more than one physical location must provide registered users one or more methods of updating their Registered Location. As noted in the *Order*, the numbering system adopted enables individuals with hearing and speech disabilities using Internet-based TRS access to emergency services. Specifically, the *Order* is intended to ensure that emergency calls placed by Internet-based TRS users will be routed directly and automatically to the appropriate emergency services authorities by Internet-based TRS providers. The Commission also requires each Internet-based TRS provider to include an advisory on its website and in any promotional materials addressing the new requirements adopted in the *Order*. Providers must obtain and keep a record of affirmative acknowledgement by every user assigned a number of having received and understood this advisory. The Commission also states its belief that instituting a numbering system and a Registered Location requirement, as provided in the *Order*, will

[378] *See* 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. §§ 601–612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996, (SBREFA) Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

[379] 5 U.S.C. § 605(b).

[380] 5 U.S.C. § 601(6).

[381] 5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

[382] Small Business Act, 15 U.S.C. § 632.

reduce the misuse of IP Relay by persons seeking to use this service for fraudulent purposes. Finally, the *Order* concludes that Internet-based TRS providers will be compensated from the Interstate TRS Fund for their reasonable actual costs of complying with the new rules adopted in this item.

166. To the extent that all Internet-based TRS providers, including small entities, will be eligible to receive compensation from the Interstate TRS Fund for their reasonable costs of complying with these numbering and Registered Location requirements, the Commission finds that these requirements will not have a significant economic impact on a substantial number of small entities. Further, the Commission believes that allowing providers until December 31, 2008, to implement the ten-digit numbering plan adopted in the *Order* is a reasonable timeframe for both large and small providers. The Commission also authorizes the Managing Director to include in the third-party administrator contract the requirement to refer all implementation disputes that it is unable to resolve in a reasonable time to the Chief of the Wireline Competition Bureau for resolution, which will ease burdens on providers, including small entities. For all of these reasons, the Commission concludes that these measures will not have a significant economic impact on a substantial number of small entities, in particular because each small business will receive financial compensation for reasonable costs incurred rather than absorb an uncompensated financial loss or hardship.

167. With regard to whether a *substantial number* of small entities may be affected by the requirements adopted in this *Order*, the Commission notes that, of the 11 providers affected by the *Order*, only three meet the definition of a small entity. The SBA has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such firms having 1,500 or fewer employees.[383] Currently, eleven providers receive compensation from the Interstate TRS Fund for providing VRS, IP Relay and IP CTS: AT&T Corp.; CSDVRS; CAC; GoAmerica; Hamilton Relay, Inc.; Hands On; Healinc; Nordia Inc.; Snap Telecommunications, Inc; Sorenson; and Sprint. Because only three of the providers affected by this *Order* are deemed to be small entities under the SBA's small business size standard, the Commission concludes that the number of small entities affected by our decision in this *Order* is not substantial. Moreover, given that all affected providers, including the three that are deemed to be small entities under the SBA's standard, will be entitled to receive prompt reimbursement for their reasonable costs of compliance, the Commission concludes that the *Order* will not have a significant economic impact on these small entities.

168. Therefore, for all of the reasons stated above, the Commission certifies that the requirements of this *Order* will not have a significant economic impact on a substantial number of small entities.

169. The Commission will send a copy of the *Order*, including this Final Regulatory Flexibility Certification, in a report to Congress pursuant to the Congressional Review Act.[384] In addition, the *Order*, including the Final Regulatory Flexibility Certification, will be sent by the Commission's Consumer & Governmental Affairs Bureau, Reference Information Center to the Chief Counsel for Advocacy of the SBA and will be published in the Federal Register.[385]

[383] 13 C.F.R. § 121.201, NAICS code 517110. According to Census Bureau data for 1997, there were 2,225 firms in this category which operated for the entire year. U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, "Establishment and Firm Size (Including Legal Form of Organization)," Table 5, NAICS code 513310 (issued Oct. 2000). Of this total, 2,201 firms had employment of 999 or fewer employees, and an additional 24 firms had employment of 1,000 employees or more. Thus, under this size standard, the majority of firms can be considered small. (The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is "Firms with 1,000 employees or more.")

[384] *See* 5 U.S.C. § 801(a)(1)(A).

[385] *See* 5 U.S.C. § 604(b).

APPENDIX D

Initial Regulatory Flexibility Certification

2. The Regulatory Flexibility Act of 1980, as amended (RFA),[386] requires that an initial regulatory flexibility analysis be prepared for notice-and-comment rulemaking proceedings, unless the agency certifies that "the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities."[387] The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."[388] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.[389] A "small business concern" is one that: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).[390]

170. In the *Further Notice of Proposed Rulemaking*, the Commission seeks comment on additional issues relating to the assignment and administration of ten-digit telephone numbers for VRS and IP Relay users. For example, the Commission proposes a modification of the call completion requirement under the Commission's TRS rules so that if a CA is handling a non-emergency relay call and identifies an incoming 911 call, the CA may terminate the existing call to immediately answer the 911 call.[391] The Commission also seeks comment on ways in which Registered Location information might be made available to alternative relay providers for the purpose of routing emergency calls in the event that an Internet-based TRS user places an emergency call through an Internet-based TRS provider other than the user's default provider. The Commission seeks comment on how long a registration period Internet-based TRS providers should have to register their users. The Commission also seeks comments on the eligibility of Internet-based TRS users for multiple telephone numbers and on whether Internet-based TRS users should pay a fee for toll free numbers. Further, the Commission seeks comment on the steps it should take, if any, to facilitate standards-based signaling between service providers. The Commission seeks comment on whether functional equivalency requires that a single telephone number be assigned to multiple end-user devices and on whether multi-line telephone systems pose particular problems for the numbering and 911 requirements imposed here. The Commission seeks comment on who should be eligible to obtain a telephone number from Internet-based TRS providers. The Commission also contemplates additional security measures designed to ensure the integrity of the TRS system and the equipment and networks of Internet-based TRS users, and proposes to extend the numbering system to IP CTS. The Commission proposes the application of the Commission's anti-slamming rules to protect relay consumers against unauthorized default provider changes and the Commission's privacy rules to protect relay consumers against unauthorized disclosure of private information. Finally, the Commission seeks comment on whether the costs of acquiring ten-digit telephone numbers, and porting those numbers, should be passed on to Internet-based TRS users.

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[386] *See* 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. § 601–612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

[387] 5 U.S.C. § 605(b).

[388] 5 U.S.C. § 601(6).

[389] 5 U.S.C. § 601(3) (incorporating by reference the definition of "small-business concern" in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

[390] 15 U.S.C. § 632.

[391] *See* 47 C.F.R. § 64.604(a)(30)(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.")

171. The Commission concludes that these proposed changes may be necessary to ensure that users of Internet-based TRS receive functionally equivalent telephone service, as mandated by Title IV of the Americans with Disabilities Act. Although the proposed changes may result in additional reporting and recordkeeping requirements on the part of the affected providers, including small entities, the providers will be promptly reimbursed from the Interstate TRS Fund for the costs of complying with the proposed rules, if adopted. Entities, especially small businesses, are encouraged to quantify the costs and benefits of any reporting requirement that may be established in this proceeding. The modifications the Commission proposes consist of policies aimed at achieving a functionally equivalent telephone service for Internet-based TRS users and are not expected to have a substantial economic impact upon providers, including small businesses, because each small business will receive financial compensation for reasonable costs incurred rather than absorb an uncompensated financial loss or hardship.

172. With regard to whether a *substantial number* of small entities may be affected by the requirements proposed in this *Further Notice*, the Commission notes that, of the fourteen providers affected by the *Further Notice*, only four meet the definition of a small entity. The SBA has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such firms having 1,500 or fewer employees.[392] Currently, fourteen providers receive compensation from the Interstate TRS Fund for providing any form of TRS: Ameritech, AT&T Corp.; CSDVRS; CAC; GoAmerica; Hamilton Relay, Inc.; Hands On; Healinc; Kansas Relay Service, Inc.; Nordia Inc.; Snap Telecommunications, Inc; Sorenson; Sprint; and State of Michigan. Because only four of the providers that would be affected by this *Further Notice*, if adopted, are deemed to be small entities under the SBA's small business size standard, the Commission concludes that the number of small entities potentially affected by our proposed rules is not substantial. Moreover, given that all providers potentially affected by the proposed rules, including the four that are deemed to be small entities under the SBA's standard, would be entitled to receive prompt reimbursement for their reasonable costs of compliance, the Commission concludes that the *Further Notice*, if adopted, will not have a significant economic impact on these small entities.

173. Therefore, we certify that the proposals in this *Further Notice*, if adopted, will not have a significant economic impact on a substantial number of small entities.

174. The Commission will send a copy of the *Further Notice*, including a copy of this Initial Regulatory Flexibility Certification, to the Chief Counsel for Advocacy of the SBA.[393] This initial certification will also be published in the Federal Register.[394]

STATEMENT OF
CHAIRMAN KEVIN J. MARTIN

Re: 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 and WC Docket No. 05-196, Report and Order and Further Notice of Proposed Rulemaking.

Re: Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and

[392] 13 C.F.R. § 121.201, NAICS code 517110. According to Census Bureau data for 1997, there were 2,225 firms in this category which operated for the entire year. U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, "Establishment and Firm Size (Including Legal Form of Organization)," Table 5, NAICS code 513310 (issued Oct. 2000). Of this total, 2,201 firms had employment of 999 or fewer employees, and an additional 24 firms had employment of 1,000 employees or more. Thus, under this size standard, the majority of firms can be considered small. (The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is "Firms with 1,000 employees or more.")

[393] 5 U.S.C. § 605(b).

[394] 5 U.S.C. § 605(b).

Speech Disabilities; Speech-to-Speech and Internet Protocol (IP) Speech-to-Speech Telecommunications Relay Services, CG Docket Nos. 03-123 and 08-15, Notice of Proposed Rulemaking.

Today we take additional steps to help improve the quality of life for individuals with disabilities. We adopt a ten-digit numbering system for Internet-based Telecommunications Relay Services (TRS). We also seek comment on ways to improve Speech-to-Speech service (STS) and whether IP STS should be compensated from the Interstate TRS Fund. Through these actions, we make progress in fulfilling our statutory goal of ensuring that every person has equal access to this nation's communications services.

We are well aware that there are many Americans with hearing or speech disabilities that depend on TRS services for their daily communication needs. The Commission remains committed to improving the quality of life for individuals with disabilities by ensuring that they have the same access to communication technologies as people without such disabilities.

In March, the Commission committed to adopt an order providing a ten-digit numbering system for Internet-based TRS by the end of June and to require that the ten-digit numbering system be implemented no later than December 31, 2008. I am pleased that we fulfill these commitments today. Ten-digit numbering will enable Internet-based TRS users to make and receive calls like anyone else, eradicating another barrier that stands in the way of functional equivalency. Functional equivalency means individuals with disabilities having access to the same services as everyone else. This equal access is vital to accessing jobs, education, public safety, and simple communications with family, friends, and neighbors.

I also support our inquiry into ways to improve STS and our tentative conclusion that IP STS is a form of TRS eligible for compensation from the Interstate TRS Fund. IP STS has the potential to allow a broader range of individuals to communicate. By not being constrained to a specific piece of equipment that resides in a particular location, users of this service would have tremendous flexibility in how and where they use this service. Moreover, individuals with disabilities would have access to new technologies and, specifically, be able to realize the benefits of broadband services.

I want to assure those of you with hearing or speech disabilities that we will not stop actively working to fulfill your need for functional equivalence. We could not have taken today's actions without your valuable input. We thank you for your participation in our proceedings and look forward to working with you and the service providers to implement the ten-digit numbering system and to improve speech to speech service. It is by working together that we can best ensure that the tremendous advances in communications are enjoyed by *all* Americans.

STATEMENT OF
COMMISSIONER MICHAEL J. COPPS

Re: 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 and WC Docket No. 05-196, Report and Order and Further Notice of Proposed Rulemaking.

Today the Commission takes another essential step towards making sure that come December 31, 2008 the deaf and hard of hearing community will be able to obtain 10-digit phone numbers – something that most of us with a cell phone or home phone too often take for granted. In doing so, users of Internet-based Telecommunications Relay Services such as Video Relay Service and IP-Relay will be able to give their friends, family, doctors, and employers a phone number to reach them just like voice telephone users. The Order requires that these phone numbers be portable and the consumer devices be interoperable. The Order also requires that emergency calls placed by these users be automatically and correctly connected with local emergency services. I am pleased to support this Order and the Commission's decision to require that all of this be completed no later than December 31, 2008. Deaf and hard of hearing consumers have waited too long for this service already and it is certainly consistent with the Americans with Disabilities Act's mandate of "functional equivalency."

Getting to this juncture has not been an easy road and there is still much work to do. For this reason, I also support the Commission's Further Notice of Proposed Rulemaking seeking comment on certain implementation issues involving emergency calling, Customer Proprietary Network Information, and anti-slamming rules. Comment is also sought on other important issues such as the appropriate timeline for existing users to sign-up for a number, the assignment of multiple phone numbers to a user or a single phone number to multiple services, how costs for this new system should be covered, and ways to prevent fraud. These and other issues teed up in the Further Notice are all critical questions, many of them novel, and I would urge all stakeholders to provide the Commission with the benefit of their insights, knowledge and experience.

The Order also emphasizes the critical need for consumer outreach. The availability of phone numbers is a very big step in the advancement of functionally equivalent telephone service for the deaf and hard hearing community. With that will come many questions, probably some concerns, and inevitably I fear some confusion as we move to the system adopted today. For these reasons, it's incumbent upon the FCC, providers, and consumer advocacy organizations to engage in a coordinated campaign to inform the disability community.

As with most systemic and promising changes, it is essential that all stakeholders, particularly the disability community, provide the Commission with its ongoing input and ideas. The FCC must do a good job of monitoring the process and be ready to respond to any unintended consequences. In addition, the Commission must remain diligent in its efforts to oversee the integrity of these programs. The move to a numbering system should afford the Commission, providers, and businesses additional tools in their efforts to combat fraud, particularly when it comes to IP-Relay.

I want to thank Chairman Martin and all my colleagues for their support for this Order and their efforts in making it come to fruition. I also appreciate the hard work and guidance provided by the deaf and hard of hearing community on these important issues. Finally, I want to pay tribute to Cathy Seidel and Nicole McGinnis of the Consumer and Government Affairs Bureau, Tom Chandler of the Disabilities Rights Office, Dana Shaffer and Nick Alexander of the Wireline Competition Bureau, and their teams who in less than three months organized a stakeholder workshop, analyzed a refreshed record, and labored long hours on this technical, complicated and important Order. While we're not home yet, their ongoing efforts are worthy of recognition.

STATEMENT OF
COMMISSIONER JONATHAN S. ADELSTEIN

Re: 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 and WC Docket No. 05-196, Report and Order and Further Notice of Proposed Rulemaking.

Earlier this year, the Commission made a commitment to establish a permanent and automated emergency access solution and a ten-digit dialing plan for Internet-based relay services. So, I am pleased that we honor that commitment today by adopting this Order, which sets us on a course to complete those tasks by December 31, 2008 and marks significant progress toward ensuring "functionally equivalent" service for consumers with hearing and speech disabilities.

With this Order, we adopt a permanent emergency access solution and a system of traditional ten-digit numbers for Internet-based relay services. A permanent emergency access solution will enable Internet-based relay service customers to automatically reach the appropriate emergency services, just as hearing users of interconnected VoIP services do. It is telling that users of Internet relay services described emergency access as "unequivocally the most important aspect of VRS and IP Relay functional equivalency."[395] Similarly, the decision to adopt a true ten-digit dialing system will greatly improve the value of Internet-based relay services for consumers. We establish a comprehensive system, for the first time, that will allow VRS and IP Relay Service users to call and be called by other relay service customers and by hearing customers. It will also permit relay service users to port their numbers when they switch providers. I am also pleased that the accompanying Further Notice seeks comment on consumer protection issues, like slamming and customer privacy. Establishing appropriate consumer safeguards is another important element of ensuring "functional equivalence."

The progress we make today would not be possible were it not for the tireless efforts of the many consumer representatives who have championed these issues, participated in our stakeholder workshops, and provided critical input to my office and Commission staff. We have also benefited from the numerous providers who have shared their technical expertise and experience as we develop solutions to these long recognized problems, and we will need their continued cooperation as we implement the decisions reached here. I am also grateful for the attention and input of leading members of Congress who on a bipartisan basis have recognized the importance of these issues and asked us to move quickly.[396]

Finally, the talented staff from our Consumer and Governmental Affairs Bureau and Wireline Competition Bureau deserve particular praise for bringing their expertise and dedication to this task. They have done yeoman's work sorting through complicated numbering proposals, comparing advantages and disadvantages, and crafting the best elements of each into the current approach. We will need to rely on their continued efforts in order to meet the December 31st deadline for implementation, so I thank them for their contributions to this item and look forward to continuing the effort.

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[395] *See* Partial Opposition of Telecommunications For The Deaf And Hard Of Hearing, Inc.; Association Of Late-Deafened Adults, Inc.; National Association Of The Deaf; Deaf And Hard Of Hearing Consumer Advocacy Network; And California Coalition Of Agencies Serving The Deaf And Hard Of Hearing (Dec. 20, 2007).

[396] *See* Letter from Chairman John D. Dingell, Ranking Member Joe Barton, Chairman Edward J. Markey, Ranking Member Fred Upton (Nov. 26, 2007).

STATEMENT OF
COMMISSIONER DEBORAH TAYLOR TATE

Re: 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 and WC Docket No. 05-196, Report and Order and Further Notice of Proposed Rulemaking.

On March 19, 2008, in our *VRS 911 Order*, we adopted interim emergency call handling requirements for Internet-based TRS providers. Pursuant to that Order on April 29, 2008, the Commission held a Stakeholder Workshop in which consumers and a cross-section of industry representatives discussed numbering issues, including three comprehensive numbering proposals reflected in the record. Today we fulfill our commitment in that Order and adopt a ten-digit telephone numbering system for users of Internet-based TRS, specifically Video Relay Service and IP Relay. Significantly, the ten-digit numbering system will further the functional equivalency mandate by permitting voice telephone users to call VRS and IP Relay users by dialing the relay user's ten-digit telephone number, the same way that voice telephone users call other voice telephone users. In addition, the item adopts registered location requirements similar to those applicable to interconnected VoIP providers to ensure that consumers can call emergency services via VRS and IP Relay and have their call automatically route to appropriate emergency services authorities.

As the Commission continues to consider the needs of the deaf and hard-of-hearing community, we must ensure that all Americans benefit from advances in telecommunications services and equipment. Today we acknowledge that significant numbers of persons with hearing disabilities are seeking innovative services. I look forward to implementation of this plan by the end of 2008.