

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

In the Matters of
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, Telecommunica-
tions Equipment and Customer Premises Equip-
ment by Persons with Disabilities
Telecommunications 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
WT Docket No. 96-198
CG Docket No. 03-123
CC Docket No. 92-105

REPORT AND ORDER

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

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## I. INTRODUCTION

1. In this Report and Order (*Order*), we extend the disability access requirements that currently apply to telecommunications service providers and equipment manufacturers under section 255 of the Communications Act of 1934, as amended (the Act),<sup>1</sup> to providers of “interconnected voice over Internet Protocol (VoIP) services,” as defined by the Commission,<sup>2</sup> and to manufacturers of specially designed equipment used to provide those services. We adopt this measure under our Title I ancillary jurisdiction in order to give full effect to the accessibility policies embodied in section 255, and to further our statutory mandate to make available a nationwide communications system that promotes the safety and welfare of all Americans. In addition, we extend the Telecommunications Relay Services (TRS)<sup>3</sup> requirements contained in our regulations, 47 C.F.R. §§ 64.601 *et seq.*, to providers of interconnected VoIP services, pursuant to section 225(b)(1) of the Act<sup>4</sup> and our Title I ancillary jurisdiction. Among the TRS requirements that we extend to interconnected VoIP providers, we require such providers to contribute to the Interstate TRS Fund (Fund)<sup>5</sup> under the Commission’s existing contribution rules,<sup>6</sup> and to offer 711 abbreviated dialing for access to relay services.<sup>7</sup> Together, these measures will ensure that, as more consumers migrate from traditional phone service to interconnected VoIP services, the disability access provisions mandated by Congress under sections 255 and 225 will apply to, and benefit users of, interconnected VoIP services and equipment.

## II. BACKGROUND

### A. Sections 255 and 251(a)(2) of the Communications Act of 1934 (Disability Access)

2. In adopting section 255, Congress sought to ensure that *all* Americans, including the approximately 54 million Americans with disabilities, could benefit from advances in telecommunications services and equipment. Section 255 requires manufacturers of “telecommunications equipment or customer premises equipment”<sup>8</sup> to ensure that such equipment is accessible to and usable by individuals

<sup>1</sup> See 47 U.S.C. § 255. Section 255 was added to the Communications Act by the Telecommunications Act of 1996. Telecommunications Act of 1996, Pub. L. 104-104, 110 Stat. 56 (1996). See also 47 C.F.R. §§ 6.1-6.23 (Commission rules implementing section 255).

<sup>2</sup> See 47 C.F.R. §§ 9.3, 54.5 (defining “interconnected VoIP service” and “interconnected VoIP provider”).

<sup>3</sup> TRS, created by Title IV of the Americans with Disabilities Act of 1990 (ADA), 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(a)(3); 47 C.F.R. § 64.601(14) (defining TRS).

<sup>4</sup> See 47 U.S.C. § 225(b)(1).

<sup>5</sup> As discussed below, the Fund compensates providers of eligible interstate TRS services, and other TRS services not compensated by the states, for their reasonable costs of providing service. See 47 C.F.R. § 64.604(c)(5)(iii)(E).

<sup>6</sup> 47 C.F.R. § 64.604(c)(5)(iii)(A), (B).

<sup>7</sup> See 47 C.F.R. § 64.603.

with disabilities, if readily achievable, and requires providers of a “telecommunications service”<sup>9</sup> to ensure that the service is accessible to and usable by individuals with disabilities, if readily achievable.<sup>10</sup> Where such access is not readily achievable, the manufacturer or service provider must ensure that the equipment or service is “compatible with” existing peripheral devices or specialized customer premises equipment (CPE) commonly used by individuals with disabilities to achieve access, if such compatibility is readily achievable.<sup>11</sup> Section 255(a) incorporates by reference the ADA definitions of the terms “disability” and “readily achievable.”<sup>12</sup> Section 255(e) directs the Architectural and Transportation Barriers Compliance Board (Access Board), “in conjunction with the Commission,” to develop “guidelines for accessibility of telecommunications equipment and customer premises equipment.”<sup>13</sup> Finally, section 251(a)(2) of the Act, which appears among the general duties of telecommunications carriers, prohibits such carriers from installing “network features, functions, or capabilities that do not comply with the guidelines and standards established pursuant to section 255.”<sup>14</sup>

3. On September 29, 1999, the Commission issued an order implementing the disability access provisions in sections 255 and 251(a)(2).<sup>15</sup> Among other things, the Commission’s section 255 rules: (1) require manufacturers of telecommunications *equipment* or *CPE* to ensure that their equipment is designed, developed and fabricated to be accessible to individuals with disabilities, if readily achievable and, where such accessibility is not readily achievable, to ensure that the equipment is compatible with existing peripheral devices or specialized CPE, if readily achievable;<sup>16</sup> (2) require telecommunications *service* providers to ensure that their service is accessible to individuals with disabilities, if readily

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<sup>8</sup> For ease of reference, we will use the term “equipment” hereinafter to refer both to “equipment” and “CPE” unless otherwise specified.

<sup>9</sup> “The term ‘telecommunications service’ means the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used.” 47 U.S.C. § 153(46).

<sup>10</sup> 47 U.S.C. § 255(b) (“A manufacturer of telecommunications equipment or [CPE] shall ensure that the equipment is designed, developed, and fabricated to be accessible to and usable by individuals with disabilities, if readily achievable.”); 47 U.S.C. § 255(c) (“A provider of telecommunications service shall ensure that the service is accessible to and usable by individuals with disabilities, if readily achievable.”).

<sup>11</sup> 47 U.S.C. § 255(d) (“Whenever the requirements of subsections (b) and (c) are not readily achievable, such a manufacturer or provider shall ensure that the equipment or service is compatible with existing peripheral devices or specialized [CPE] commonly used by individuals with disabilities to achieve access, if readily achievable.”).

<sup>12</sup> “Disability” is defined to include “a physical or mental impairment that substantially limits one or more of the major life activities of such individual,” “a record of such impairment,” or the state of “being regarded as having such an impairment.” 42 U.S.C. § 12102(2); *see* 47 U.S.C. § 255(a)(1) (adopting definition set forth in 42 U.S.C. § 12102(2)(A)); “Readily achievable” means “easily accomplishable and able to be carried out without much difficulty or expense.” 42 U.S.C. § 12181(9); *see* 47 U.S.C. § 255(a)(2) (adopting definition set forth in 42 U.S.C. § 12181(9)). In determining whether an action is readily achievable, the ADA lists factors to be considered, including the nature and cost of the action, and the financial resources of the covered entity, among others. 42 U.S.C. § 12181(9)(A)-(D).

<sup>13</sup> 47 U.S.C. § 255(e). The Access Board is an independent federal regulatory agency created under section 502 of the Rehabilitation Act of 1973, 29 U.S.C. § 792, to enforce the Architectural Barriers Act of 1968, 42 U.S.C. §§ 4151-4157. It consists of 25 members – 12 federal agency representatives and 13 members appointed by the President of the United States from the general public of whom at least a majority shall be individuals with disabilities.

<sup>14</sup> 47 U.S.C. § 251(a)(2).

<sup>15</sup> *Implementation of Sections 255 and 251(a)(2) of the Communications Act of 1934, as Enacted by the Telecommunications Act of 1996*, WT Docket No. 96-198, Report and Order and Further Notice of Inquiry, 16 FCC Rcd 6417 (July 14, 1999) (*Section 255 Order*); *see also* 47 C.F.R. §§ 6.1-6.23 (implementing rules).

<sup>16</sup> 47 C.F.R. § 6.5(a)(1)-(2) (delineating accessibility obligations of manufacturers).

achievable and, where such accessibility is not readily achievable, to ensure that the service is compatible with existing peripheral devices or specialized CPE, if readily achievable;<sup>17</sup> (3) prohibit telecommunications carriers from installing network features, functions, or capabilities that do not comply with the guidelines and standards established in the *Section 255 Order*;<sup>18</sup> (4) require manufacturers and service providers to evaluate the accessibility, usability, and compatibility of covered services and equipment throughout the design and development process;<sup>19</sup> (5) require manufacturers and service providers to ensure that information and documentation provided in connection with equipment or services be accessible to people with disabilities, where readily achievable, and that employee training, where provided at all, account for accessibility requirements;<sup>20</sup> (6) incorporate, with minor modifications, the Access Board definition of the term "accessible" for both products and services, along with the list of actions the Access Board required manufacturers to undertake in order to render products accessible;<sup>21</sup> and (7) define the term "readily achievable," consistent with the ADA definition, as "easily accomplishable and able to be carried out without much difficulty or expense" and provide that determinations as to what is "readily achievable" be made on a case-by-case basis considering, among other factors, the cost and nature of the action and overall resources of the entity.<sup>22</sup>

4. In the *Section 255 Order*, the Commission also applied requirements "comparable to those under section 255" to two information services that it deemed "critical to making telecommunications accessible and usable by people with disabilities."<sup>23</sup> In particular, the Commission's review of the record led it to conclude that its failure to ensure accessibility of voicemail and interactive menu services, and the related equipment that performs these functions, would "seriously undermine the accessibility and usability of the telecommunications services covered by sections 255 and 251(a)(2)."<sup>24</sup> Thus, the Commission asserted ancillary jurisdiction to extend the accessibility requirements to providers of voicemail and interactive menu services and to the manufacturers of related equipment.<sup>25</sup>

5. The *Section 255 Order* included a Notice of Inquiry (*NOI*), which sought comment on applying accessibility requirements to "IP telephony" and "computer-based equipment that replicates telecommunications functionality."<sup>26</sup> The *NOI* sought comment on the extent to which Internet telephony was impairing access to communications services among people with disabilities, the efforts that manufacturers were taking to render new technologies accessible, and the degree to which these technologies should be subjected to the same disability access requirements as traditional telephony facilities.<sup>27</sup>

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<sup>17</sup> 47 C.F.R. § 6.5(b)(1)-(2) (delineating accessibility obligations of service providers).

<sup>18</sup> 47 C.F.R. § 6.5(c) (implementing 47 U.S.C. § 251(a)(2)).

<sup>19</sup> 47 C.F.R. § 6.7(a) ("Manufacturers and service providers shall evaluate the accessibility, usability, and compatibility of equipment and services covered by this part and shall incorporate such evaluation throughout product design, development, and fabrication, as early and consistently as possible. Manufacturers and service providers shall identify barriers to accessibility and usability as part of such a product design and development process").

<sup>20</sup> 47 C.F.R. § 6.11(a) (detailing methods by which manufacturers and service providers shall ensure access to information and documentation it provides to its customers, if readily achievable); 47 C.F.R. § 6.11(c) (addressing training requirements).

<sup>21</sup> 47 C.F.R. § 6.3(a) (defining "accessible").

<sup>22</sup> 47 C.F.R. § 6.3(g) (defining "readily achievable").

<sup>23</sup> *Section 255 Order*, 16 FCC Rcd at 6455, para. 93.

<sup>24</sup> *Section 255 Order*, 16 FCC Rcd at 6459, para. 103.

<sup>25</sup> *Id.*, 16 FCC Rcd at 6455-62, para. 108; *see also* 47 C.F.R. §§ 7.1-7.23.

<sup>26</sup> *Section 255 Order*, 16 FCC Rcd at 6483-84, paras. 173-76.

<sup>27</sup> *Id.*, 16 FCC Rcd at 6484-86, paras. 177-185.

6. In response to the *NOI*, disability advocates generally argued that manufacturers and providers will not voluntarily remedy accessibility issues unless compelled to do so by regulation.<sup>28</sup> Several commenters specifically pointed to the need for mandatory standards to ensure that IP telephony is compatible with TTYs.<sup>29</sup> They argued that if IP telephony is not accessible to those with disabilities, the purposes of section 255 would be thwarted.<sup>30</sup> Several industry commenters argued that the Commission should not extend the requirements of section 255 to IP-telephony under its ancillary jurisdiction absent evidence of widespread use of IP-telephony and evidence that the service is an “essential component of telecommunications.”<sup>31</sup> Industry commenters also pointed to the voluntary development of accessibility standards by a number of standards-setting organizations as evidence that regulatory intervention is not needed.<sup>32</sup>

### **B. Section 225 of the Communications Act of 1934 (TRS)**

7. Title IV of the Americans with Disabilities Act of 1990 (ADA), which added section 225 to the Act,<sup>33</sup> instructs the Commission to ensure that TRS is available, “to the extent possible and in the most efficient manner,” to persons with hearing or speech disabilities in the United States.<sup>34</sup> The statute requires each common carrier offering “telephone voice transmission services” to offer TRS to persons with hearing and speech disabilities that is “functionally equivalent” to voice telephone service.<sup>35</sup> When section 225 was first implemented, TRS calls were placed using a TTY<sup>36</sup> connected to the public switched telephone network (PSTN).<sup>37</sup> Since then, the Commission has recognized other forms of TRS, including Speech-to-Speech, and captioned telephone service, as well as several Internet-based forms of TRS such as Video Relay Service (VRS), IP Relay, and IP captioned telephone service.<sup>38</sup>

8. Section 225 creates a cost recovery regime under which providers of TRS are compensated

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<sup>28</sup> See, e.g., Comments of The American Foundation for the Blind at 20 (Jan. 13, 2000); Comments of Trace/Gallaudet at 9 (Jan. 13, 2000).

<sup>29</sup> See, e.g., Comments of The National Association of the Deaf at 11-19 (Jan. 13, 2000). A “TTY,” or text telephone, is a device that sends text over the telephone network. See 47 C.F.R. § 64.601(15) (defining TTY).

<sup>30</sup> See, e.g., Comments of The National Association of the Deaf at 11 (Jan. 13, 2000).

<sup>31</sup> See, e.g., Reply Comments of MCI at 6 (Feb. 14, 2000); see also Comments of Microsoft at 11-12 (Jan. 13, 2000).

<sup>32</sup> See, e.g., Comments of VON Coalition at 5-11 (Jan. 13, 2000) (describing various industry standards targeted at improving accessibility for the hearing impaired and identifying potential solutions).

<sup>33</sup> Pub. L. No. 101-336, § 401, 104 Stat. 327, 336-69 (1990); 47 U.S.C. § 225.

<sup>34</sup> 47 U.S.C. § 225(b)(1).

<sup>35</sup> 47 U.S.C. § 225(a)(3), (c). As defined in section 225, the term “telecommunications relay services” means “telephone transmission services that provide the ability for an individual who has a hearing impairment or speech impairment to engage in communication by wire or radio with a hearing individual in a manner that is functionally equivalent to the ability of an individual who does not have a hearing impairment or speech impairment to communicate using voice communication services by wire or radio. Such term includes services that enable two-way communication between an individual who uses a TDD or other nonvoice terminal device and an individual who does not use such a device.” 47 U.S.C. § 225(a)(3).

<sup>36</sup> See 47 C.F.R. § 64.601(15) (defining TTY).

<sup>37</sup> *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CC Docket Nos. 90-571, 98-67; CG Docket No. 03-123, Report and Order, Order on Reconsideration, and Further Notice of Proposed Rulemaking, 19 FCC Rcd 12475, 12479, para. 3 n.18 (June 30, 2004) (*2004 TRS Report & Order*) (describing how a traditional TRS call works).

<sup>38</sup> See generally *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 8379, 8381-82, para. 3 (July 20, 2006) (describing various forms of TRS).

for their reasonable costs of providing TRS.<sup>39</sup> Specifically, section 225 provides that the “costs caused by” the provision of *interstate* TRS “shall be recovered from all subscribers for every interstate service,” and the “costs caused by” the provision of *intrastate* TRS “shall be recovered from the intrastate jurisdiction.”<sup>40</sup> With respect to interstate TRS, there are two components to the cost recovery framework set forth in the Commission’s rules: (1) collecting contributions from common carriers providing interstate telecommunications services to create a fund from which eligible TRS providers may be compensated;<sup>41</sup> and (2) compensating eligible TRS providers from the fund for the costs of providing eligible TRS services.<sup>42</sup> Under Commission rules, interstate telecommunications carriers contribute to the Interstate TRS Fund based on a percentage of their interstate end-user telecommunications revenues.<sup>43</sup> All contributions are placed in the Fund, which is administered by the TRS Fund administrator, currently the National Exchange Carrier Association, Inc. (NECA). The TRS Fund administrator uses these funds to compensate eligible TRS providers for the costs of providing TRS.<sup>44</sup>

### C. Interconnected VoIP Services

9. On March 10, 2004, the Commission initiated a rulemaking proceeding to examine issues relating to services and applications that use Internet Protocol (IP), including but not limited to VoIP services<sup>45</sup> (collectively, “IP-enabled services”).<sup>46</sup> The Commission noted that some IP-enabled services, to the extent that they are viewed as “replacements for traditional voice telephony[,]” raise “social policy concerns” relating to emergency services, law enforcement, disabilities access, consumer protection, and universal service.<sup>47</sup> It further considered whether a service’s functional equivalence to, or substitutability for, traditional telephony provides a basis for determining the appropriate regulatory treatment of that service.<sup>48</sup>

10. With regard to disability access requirements, the Commission sought comment on “how we should apply the disability accessibility requirements set forth in sections 255 and 251(a)(2) to any providers of VoIP or other IP-enabled services.”<sup>49</sup> Noting that the Commission previously had relied on its ancillary authority under Title I of the Act to apply section 255 obligations to providers of voicemail and interactive menu services, both of which were deemed “information services” under the Act, the Commission asked whether that approach would be “appropriate with regard to any providers of VoIP or

<sup>39</sup> 47 U.S.C. § 225(d)(3). Congress directed that TRS users cannot be required to pay rates “greater than the rates paid for functionally equivalent voice communication services.” 47 U.S.C. § 225(d)(1)(D).

<sup>40</sup> 47 U.S.C. § 225(d)(3)(B); *see also* 47 C.F.R. § 64.604(c)(5)(ii). The costs of intrastate TRS generally are recovered by the states through rate adjustments or surcharges on local phone bills. Currently, the costs of all IP Relay, VRS, and IP captioned telephone service calls are compensated from the Fund.

<sup>41</sup> 47 C.F.R. § 64.604(c)(5)(iii)(A).

<sup>42</sup> 47 C.F.R. § 64.604(c)(5)(iii)(E).

<sup>43</sup> 47 C.F.R. § 64.604(c)(5)(iii)(A), (B).

<sup>44</sup> Contributors to the Interstate TRS Fund annually must file with the Universal Service Administrative Company a completed Telecommunications Reporting Worksheet (FCC Form 499-A). The revenue data reported on this form is used by NECA to calculate carriers’ TRS Fund obligations.

<sup>45</sup> The Commission has not formally defined the term “VoIP” but has stated that its use of the term generally encompasses “any IP-enabled services offering real-time, multidirectional voice functionality, including, but not limited to, services that mimic traditional telephony.” *See IP-Enabled Services*, WC Docket No. 04-36, Notice of Proposed Rulemaking, 19 FCC Rcd 4863, 4866, para. 3 n.7 (March 10, 2004) (*IP-Enabled Services NPRM*). VoIP services include “interconnected VoIP services,” defined at 47 C.F.R. § 9.3. *See note 2 supra*.

<sup>46</sup> *IP-Enabled Services NPRM*, 19 FCC Rcd 4863.

<sup>47</sup> *Id.*, 19 FCC Rcd at 4886-87, para. 36.

<sup>48</sup> *Id.*, 19 FCC Rcd at 4887, para. 37.

<sup>49</sup> *Id.*, 19 FCC Rcd at 4901-03, paras. 58-60.

other IP-enabled services” that the Commission ultimately may deem to be information services.<sup>50</sup>

11. The Commission also sought comment on “how migration to IP-enabled services will affect our statutory obligation to ensure that interstate and intrastate telecommunications relay services are available to hearing-impaired and speech-impaired individuals.”<sup>51</sup> More specifically, the Commission sought comment on how “other decisions” it may make in the *IP-Enabled Services* proceeding “might affect contributions to the Interstate TRS Fund” and whether, in this regard, the Commission “should amend its [TRS] rules in light of the increasing use of IP-enabled services.”<sup>52</sup>

12. In response to the *IP-Enabled Services NPRM*, a majority of commenters addressing these issues recommended that the Commission apply “social policy” regulations, such as disability access and TRS contribution requirements, to VoIP services and other IP-enabled services, whether those services are deemed to be an “information service” or a “telecommunication service” under the Act.<sup>53</sup> Other commenters argued, however, that social policy considerations would be best addressed by competitive market forces and therefore urged the Commission to defer regulation until it is demonstrated that the market will not address these issues.<sup>54</sup>

13. Shortly after the release of the *IP-Enabled Services NPRM*, the Commission hosted a “Solutions Summit” at which members of the disability community, industry representatives, and Commission staff discussed ways to address problems of disabilities access as communications services increasingly move to Internet-based platforms.<sup>55</sup> The information gathered at this forum has informed the Commission’s understanding of various advancements, innovations, and disabilities access issues relating to VoIP services for purposes of our *IP-Enabled Services* rulemaking proceeding.<sup>56</sup>

14. Subsequently, the Commission addressed issues relating to the provision and regulation of interconnected VoIP services in a number of proceedings. First, on November 9, 2004, the Commission adopted the *Vonage Order*,<sup>57</sup> in which it addressed the scope of the Commission’s regulatory authority over an interconnected VoIP service that contained both intrastate and interstate components. The

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<sup>50</sup> *Id.*, 19 FCC Rcd at 4902, para. 58. The Commission has issued two pronouncements in recent years concerning the appropriate legal classification of particular IP-enabled services as “telecommunications service[s]” or “information service[s]” under the Act. See *Petition for Declaratory Ruling that Pulver.com’s Free World Dialup is Neither Telecommunications Nor a Telecommunications Service*, WC Docket No. 03-45, Order, 19 FCC Rcd 3307 (2004); *Petition for Declaratory Ruling that AT&T’s Phone-to-Phone IP Telephony Services are Exempt from Access Charges*, WC Docket No. 03-45, Order, 19 FCC Rcd 7457 (Feb. 19, 2004). The ultimate classification of these services as telecommunications services or information services is significant to the extent that “telecommunications services” generally are subject to a comprehensive regulatory regime under Title II of the Act (including section 255), while “information services” fall under the Commission’s Title I jurisdiction and generally are subject to more limited regulation by the Commission. The actions we take today do not prejudice the Commission’s ultimate classification of interconnected VoIP service as a “telecommunications service” or as an “information service” under the statutory definitions of those terms.

<sup>51</sup> *IP-Enabled Services NPRM*, 19 FCC Rcd at 4903, para. 60.

<sup>52</sup> *Id.*

<sup>53</sup> See, e.g., Comments of Communication Service for the Deaf at 5-9 (May 28, 2004).

<sup>54</sup> See, e.g., Comments of Motorola at 14-15 (May 28, 2004).

<sup>55</sup> *FCC Internet Policy Working Group To Hold Second “Solutions Summit” On Friday, May 7, 2004 to Focus on Disabilities Access Issues Associated With Internet-based Communications Services*, Public Notice, WC Docket No. 04-36 (rel. March 11, 2004).

<sup>56</sup> See Voice over IP (VoIP) Summit, May 7, 2004 at <http://www.fcc.gov/voip/voipsummit.html> (containing links to summit presentations).

<sup>57</sup> *Vonage Holdings Corp. Petition for Declaratory Ruling Concerning an Order of the Minnesota Pub. Util. Comm’n.*, Order, 19 FCC Rcd 22404 (2004) (*Vonage Order*), *aff’d*, *Minnesota Pub. Util. Comm’n. v. FCC*, 483 F.3d 570 (8th Cir. Mar. 21, 2007).

Commission preempted an order of the Minnesota Public Utilities Commission that applied Minnesota's traditional "telephone company" regulations to Vonage's DigitalVoice service -- an interconnected VoIP service under the definition subsequently adopted by the Commission.<sup>58</sup> Without classifying Vonage's service as either an "information service" or a "telecommunications service" under the Act, the Commission held that DigitalVoice cannot be separated into interstate and intrastate communications for compliance with Minnesota's requirements without negating valid federal policies and rules.<sup>59</sup> The *Vonage Order* made "clear that this Commission, not the state commissions, has the responsibility and obligation to decide whether certain regulations apply to DigitalVoice and other IP-enabled services having the same capabilities."<sup>60</sup> The Commission further indicated that it intended to resolve "important regulatory matters with respect to IP-enabled services" in the *IP-Enabled Services* rulemaking proceeding.<sup>61</sup>

15. On three occasions, the Commission has extended certain Title II obligations to interconnected VoIP providers.<sup>62</sup> On May 19, 2005, the Commission asserted its ancillary jurisdiction under Title I of the Act and its authority under section 251(e) to require interconnected VoIP providers to supply 911 emergency calling capabilities to their customers for services that utilize the PSTN.<sup>63</sup> On June 21, 2006, the Commission in the *2006 Interim Contribution Methodology Order*, among other things, established universal service contribution obligations for interconnected VoIP providers based on its permissive authority under section 254(d) and its ancillary jurisdiction under Title I of the Act.<sup>64</sup> On March 13, 2007, the Commission extended section 222's customer proprietary network information obligations to interconnected VoIP providers using its Title I authority.<sup>65</sup>

### III. DISCUSSION

16. We require providers of "interconnected VoIP service," as defined by the Commission,<sup>66</sup> and manufacturers of equipment or CPE that is specially designed to provide this service, to comply with disability access requirements mirroring those in section 255 and in the Commission's section 255 rules.<sup>67</sup> This conclusion is consistent with the objective identified by the Commission in the *IP-Enabled Services*

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<sup>58</sup> See *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, 10257-58, para. 24 (June 3, 2005) (*VoIP 911 Order*) (defining "interconnected VoIP service"), *aff'd*, *Nuvio Corp. v. FCC*, 473 F.3d 302 (D.C. Cir. 2006); 47 C.F.R. § 9.3 (definition of "interconnected VoIP service" adopted in *VoIP 911 Order*).

<sup>59</sup> *Vonage Order*, 19 FCC Rcd at 22411-12, para. 14.

<sup>60</sup> *Id.*, 19 FCC Rcd at 22405, para. 1.

<sup>61</sup> *Id.*, 19 FCC Rcd at 22411, n. 46 & 22432, para. 44.

<sup>62</sup> Additionally, on August 5, 2005, the Commission determined that providers of interconnected VoIP services are subject to the Communications Assistance for Law Enforcement Act (CALEA). See *Communications Assistance for Law Enforcement Act and Broadband Access and Services*, ET Docket No. 04-295, RM-10865, First Report and Order and Further Notice of Proposed Rulemaking, [20 FCC Rcd 14989, 14991-92, para. 8 \(2005\)](#) (*CALEA First Report and Order*), *aff'd*, *American Council on Education v. FCC*, 451 F.3d 226 (D.C. Cir. 2006).

<sup>63</sup> See *VoIP 911 Order*, 20 FCC Rcd at 10246, para. 1.

<sup>64</sup> See *Universal Service Contribution Methodology*, WC Docket No. 06-122; CC Docket Nos. 96-45, 98-171, 90-571, 92-237; NSD File No. L-00-72; CC Docket Nos. 99-200, 95-116, 98-170; WC Docket No. 04-36, Report and Order and Notice of Proposed Rulemaking, 21 FCC Rcd 7518, 7538-43, paras. 38-49 (rel. June 27, 2006) (*2006 Interim Contribution Methodology Order*), *aff'd in relevant part*, *Vonage Holdings Corp., v. FCC*, 2007 WL 1574611 (D.C. Cir. June 1, 2007).

<sup>65</sup> See *Implementation of the Telecommunications Act of 1996; Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information; IP-Enabled Services*, CC Docket No. 96-115; WC Docket No. 04-36, Report and Order and Further Notice of Proposed Rulemaking, FCC 07-22 (rel. April 2, 2007) (*CPNI Order*).

<sup>66</sup> See 47 C.F.R. § 9.3 (defining "interconnected VoIP service").



*NPRM* of facilitating the deployment of broadband services and applications, relying “wherever possible” on competition and applying “discrete” regulatory requirements only where such requirements are “necessary to fulfill important policy objectives.”<sup>68</sup> We also require providers of interconnected VoIP service to comply with the TRS requirements contained in our regulations, 47 C.F.R. §§ 64.601 *et seq.* Among the TRS requirements that we extend to interconnected VoIP providers, we require such providers to contribute to the Interstate TRS Fund under the Commission’s existing contribution rules, and to offer 711 abbreviated dialing for access to relay services.<sup>69</sup> We conclude that the actions we take today are necessary to give full effect to the accessibility objectives embodied in sections 255 and 225, and to fulfill our statutory mandate to make available a nationwide communications system that promotes the safety and welfare of all Americans.<sup>70</sup>

#### A. Disability Access Obligations of Interconnected VoIP Providers and Manufacturers

17. Although VoIP industry commenters contend that voluntary measures and market-based approaches will ensure reliable access to VoIP services and products for people with disabilities,<sup>71</sup> the record reveals a gap between emerging technologies and the implementation of features needed to render those technologies accessible.<sup>72</sup> As a result, as increasing numbers of consumers replace their traditional circuit-switched phone service with interconnected VoIP service,<sup>73</sup> the health, safety, and livelihood of individuals with disabilities may be placed at risk by lack of ready and reliable access to interconnected VoIP service. In particular, although individuals with disabilities may subscribe to an accessible telecommunications service at home, such a service increasingly may not be available when the individual needs to place or receive a call at a location outside of the home, including a workplace or other public venue, or in the home of a family member or friend. In addition, the record is clear that, even where a fully accessible landline phone is available to an individual with a disability, the accurate and reliable transmission of information between the individual and a called party *via*, for example, a TTY, may not be assured if the called party is a VoIP service customer using a VoIP service that is not

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<sup>67</sup> Nothing in this *Order* alters telecommunications carriers’ duty “not to install network features, functions, or capabilities that do not comply with the guidelines and standards established pursuant to section 255.” *See* 47 U.S.C. § 251(a)(2).

<sup>68</sup> *IP-Enabled Services NPRM*, 19 FCC Rcd at 4867, para. 5.

<sup>69</sup> *See* 47 C.F.R. § 64.603.

<sup>70</sup> 47 U.S.C. §§ 151, 255.

<sup>71</sup> *See, e.g.*, Comments of 8x8, Inc. at 20-22 (March 28, 2004) (regulatory intervention is unwarranted because competitive forces are providing solutions to disabilities access problems); Comments of VON Coalition at 1, 25 (March 28, 2004) (asserting that disabilities access should result from voluntary agreements, rather than regulation).

<sup>72</sup> *See, e.g.*, National Council on Disability, “The Need for Federal Legislation and Regulation Prohibiting Telecommunications and Information Services Discrimination,” at 4-8 (Dec. 19, 2006) (noting that the lack of disability safeguards for Internet-based and other emerging technologies is “beginning to take their toll” as reflected in the emergence of “inaccessible user interfaces on consumer equipment” and “a lack of interoperable and reliable text transmissions,” among others); Comments of The American Foundation for the Blind at 2 (May 28, 2004) (“Voluntary measures and market-based approaches have not, and will not, ensure reliable access to IP-enabled communication for people with disabilities.”); Comments of Inclusive Technology at 7-11 (May 27, 2004) (enumerating barriers faced by persons with disabilities in the use of VoIP services today, including software applications that are incompatible with screen readers and that provide no support for “screen magnification utilities;” and the use of touchscreens to navigate through software without an alternative modality such as voice commands).

<sup>73</sup> *See 2006 Interim Contribution Methodology Order*, 21 FCC Rcd at 7528-29, para. 19 (noting that the number of interconnected VoIP subscribers had grown from 150,000 in 2003 to 4.2 million by the end of 2005). *See also VoIP Service Revenue Doubles in North America, Europe, Asia Pacific in 2005*, Infonetics Press Release (July 26, 2006) at <http://www.infonetics.com/resources/purple.shtml?ms06.vip.nr.shtml>; *March Broadband Buzz*, Bear Stearns (March 12, 2007); *Cable Telephone Subscriptions Growth Accelerates*, IP Media Monitor (March 12, 2007) at <http://ipmediamonitor.com/>.

accessible.<sup>74</sup> For these reasons, where interconnected VoIP service substitutes for traditional phone service, the same disability access protections that currently apply to telecommunications services and equipment must apply to interconnected VoIP service and equipment. Because consumers have a reasonable expectation that interconnected VoIP services are replacements for traditional phone service, the same disability access protections that currently apply to telephony must apply to interconnected VoIP. Since its enactment in 1996, section 255 has created heightened awareness and expertise by service providers and manufacturers in matters relating to accessible telecommunications services. Section 255 also has served as an impetus for collaboration between industry and disability rights groups with respect to developing accessibility standards and technologies that have made possible greater participation in our society by individuals with disabilities.<sup>75</sup> Absent regulatory intervention, newly emerging interconnected VoIP services that hold the promise of independence and even fuller participation in our society by those with disabilities may instead result in their further alienation and exclusion within our society and place these individuals at increased risk in emergency situations.<sup>76</sup>

### 1. VoIP Services and Equipment to Which Disability Access Obligations Apply

18. **Covered Entities.** We require providers of “interconnected VoIP service” to comply with the disability access requirements we adopt today.<sup>77</sup> Consistent with our findings in the *VoIP 911 Order*, we conclude that the services for which section 255 accessibility obligations are most relevant include those that permit users to receive calls that originate on the PSTN and to terminate calls to the PSTN.<sup>78</sup> It is appropriate, in our view, to extend disability access obligations to interconnected VoIP services because

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<sup>74</sup> See, e.g., Comments of The National Association of the Deaf at 11-19 (Jan. 13, 2000) (describing barriers to achieving compatibility between TTY and IP technologies); see also National Council on Disability, “The Need for Federal Legislation and Regulation Prohibiting Telecommunications and Information Services Discrimination,” at 33 (Dec. 19, 2006) (“[C]oncerns exist about the extent to which TTY signals are accurately transmitted over the packet-switching technology used by Internet technologies. Although some packet loss that naturally occurs in Internet transmissions will not affect voice conversations, even low levels of packet loss can produce TTY garbling and other transmission errors. In addition, compression technologies often used over the Internet can distort TTY signals. So long as certain individuals remain dependent on this technology and TTYs continue to provide the only effective text method of communicating with emergency authorities, it will be necessary for IP text communications to support compatibility with analog TTY products, to the same extent that IP voice telephony products are compatible with analog PSTN voice telephony products.”).

<sup>75</sup> In addition, we note that the Access Board has convened the Telecommunications and Electronic and Information Technology Advisory Committee (TEITAC) to provide recommended updates of accessibility standards and guidelines issued under section 255 of the Act and section 508 of the Rehabilitation Act. See 47 U.S.C. § 255, 29 U.S.C. § 794(d). We will review any final guidelines concerning these issues and assess, at that time, if any amendments to our section 255 rules would be appropriate.

<sup>76</sup> See, e.g., National Council on Disability, “The Need for Federal Legislation and Regulation Prohibiting Telecommunications and Information Services Discrimination,” at 6 (Dec. 19, 2006) (“[H]igh-speed broadband Internet technologies can provide users with multiple options for conversing, the ability to perform numerous functions through a single device, ‘always on’ service, clear video communications, and software solutions for redundant interfaces and operational controls. However, these benefits will only accrue to people with disabilities if laws requiring the incorporation of accessible design are adopted now, when the costs and efforts associated with providing this access are still a mere fraction of the costs of producing mainstream products and services.”); see also Suzanne Robitaille, “How VoIP Can Connect the Disabled,” Business Week Online (April 28, 2004), available at [http://www.businessweek.com/technology/content/apr2004tc20040428\\_4395\\_tc116.htm](http://www.businessweek.com/technology/content/apr2004tc20040428_4395_tc116.htm).

<sup>77</sup> See 47 C.F.R. §§ 9.3, 54.5 (defining “interconnected VoIP service”); see also *VoIP 911 Order*, 20 FCC Rcd at 10257-58, para. 24; *2006 Interim Contribution Methodology Order*, 21 FCC Rcd at 7537, para. 36; *CPNI Order*, 2007 WL 983953, para. 54 n.170.

<sup>78</sup> *VoIP 911 Order*, 20 FCC Rcd at 10256, para. 23 (in determining which IP-enabled services should be subject to regulation, “[w]e begin by limiting our inquiry to VoIP services, for which some type of 911 capability is most relevant”).

these services increasingly are used to replace analog voice service.<sup>79</sup> From a disabilities standpoint, we agree with CSD that the applicability of disability access obligations should turn on the functionalities of a service, “not on the nature of its underlying transmissions or the technologies used to send those transmissions.”<sup>80</sup>

19. Limiting the application of the rules we adopt today to providers offering service that is increasingly used to replace analog voice service balances the statutory imperative of making available a national communications network “to all the people of the United States”<sup>81</sup> with the goal of relying “wherever possible” on competition and applying “discrete” regulatory requirements only where “necessary to fulfill important policy objectives.”<sup>82</sup> By limiting the application of our rules to those VoIP communications that use an interconnected VoIP service (and, thus, permit users to receive calls from *and* terminate calls to the PSTN), this approach ensures that, from the consumer’s perspective, services that are perceived and used as a substitute for traditional telephony are subject to the same obligations that apply to traditional telephony.<sup>83</sup> In addition, given that much of the appeal of interconnected VoIP services to consumers derives from the ability to place calls to and receive calls from the PSTN, providers of these services benefit directly from their interconnection with the PSTN.<sup>84</sup> In light of this benefit and the related benefit of expanded PSTN subscribership made possible by section 255’s disability access requirements, we find it reasonable to extend the disability access requirements that, until now, have generally applied only to telecommunications service providers, to providers of interconnected VoIP services. Finally, because the approach we adopt here minimizes the likelihood that providers with disability access obligations will compete directly with providers without such obligations, principles of competitive neutrality are served by extending these obligations to interconnected VoIP providers.<sup>85</sup>

20. We also apply disability access obligations mirroring those under section 255 to any equipment or CPE specially designed to provide interconnected VoIP service and that is needed to

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<sup>79</sup> *Accord* Comments of ITAA at 9-11 (May 28, 2004) (arguing that only VoIP services that are “POTS-equivalent” should be subject to “social regulation”). The acronym “POTS” stands for “plain old telephone service.”

<sup>80</sup> Comments of Communication Service for the Deaf, Inc. at ii-iii, 5-7 (May 28, 2004) (urging Commission to classify IP-enabled services that are functionally equivalent to traditional telephony or that provide a substitute for traditional telephony as telecommunications services for purposes of disability access mandates). As noted in our recent orders, an interconnected VoIP service offers the *capability* for users to receive calls from and terminate calls to the PSTN; the obligations we establish apply to all VoIP communications made using an interconnected VoIP service, even those that do not involve the PSTN. Furthermore, these obligations apply regardless of how an interconnected VoIP provider achieves access to and from the PSTN, whether directly or through a third party. *2006 Interim Contribution Methodology Order*, 21 FCC Rcd at 7537, para. 36; *see also* *CALEA Order*, 20 FCC Rcd at 15008, para. 39; *CPNI Order*, 2007 WL 983953, n.180.

<sup>81</sup> 47 U.S.C. § 151.

<sup>82</sup> *IP-Enabled Services NPRM*, 19 FCC Rcd at 4867, para. 5.

<sup>83</sup> *Accord 2006 Interim Contribution Methodology Order*, 21 FCC Rcd at 7537, para. 36. As the Commission had noted, however, the category of providers subject to these obligations may need to expand as new VoIP services increasingly substitute for traditional phone service. *Id.* *See also* Comments of SBC at 110 (May 28, 2004) (because calls move seamlessly between the PSTN and IP networks, both networks must afford adequate accessibility in order for explicit accessibility obligations upon telecommunications services to be effective).

<sup>84</sup> *See 2006 Interim Contribution Methodology Order*, 21 FCC Rcd at 7540, para. 43.

<sup>85</sup> *Id.*, 21 FCC Rcd at 7541, para. 44. By adopting the definition of “interconnected VoIP service” that we adopted in the *VoIP 911*, *2006 Interim Contribution Methodology*, and *CPNI* orders and that is codified in sections 9.3 and 54.5 of the Commission’s rules, we anticipate that there will be less confusion among service providers and within the disability community regarding which entities are subject to these obligations. For this additional reason, we reject commenter suggestions to identify a subset of VoIP services other than the category we have identified here. *See, e.g.*, Comments of NCTA at 7-9 (May 28, 2004) (proposing similar four-part test for identifying which VoIP services should be subject to access requirements).

effectively use an interconnected VoIP service.<sup>86</sup> Because such specialized equipment and CPE are integral to the provision of interconnected VoIP service, we conclude that the disability access goals embodied in section 255 are best served by applying the section 255 requirements both to providers of interconnected VoIP service and to manufacturers of equipment that is specifically designed for that service, including specially designed software, hardware, and network equipment.<sup>87</sup> The additional qualification that covered equipment and CPE be limited to that needed to effectively use interconnected VoIP service also fulfills the underlying purpose of section 255 by avoiding applying our rules to products or features that, while popular, are not strictly needed to effectively use interconnected VoIP service. As the Commission found when it extended the accessibility requirements of section 255 to manufacturers of equipment and CPE used to provide voicemail and interactive menu services, we find that the failure to require accessibility of interconnected VoIP equipment would seriously undermine the accessibility and usability of interconnected VoIP services.<sup>88</sup>

21. **Legal Authority.** We exercise our Title I ancillary jurisdiction to establish a regulatory framework applying disability access requirements to all interconnected VoIP providers and related equipment manufacturers. Therefore, even if interconnected VoIP services ultimately are determined to be information services rather than telecommunications services, Title I provides authority for the actions the Commission takes in this *Order*.<sup>89</sup> We note that the action we take here is consistent with that taken by the Commission in the *Section 255 Order*, in which it determined that it has Title I authority to regulate information services and equipment manufacturers and, on that basis, extended the section 255 obligations to providers of voicemail and interactive menu services and to the manufacturers of equipment needed to offer those services.<sup>90</sup>

22. Ancillary jurisdiction may be employed, in the Commission's discretion, when Title I of the Act gives the agency 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."<sup>91</sup> First,

<sup>86</sup> See, e.g., Comments of The National Association of the Deaf at 20 (Jan. 13, 2000) (asserting that manufacturers of hardware used to create IP telephony gateways, makers of private branch exchanges, gatekeepers, IP telephony software manufacturers, relay service equipment vendors and associated CPE manufacturers should be subject to disability access rules).

<sup>87</sup> Section 255(b) requires manufacturers of telecommunications equipment and CPE to implement "readily achievable" measures to ensure that their equipment is designed, developed, and fabricated to be accessible to and usable by individuals with disabilities, if readily achievable. 47 U.S.C. § 255(b). Whenever this requirement is not readily achievable, the manufacturer must ensure that the equipment is compatible with existing peripheral devices or specialized customer premises equipment commonly used by individuals with disabilities to achieve access, if readily achievable. 47 U.S.C. § 255(d). In the *Section 255 Order*, the Commission determined that the terms "telecommunications equipment" and "customer premises equipment" have the meanings set forth in section 3 of the Act, and include software integral to the equipment's operation. *Section 255 Order*, 16 FCC Rcd at 6425, para. 12.

<sup>88</sup> *Section 255 Order*, 16 FCC Rcd at 6455-62, paras. 93-108.

<sup>89</sup> To the extent the Commission later finds that interconnected VoIP services are telecommunications services, these disability access obligations would, of course, be imposed by the express language of section 255.

<sup>90</sup> *Section 255 Order*, 16 FCC Rcd at 6461, para. 106 ("Where, as here, we have subject matter jurisdiction over the services and equipment involved, and the record demonstrates that implementation of the statute will be thwarted absent use of our ancillary jurisdiction, our assertion of jurisdiction is warranted. Our authority should be evaluated against the backdrop of an expressed congressional policy favoring accessibility for persons with disabilities. This backdrop serves to buttress the actions taken today, not limit it."). We also note that the Commission's ancillary jurisdiction under Title I to impose regulatory obligations on broadband Internet access service providers was recently recognized by the Supreme Court. *NCTA v. Brand X Internet Services*, 545 U.S. 967, 996 (2005) (stating that after designating cable modem service an information service, "the Commission remains free to impose special regulatory duties on facilities-based [information service providers] under its Title I ancillary jurisdiction").

<sup>91</sup> See *United States v. Southwestern Cable Co.*, 392 U.S. 157, 177-78 (1968). *Southwestern Cable*, the lead case on the ancillary jurisdiction doctrine, upheld certain regulations applied to cable television systems at a time before the

we find that we have subject matter jurisdiction over interconnected VoIP services. As the Commission found in the *VoIP 911, 2006 Interim Contribution Methodology*, and *CPNI* proceedings, interconnected VoIP service is covered by the Commission's general jurisdictional grant under sections 1 and 2(a) of the Act, coupled with the definitions set forth in section 3(33) (“radio communication”)<sup>92</sup> and section 3(52) (“wire communication”).<sup>93</sup> The Act gives the Commission subject matter jurisdiction over “all interstate and foreign commerce in communication by wire or radio” and “all persons engaged within the United States in such communication.”<sup>94</sup> Interconnected VoIP services, as the Commission determined in the *VoIP 911, 2006 Interim Contribution Methodology*, and *CPNI* orders, are covered by the statutory definitions of “wire communication” and/or “radio communication” because they involve “transmission of [voice] by aid of wire, cable, or other like connection” and/or “transmission by radio” of voice, and the *Vonage Order* confirmed that interconnected VoIP services are subject to the Commission’s interstate jurisdiction.<sup>95</sup> As such, we conclude that these services fall under the subject matter jurisdiction granted the Commission under the Act.

23. We similarly find that we have subject matter jurisdiction over equipment and CPE that is specially designed to provide interconnected VoIP service and that is needed to effectively use interconnected VoIP service. As noted above, the Act gives the Commission subject matter jurisdiction over “all interstate and foreign commerce in communication by wire or radio” and “all persons engaged within the United States in such communication.”<sup>96</sup> Because the statutory definitions of “radio communication” and “wire communication” include not only transmission, but also the “instrumentalities,

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Commission had an express congressional grant of regulatory authority over that medium. *See id.*, 392 U.S. at 170-71. In *Midwest Video I*, the Supreme Court expanded upon its holding in *Southwestern Cable*. The plurality stated that “the critical question in this case is whether the Commission has reasonably determined that its origination rule will ‘further the achievement of long-established regulatory goals in the field of television broadcasting by increasing the number of outlets for community self-expression and augmenting the public's choice of programs and types of services.’” *Midwest Video I*, 406 U.S. 649, 667-68 (1972) (quoting *Amendment of Part 74, Subpart K, of the Commission's Rules and Regulations Relative to Community Antenna Television Systems; and Inquiry into the Development of Communications Technology and Services to Formulate Regulatory Policy and Rulemaking and/or Legislative Proposals*, Docket No. 18397, First Report and Order, 20 FCC 2d 201, 202 (1969) (*CATV First Report and Order*)). The Court later restricted the scope of *Midwest Video I* by finding that if the basis for jurisdiction over cable is that the authority is ancillary to the regulation of broadcasting, the cable regulation cannot be antithetical to a basic regulatory parameter established for broadcast. *See Midwest Video II*, 440 U.S. 689, 700 (1979).

<sup>92</sup> Section 3(33) of the Act defines “radio communication” as “the transmission by radio of writing, signs, signals, pictures, and sounds of all kinds, including all instrumentalities, facilities, apparatus, and services (among other things, the receipt, forwarding, and delivery of communications) incidental to such transmission.” 47 U.S.C. § 153(33).

<sup>93</sup> Section 3(52) of the Act defines the term “wire communication” or “communication by wire” to mean “the transmission of writing, signs, signals, pictures, and sounds of all kinds by aid of wire, cable, or other like connection between the points of origin and reception of such transmission, including all instrumentalities, facilities, apparatus, and services (among other things, the receipt, forwarding, and delivery of communications) incidental to such transmission.” 47 U.S.C. § 153(52).

<sup>94</sup> 47 U.S.C. § 152(a); *see also* 47 U.S.C. § 151 (setting forth Commission's obligation to make available “to all the people of the United States...a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges...for the purpose of promoting safety of life and property through the use of wire and radio communication”).

<sup>95</sup> The Commission did not formally define the term “interconnected VoIP service” until the *VoIP 911 Order*. *See VoIP 911 Order*, 20 FCC Rcd at 10257-58, para. 24. In that order, the Commission noted that Vonage’s Digital Voice service, which was at issue in the *Vonage Order*, was, in fact, an “interconnected VoIP service.” *Id.*, 20 FCC Rcd at 10246-47, para. 3.

<sup>96</sup> 47 U.S.C. § 152(a); *see also* 47 U.S.C. § 151 (setting forth Commission's obligation to make available “to all the people of the United States...a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges...for the purpose of promoting safety of life and property through the use of wire and radio communication”).

facilities, [and] apparatus” incidental to such transmission, we conclude that our subject matter jurisdiction over interconnected VoIP service extends to interconnected VoIP service equipment and CPE as well.<sup>97</sup> Because equipment that is specially designed to provide interconnected VoIP service constitutes an integral and necessary part of any interconnected VoIP service communication, such equipment is properly viewed as “incidental to such transmission” within the meaning of the statute.<sup>98</sup>

24. Second, we find that the disability access obligations adopted here are “reasonably ancillary” to the Commission’s responsibility to implement section 255 and to give full effect to the accessibility policies embodied in section 255. To the extent that consumers are replacing their traditional phone service with interconnected VoIP service, we believe it is critical that the disability safeguards afforded by Congress with respect to legacy telecommunications services and equipment be carried forward to interconnected VoIP services and equipment.<sup>99</sup> Disability access regulation also is reasonably ancillary to the Commission’s obligation to make available “to all the people of the United States...a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges...for the purpose of promoting safety of life and property through the use of wire and radio communications.”<sup>100</sup> Given that accessible interconnected VoIP services may facilitate communications by individuals with disabilities who otherwise would not have access to a communications service of this, or any other, type and, therefore, result in increased subscribership, the extension of disability access requirements to interconnected VoIP services will further this statutory objective as well.<sup>101</sup> Finally, we conclude that imposing these requirements on manufacturers of equipment that is specially designed to provide interconnected VoIP service is reasonably ancillary to the Commission’s responsibilities under section 255 given Congress’s clearly expressed desire in the analogous telecommunications context to apply disability access requirements both to service providers and to equipment manufacturers, and in

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<sup>97</sup> See 47 U.S.C. § 153(33) (defining “radio communication”); see also 47 U.S.C. § 153(52) (defining “wire communication”). In addition, we note that section 255(b) applies, on its face, to manufacturers of telecommunications equipment and CPE and does not limit itself to equipment used for telecommunications services. 47 U.S.C. § 255(b).

<sup>98</sup> We note that in *American Library Association v. FCC*, 406 F.3d 689 (D.C. Cir. 2005), the court held that the Commission lacked authority to impose broadcast content redistribution rules on equipment manufacturers using ancillary jurisdiction because the rules at issue had no effect until after the regulated transmission was complete. The court reasoned that the television receivers and other “demodulators” that were the subject of the contested rules were not engaged in the process of radio or wire transmission when processing a specified indicator within the television signal (called a “broadcast flag”) to the extent that the required processing would have taken place after the completion of a broadcast transmission. 406 F.3d at 700. In contrast, the rules we adopt today specifying the actions that must be taken with respect to the design, development, and fabrication of specialized interconnected VoIP equipment are intended to act directly on equipment that is an integral and necessary part of any interconnected VoIP service communication. Moreover, these rules apply to specialized equipment that is used during the course of the transmission or receipt of an interconnected VoIP service communication, not after the completion of a transmission, as was the determining factor for the court in *American Library Association*.

<sup>99</sup> We do not adopt commenter suggestions to classify all VoIP services or some subset thereof, for purposes of this proceeding or more generally, as “telecommunications services” within the meaning of section 3 of the Act, which would allow us to rely directly on section 255 to impose accessibility obligations on those VoIP providers. We will address the regulatory classification of IP-enabled services, including VoIP services, in a separate rulemaking proceeding and we make no findings here regarding the appropriate regulatory classification of interconnected VoIP services. See note 50 *supra*.

<sup>100</sup> 47 U.S.C. § 151; see also *VoIP 911 Order*, 20 FCC Rcd at 10262, para. 29.

<sup>101</sup> 47 U.S.C. § 151. As noted in the *VoIP 911 Order*, 20 FCC Rcd at 10262, para. 29, the Commission has previously relied on Title I to satisfy both prongs of the standard for asserting ancillary jurisdiction (1) subject matter jurisdiction; and (2) the statutory goal furthered by the regulation. In *Rural Telephone Coalition v. FCC*, *e.g.*, the D.C. Circuit upheld the Commission’s assertion of ancillary jurisdiction to establish a funding mechanism to support universal service in the absence of specific statutory authority as ancillary to its responsibilities under section 1 of the Act to “further the objective of making communications service available to all Americans at reasonable charges.” *Rural Tel. Coalition v. FCC*, 838 F.2d 1307, 1315 (D.C. Cir. 1988).

light of the Commission's finding, addressed above, that extending disability access obligations to interconnected VoIP equipment is critical to ensuring the accessibility of interconnected VoIP services.<sup>102</sup>

## 2. Specific Disability Access Requirements of Covered Service Providers and Manufacturers

25. We apply our section 255 rules and requirements, without substantive modification, to interconnected VoIP providers and related equipment manufacturers.<sup>103</sup> We note that the Commission adopted this approach in applying accessibility requirements to providers of voicemail and interactive menu services and to related equipment manufacturers.<sup>104</sup>

26. The Commission's section 255 rules and requirements are essentially performance criteria that focus on certain outcomes, as opposed to specifying exactly how access must be achieved. The rules do not specify particular standards that must be employed or particular technologies that must be used, which likely would vary across different products and services. Instead, they detail the operating characteristics and product capabilities necessary for accessibility. Because this approach has been effective in advancing the objectives of section 255 in other contexts, we conclude that it is appropriate to apply the current requirements to interconnected VoIP providers and equipment manufacturers.<sup>105</sup> The following reviews the Commission's current section 255 rules and requirements, which we now apply to interconnected VoIP providers and equipment manufacturers.

27. If "readily achievable," a covered interconnected VoIP *provider* must ensure that its service is accessible to and usable by individuals with disabilities. Whenever this requirement is not readily achievable, the provider must ensure that the service is compatible with existing peripheral devices or specialized CPE commonly used by individuals with disabilities to achieve access, if readily achievable. A covered provider also must ensure that information and documentation provided in connection with an interconnected VoIP service is accessible, if readily achievable.

28. If "readily achievable," a covered *manufacturer of equipment or CPE* that is specially designed to provide interconnected VoIP service must ensure that the equipment is designed, developed, and fabricated so that any portion of the equipment that is used for interconnected VoIP service is accessible to and usable by individuals with disabilities, if readily achievable. Whenever this requirement is not readily achievable, the manufacturer must ensure that the equipment is compatible with existing peripheral devices or specialized CPE commonly used by individuals with disabilities to achieve access, if readily achievable. A covered manufacturer also must ensure that information and documentation provided in connection with covered interconnected VoIP equipment or CPE is accessible, if readily achievable.

29. *All* covered entities subject to the rules and requirements adopted herein (*i.e.*, interconnected VoIP providers and interconnected VoIP equipment and CPE manufacturers) also are required to: (1) consider accessibility of covered equipment and services throughout their design, development, and fabrication, as early and consistently as possible; (2) where employee training is provided, consider accessibility issues in the development of such training; and (3) maintain records of the entity's

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<sup>102</sup> The rules we adopt today, which apply to interconnected VoIP providers and to manufacturers of specially designed VoIP equipment and CPE, are reasonably ancillary to our responsibilities under section 255 and under Title I of the Act for the additional reasons set forth in paragraph 17 *supra*.

<sup>103</sup> *Section 255 Order*, 16 FCC Rcd 6417.

<sup>104</sup> 47 C.F.R. Part 7 (applying disability access requirements, without modification, to providers of voicemail and interactive menu services and related equipment manufacturers).

<sup>105</sup> *Accord* Comments of the American Foundation for the Blind at 4 (May 28, 2004) (noting that accessibility problems faced by people who are blind or vision impaired are "strikingly similar" to those that section 255 already has attempted to address and urging Commission adoption of section 255's "carefully constructed basis for defining equipment and services and implementing accessibility"); Comments of the New Jersey Division of the Ratepayer Advocate at 26-28 (May 28, 2004).

accessibility efforts demonstrating compliance with section 255 that can be presented to the Commission in the event that consumers with disabilities file complaints.<sup>106</sup>

30. Some commenters suggest we convene a working group or advisory committee to make recommendations regarding interconnected VoIP-specific standards and requirements.<sup>107</sup> We decline to do so at this time. Once the rules and requirements adopted herein have taken effect, we will consider whether to convene a working group or advisory committee comprised of stakeholders to determine if standards or requirements beyond those provided here are needed. For example, to the extent that there are technical and operational problems concerning real-time text use over IP networks, it may be appropriate to convene a working group or advisory committee to examine this and other areas where additional or more specific standards or requirements may be needed.<sup>108</sup> We note that as we move from PSTN to VoIP, we need reliable, real-time text capability that is supported throughout the VoIP system so that people who rely on text and text intermixed with speech in order to converse can use the next generation phone system.<sup>109</sup> We further note that most of the VoIP-specific standards recommended by commenters regarding how providers and manufacturers must achieve accessibility, if readily achievable, will be addressed by the existing rules, to the extent that these rules focus on certain outcomes, as opposed to specifying exactly how access must be achieved.<sup>110</sup> Because the determination of what is readily achievable is entity specific, we do not adopt general standards applicable to all interconnected VoIP providers and manufacturers governing how entities must achieve accessibility, as was requested by various commenters.<sup>111</sup>

### 3. Designation of Agent for Service of Complaints and Inquiries

31. As in the *Section 255 Order*, we recognize the need to ensure that consumers can readily obtain information identifying the points of contact for manufacturers and service providers covered by these rules.<sup>112</sup> Accordingly, we require each covered manufacturer and interconnected VoIP provider to designate an agent for receipt and handling of accessibility complaints and inquiries, and to send this information to the Commission's Consumer & Governmental Affairs Bureau *via* email within thirty days after the effective date of the rules adopted herein.<sup>113</sup> All point of contact information (including name of designated agent, company name, mailing address, email address, telephone number, and facsimile

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<sup>106</sup> As in the *Section 255 Order*, we do not delineate specific documentation requirements for "readily achievable" analyses. We fully expect, however, that manufacturers and service providers, in the ordinary course of business, will maintain complete records of the specific actions taken to comply with the disability access requirements that can be filed with the Commission in the event consumers with disabilities file complaints.

<sup>107</sup> See, e.g., Comments of the National Association of State Utility Consumer Advocates at 64 (May 28, 2004) ("NASUCA has no recommendation at this time on specific compliance standards, but recommends that these standards be created through IP industry and disabilities working groups, through the use of access guidelines issued by the Architectural and Transportation Barriers Compliance Board and other disabilities compliance organizations, and through government-sponsored meetings such as the Commission's 'Solutions Summit' of May 7, 2004").

<sup>108</sup> See National Council on Disability, "The Need for Federal Legislation and Regulation Prohibiting Telecommunications and Information Services Discrimination," at 30 (December 19, 2006) (noting that the IP industry has not yet developed a consistent and reliable protocol for carrying real-time interactive text).

<sup>109</sup> See Letter from Karen Peltz Strauss, Rehabilitation Engineering Research Center on Telecommunications Access, to Marlene Dortch, FCC (dated May 23, 2007).

<sup>110</sup> See, e.g., Comments of the Rehabilitation Research Center on Telecommunications Access at ii (Aug. 15, 2005).

<sup>111</sup> See, e.g., Comments of Avaya at 13-17 (May 28, 2004) (listing potential accessibility barriers and opportunities associated with VoIP).

<sup>112</sup> This information may be needed by consumers who wish to obtain information from, or present disability related concerns or complaints to, a covered manufacturer or service provider.

<sup>113</sup> We note that this requirement is in addition to the requirement that providers annually complete and regularly update FCC Form 499-A, including maintaining accurate designated agent information in Block 2-B of that form.



number) should be emailed to [SECTION255\\_POC@fcc.gov](mailto:SECTION255_POC@fcc.gov). In identifying a point of contact, parties must clearly indicate whether the individual identified represents a covered manufacturer or a covered service provider. The Commission will add this information to a website currently maintained by the Consumer & Governmental Affairs Bureau on which contact information for manufacturers and service providers presently subject to the disability access requirements of section 255 appears.<sup>114</sup> We also strongly encourage manufacturers and interconnected VoIP providers to employ their own measures to inform consumers about how to contact the appropriate offices within their companies regarding accessibility barriers or concerns.

## **B. TRS Obligations of Interconnected VoIP Providers**

### **1. Application of Section 225 Requirements to Interconnected VoIP Providers**

32. For the reasons set forth below, we extend the section 225 requirements contained in our rules to providers of interconnected VoIP services. Section 225 directs the Commission to ensure that TRS is available, “to the extent possible and in the most efficient manner,” to persons with hearing or speech disabilities.<sup>115</sup> The statute further requires that TRS facilitate the ability of individuals with hearing or speech disabilities to engage in “communication by wire or radio” in a manner that is “functionally equivalent” to that of individuals who do not have such disabilities,<sup>116</sup> and requires each “common carrier providing telephone voice transmission services” to offer TRS.<sup>117</sup>

33. Consistent with our recent orders and with the disability access requirements adopted above, we apply the TRS requirements set forth in Subpart F of the Commission’s Part 64 rules to providers of “interconnected VoIP services.”<sup>118</sup> It is appropriate, in our view, to apply these requirements to interconnected VoIP services given that these services are increasingly used to replace analog voice service and because consumers reasonably perceive them as substitutes for analog voice service. Extending the TRS requirements to providers of interconnected VoIP services also ensures that providers of competing services are subject to comparable regulatory obligations.<sup>119</sup> Finally, extending these requirements to interconnected VoIP providers is appropriate inasmuch as interconnected VoIP providers benefit from their interconnection with the PSTN and from the expanded network-wide subscribership that is made possible by the TRS rules and requirements.<sup>120</sup>

34. We rely on our Title I ancillary jurisdiction to extend the TRS requirements in Subpart F to interconnected VoIP providers.<sup>121</sup> As noted above, ancillary jurisdiction may be employed, in the

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<sup>114</sup> See FCC Disabilities Issues Link Page at [http://www.fcc.gov/cgb/dro/section255\\_manu.html](http://www.fcc.gov/cgb/dro/section255_manu.html) (list of section 255 equipment manufacturers); FCC Section 255 Service Providers at [http://www.fcc.gov/cgb/dro/service\\_providers.html](http://www.fcc.gov/cgb/dro/service_providers.html) (list of section 255 service providers).

<sup>115</sup> 47 U.S.C. § 225(b)(1).

<sup>116</sup> 47 U.S.C. § 225(a)(3).

<sup>117</sup> 47 U.S.C. § 225(c).

<sup>118</sup> See 47 C.F.R. §§ 9.3, 54.5 (defining “interconnected VoIP service”); see also *VoIP 911 Order*, 20 FCC Rcd at 10257-58, para. 24; *2006 Interim Contribution Methodology Order*, 21 FCC Rcd at 7537, para. 36; *CPNI Order*, 2007 WL 983953, para. 54 n.170.

<sup>119</sup> *Accord* Comments of ITAA at 9-11 (May 28, 2004) (arguing that only VoIP services that are “POTS-equivalent” should be subject to “social regulation”).

<sup>120</sup> *Federal-State Joint Board on Universal Service, Smith Bagley, Inc. Petition for Waiver of Section 54.400(e) of the Commission’s Rules*, Memorandum Opinion and Order, 20 FCC Rcd 7701, 7707, para. 15 (March 30, 2005) (discussing how increased subscribership enhances the value of a communications network). TRS increases subscribership to the extent that it permits individuals with hearing or speech disabilities who otherwise would not be able to access communications services to do so.

<sup>121</sup> *Accord* Comments of SBC Communications at 104-112 (urging Commission to exercise ancillary authority to extend TRS obligations to interconnected VoIP providers).

Commission's discretion, when Title I of the Act gives the agency 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.”<sup>122</sup> In the previous discussion, we noted that the Act gives the Commission subject matter jurisdiction over “all interstate and foreign commerce in communication by wire or radio” and “all persons engaged within the United States in such communication” and found that interconnected VoIP services are covered by the statutory definitions of “wire” and “radio” communication.<sup>123</sup> Based on this analysis, we found that the Commission’s general grant of jurisdiction encompasses the regulation of interconnected VoIP services.<sup>124</sup>

35. We find that the TRS obligations adopted here are “reasonably ancillary” to the Commission's responsibility to ensure the availability of TRS under section 225(b)(1), and will give full effect to the purposes underlying section 225(b)(1), as enumerated in that section. Specifically, section 225(b)(1) imposes on the Commission a duty to ensure the availability of TRS in order to: (1) “carry out the purposes established under [section 1 of the Act];” (2) make available to “all” individuals in the United States a rapid, efficient nationwide communication service; and (3) “increase the utility of the telephone system” in the United States.<sup>125</sup> Extending the TRS requirements to interconnected VoIP providers will further the first two objectives articulated in section 225(b)(1) of making available to “all” persons a “rapid, efficient [nationwide] communication service.”<sup>126</sup> Moreover, the action we take here will promote the third objective of section 225(b)(1) to “increase the utility of the telephone system” by making possible increased access to the telephone system by TRS users.<sup>127</sup> In sum, we find that extending the TRS requirements to interconnected VoIP providers 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.

## 2. TRS Fund Contribution Obligation of Interconnected VoIP Providers

36. Among the TRS requirements described above, we require providers of interconnected VoIP services to contribute to the TRS Fund. We conclude that this action will help to ensure the availability of TRS by creating a broader-based and more stable TRS funding mechanism.<sup>128</sup> In adopting section 225, Congress specifically contemplated that costs “caused by” interstate TRS would be recovered from “all subscribers for every interstate service.”<sup>129</sup> As increasing numbers of consumers replace their traditional analog phone service with interconnected VoIP service,<sup>130</sup> we are concerned that fewer overall interstate

<sup>122</sup> *Southwestern Cable*, 392 U.S. at 177-78; *see also VoIP 911 Order*, 20 FCC Rcd at 10261-66, paras. 26-35.

<sup>123</sup> *See* para. 22 *supra*. *See also* 47 U.S.C. § 152(a); 47 U.S.C. § 151 (setting forth Commission's obligation to make available “to all the people of the United States...a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges...for the purpose of promoting safety of life and property through the use of wire and radio communication”).

<sup>124</sup> *See* para. 22 *supra*.

<sup>125</sup> 47 U.S.C. § 225(b)(1).

<sup>126</sup> 47 U.S.C. § 225(b)(1); 47 U.S.C. § 151.

<sup>127</sup> 47 U.S.C. § 225(b)(1). As noted above, the Commission also relied on its ancillary jurisdiction in requiring interconnected VoIP providers to handle emergency 911 calls. *See* paras. 22-24 *supra*.

<sup>128</sup> *Accord* Comments of National Consumers League at 6 (May 28, 2004) (VoIP providers should be required to contribute to TRS because, without their participation, there will be fewer resources to make access to relay services available); Comments of Telecommunications for the Deaf at 8-9 (May 28, 2004) (regardless of regulatory classification, VoIP providers must contribute to TRS since failure to do so will threaten continued viability of TRS Fund); *but see* Comments of Nuvio at 10 (May 28, 2004) (opposing extension of TRS or other common carrier mandates to VoIP providers on basis that market forces will result in improved disability access).

<sup>129</sup> 47 U.S.C. § 225(d)(3)(B).

<sup>130</sup> *See 2006 Interim Contribution Methodology Order*, 21 FCC Rcd at 7536, para. 34. *See also VoIP Service Revenue Doubles in North America, Europe, Asia Pacific in 2005*, Infonetics Press Release (July 26, 2006) at

telecommunications revenues will be available to support TRS.<sup>131</sup> At the same time, growing popularity of more expensive forms of TRS, such as VRS, has increased overall Fund requirements in recent years, placing upward pressure on the contribution factor that is used to calculate carrier assessments and payments into the Fund.<sup>132</sup> Increasing demand for VRS is likely to continue as Internet usage expands and consumers become more familiar with the service. If these trends continue as anticipated, providers of interstate telecommunications will be forced to shoulder an increasing share of the TRS funding obligation as a percentage of their interstate end-user revenues. This situation is untenable both for individual contributors and for the Fund as a whole. Therefore, consistent with our statutory obligation to ensure the availability of TRS “to the extent possible and in the most efficient manner” to persons with hearing or speech disabilities, we extend the contribution requirements to interconnected VoIP providers.<sup>133</sup>

37. In addition to relying on our Title I ancillary authority, as discussed above, we also rely on the express authority of section 225(d)(3)(B) of the Act, which specifically addresses funding of TRS. That provision directs the Commission to issue regulations that “shall generally provide that costs caused by interstate relay services shall be recovered *from all subscribers for every interstate service.*”<sup>134</sup> As noted previously, the Commission has found that an interconnected VoIP provider provides “interstate” telecommunications because its “jurisdictionally mixed” services carry both interstate and intrastate calls.<sup>135</sup> Following from the Commission’s determination that interconnected VoIP services are properly classified as interstate, section 225(d)(3)(B) supports the extension of the TRS contribution requirements to providers of these services.<sup>136</sup>

38. Section 64.604(c)(5)(iii)(A) of the Commission’s rules requires that every carrier “providing interstate telecommunications services shall contribute to the TRS Fund on the basis of interstate end-user telecommunications revenues as described herein.”<sup>137</sup> The amount of each carrier’s contribution is the product of the carrier’s interstate end-user telecommunications revenues and a contribution factor

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<http://www.infonetics.com/resources/purple.shtml?ms06.vip.nr.shtml> (projecting that between 2005 and 2009, VoIP service revenues in North America will increase from \$2.6 billion to \$13.3 billion); *March Broadband Buzz*, Bear Stearns (March 12, 2007); *Cable Telephone Subscriptions Growth Accelerates*, IP Media Monitor (March 12, 2007) at <http://ipmediamonitor.com/>.

<sup>131</sup> We note that the interstate revenue base, which stood at a high of approximately \$81 billion for the 2003-2004 Fund year, has dropped to approximately \$77 billion for the 2007-2008 Fund year. See *Relay Services’ Reimbursement Rate, Contribution Factor & Fund Size History* (prepared by the TRS Fund Administrator) at [http://www.neca.org/images/RELAYRATESHISTORY\\_REVISIED\\_08\\_21\\_06.pdf](http://www.neca.org/images/RELAYRATESHISTORY_REVISIED_08_21_06.pdf); see also *Interstate Telecommunications Relay Services Fund Payment Formula and Fund Size Estimate*, CC Docket 03-123, Report, at 3 (filed by the TRS Fund Administrator May 1, 2007).

<sup>132</sup> See *Relay Services’ Reimbursement Rate, Contribution Factor & Fund Size History* at [http://www.neca.org/images/RELAYRATESHISTORY\\_REVISIED\\_08\\_21\\_06.pdf](http://www.neca.org/images/RELAYRATESHISTORY_REVISIED_08_21_06.pdf). Since 2000, the TRS Fund has grown from approximately \$60 million to over \$400 million, largely due to the rapid growth in the use of VRS.

<sup>133</sup> 47 U.S.C. § 225(b)(1).

<sup>134</sup> 47 U.S.C. § 225(d)(3)(B) (emphasis added).

<sup>135</sup> *Vonage Order*, 19 FCC Rcd at 22413, para. 18.

<sup>136</sup> While we recognize that interconnected VoIP services are not the only IP-enabled services that may be characterized as “interstate,” the word “generally” in section 225(d)(3)(B) leads us to conclude that Congress intended to give the Commission a measure of discretion in identifying entities to which the requirement should apply. See 47 U.S.C. § 225(d)(3)(B) (directing the Commission to issue regulations that “shall *generally* provide that costs caused by interstate relay services shall be recovered from all subscribers for every interstate service”) (emphasis added). At a minimum, it is well settled that the Commission, in issuing an order addressing a particular problem, need not address all aspects of the problem simultaneously. See, e.g., *Brand X*, 547 U.S. at 1001-02.

<sup>137</sup> 47 C.F.R. § 64.604(c)(5)(iii)(A).

determined annually by the Commission.<sup>138</sup> These carriers are required to file with the Universal Service Administrative Corporation (USAC)<sup>139</sup> each year a completed Telecommunications Reporting Worksheet (FCC Form 499-A).<sup>140</sup> The data reported by each carrier on FCC Form 499-A is used to calculate the carrier's contribution to the TRS Fund, the Universal Service Fund, and the cost recovery mechanisms for numbering administration and long-term number portability.<sup>141</sup>

39. We note that interconnected VoIP providers (except those that qualify for the *de minimis* or other exemptions) currently report their annual historic interstate end-user telecommunications revenue information for purposes of the universal service contribution requirements on FCC Form 499-A.<sup>142</sup> In the *2006 Interim Contribution Methodology Order*, the Commission recognized that some interconnected VoIP providers may have difficulty complying with the reporting requirement because they do not currently have the ability to identify whether customer calls are interstate.<sup>143</sup> As a result, the Commission established an interim safe harbor for interconnected VoIP services, reflected as an estimate of the percentage of interconnected VoIP revenues attributable to interstate telecommunications.<sup>144</sup> In light of evidence in the record of extensive interstate use of interconnected VoIP services, the Commission determined that the closest analogue to this service was "wireline toll service," which "similarly offers interstate, intrastate toll, and international services."<sup>145</sup> Consequently, the Commission set the interim safe harbor for interconnected VoIP services at 64.9 percent, representing the average percentage of interstate revenues that wireline toll providers have reported to the Commission.<sup>146</sup> The Commission held, however, that if the safe harbor percentage overstates an interconnected VoIP provider's actual interstate revenues, the provider may instead contribute to the USF on the basis of actual revenue allocations or by conducting a traffic study.<sup>147</sup>

40. To ensure that interconnected VoIP providers' contributions for the TRS Fund are allocated properly, interconnected VoIP providers should include in their annual FCC Form 499-A filing, historical

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<sup>138</sup> 47 C.F.R. § 64.604(c)(5)(iii)(B). Each subject carrier is required to contribute to the TRS Fund a minimum of \$25 per year. *Id.*

<sup>139</sup> USAC serves as the Revenue Data Collection Agent for the universal service and TRS funds, as well as for the support mechanisms for the North American Number Plan and local number portability administration.

<sup>140</sup> See Telecommunications Reporting Worksheet, FCC Form 499-A (2007) at <http://www.fcc.gov/formpage.html>.

<sup>141</sup> See Instructions to the Telecommunications Reporting Worksheet, FCC Form 499-A (2007), at 1.

<sup>142</sup> See *2006 Interim Contribution Methodology Order*, 21 FCC Rcd at 7544-47, paras. 50-62 (discussing revenue reporting issues and requirements applicable to interconnected VoIP providers' USF contribution obligation).

<sup>143</sup> See *id.*, 21 FCC Rcd at 7546, para. 56.

<sup>144</sup> See *id.*, 21 FCC Rcd at 7544-45, para. 53.

<sup>145</sup> See *id.*, 21 FCC Rcd at 7545, para. 53.

<sup>146</sup> See *id.* At the same time, the Commission sought comment on whether to eliminate or modify this interim safe harbor. *Id.*, 21 FCC Rcd at 7551, para. 69. We note that in the recent *Vonage Holdings Corp.* case, the court of appeals affirmed the portion of the Commission's *2006 Interim Contribution Methodology Order* in which the Commission had analogized VoIP to wireline toll service for purposes of setting the presumptive percentage of VoIP revenues that are generated interstate and internationally. *Id.*, 2007 WL 1574611, at \*\*8-9.

<sup>147</sup> See *id.*, 21 FCC Rcd at 7545, para. 54. The Commission's 2006 order required interconnected VoIP providers planning to use traffic studies for purposes of calculating their interstate revenues to obtain prior Commission approval of "any traffic study on which an interconnected VoIP provider proposes to rely." *Id.*, 21 FCC Rcd at 7547, para. 57. In *Vonage Holdings Corp.*, the court of appeals vacated the portion of the Commission's *2006 Interim Contribution Methodology Order* in which the Commission had required interconnected VoIP providers to obtain pre-approval of VoIP traffic studies. *Id.*, 2007 WL 1574611, at \*10. In particular, the court held that the Commission had not adequately explained how its determination to apply a pre-approval requirement to interconnected VoIP services but not to wireless services was consistent with the statutory directive that USF contributions be made on "an equitable and nondiscriminatory basis." *Id.* (quoting 47 U.S.C. § 254(d)).

revenue information for the relevant Fund year.<sup>148</sup> The Commission will revise FCC Form 499-A at a later date, consistent with the rules and policies outlined in this *Order*.<sup>149</sup> Interconnected VoIP providers, however, should familiarize themselves with the TRS-specific portions of FCC Form 499-A and the accompanying instructions in preparation for this filing.<sup>150</sup> Contributions by each interconnected VoIP provider to the TRS and universal service funding mechanisms will be calculated by the respective fund administrator on the basis of any end-user revenues that the provider may derive from providing interstate interconnected VoIP services.<sup>151</sup> An interconnected VoIP provider may report its interstate end-user revenues in FCC Form 499-A by using actual revenues, using a traffic study, or using the interim safe harbor percentage adopted in the *2006 Interim Contribution Methodology Order*.<sup>152</sup> The contribution obligations adopted here will commence upon the effective date of the TRS rule revisions adopted herein. We anticipate that interconnected VoIP providers will begin making TRS contributions on a pro-rated basis in the latter half of calendar year 2007 for the 2007-2008 TRS Fund Year. The TRS Fund Administrator will bill interconnected VoIP providers on a pro-rated basis, based on the end-user revenue data reported on the FCC Form 499-A that is filed with USAC.

41. Finally, we delegate authority to the Commission's Wireline Competition Bureau, in consultation with the Consumer & Governmental Affairs Bureau, to make any revisions to the FCC Form 499-A or its instructions that may be necessary to effectuate the purposes and directives set forth herein.

### 3. 711 Abbreviated Dialing Requirements of Interconnected VoIP Providers

42. As part of interconnected VoIP providers' obligations under our section 225 rules, we require providers of such services, in addition to common carriers providing telephone voice transmission services, to offer 711 abbreviated dialing for access to relay services.<sup>153</sup> In the *711 Order*, the Commission adopted 711 abbreviated dialing requirements for "common carriers" that provide voice transmission services in order to enable TRS users "to initiate a TRS call from any telephone, anywhere in the United States," by dialing 711.<sup>154</sup> We similarly find that abbreviated 711 dialing requirements for interconnected VoIP providers are needed to ensure that TRS calls can be made from any telephone,

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<sup>148</sup> We note that, although interconnected VoIP providers also file the FCC Form 499-Q in connection with the Commission's USF contribution requirements, this form is not required for purposes of the Commission's TRS Fund contribution requirements.

<sup>149</sup> See *Federal-State Joint Board on Universal Service*, CC Docket Nos. 96-45, 98-171, 90-571, 92-237, 99-200, 95-116, 98-170, NSD File No. L-00-72, Report and Order and Second Further Notice of Proposed Rulemaking, 17 FCC Rcd 24952, 24972, n.103 (2002); see also *2006 Interim Contribution Methodology Order*, 21 FCC Rcd at 7548-49, paras. 60-61.

<sup>150</sup> FCC Form 499-A and its instructions are located on the Commission's form page at <http://www.fcc.gov/formpage.html>, and on the Universal Service Administrative Company's (USAC's) form page at <http://www.usac.org/fund-administration/forms/default.aspx>.

<sup>151</sup> FCC Form 499-A and Instructions to FCC Form 499-A (2007).

<sup>152</sup> In light of the recent decision in *Vonage Holdings Corp.*, 2007 WL 1574611, at \*10, interconnected VoIP providers that elect to rely upon a traffic study for this purpose need not obtain prior Commission approval of such study at this time. See n. 147 *supra*.

<sup>153</sup> 47 C.F.R. § 64.603.

<sup>154</sup> *The Use of N11 Codes and Other Abbreviated Dialing Arrangements*, CC Docket No. 92-105, Second Report and Order, 15 FCC Rcd 15188, 15191, para. 3 (Aug. 9, 2000) (*711 Order*); see also 47 C.F.R. § 64.603 ("each common carrier providing telephone voice transmission services shall provide, not later than October 1, 2001, access via the 711 dialing code to all relay services as a toll free call"); 47 C.F.R. § 64.601(1) (defining "711" as "[t]he abbreviated dialing code for accessing all types of relay services anywhere in the United States"). The Commission adopted 711 dialing access so that TRS users could initiate a call, anywhere in the United States, without having to remember and dial a 7 or 10-digit toll free number, and without having to obtain different numbers to access local TRS providers when traveling from state to state. *711 Order*, 15 FCC Rcd at 15191, para. 3.

anywhere in the United States, and that such calls will be properly routed to the appropriate relay center.<sup>155</sup> In particular, to the extent that interconnected VoIP providers currently are not legally obligated to support 711 calls placed by TRS users, we fear that 711 dialed calls will simply be dropped instead of routing them to the appropriate relay center. Thus, as more consumers give up their analog phone service for interconnected VoIP service upon the belief that the latter represents a substitute for their existing phone service, we are concerned that, absent regulatory intervention, TRS users, including voice telephone users initiating a TRS call, will be unable to readily access the appropriate relay center.

43. In adopting the 711 abbreviated dialing requirements for TRS in the *711 Order*, the Commission permitted covered entities to “select the most economical and efficient means of implementing 711 access, based on their network architecture.”<sup>156</sup> We conclude that the same technical and operational flexibility should be extended to interconnected VoIP providers. For this reason, we do not mandate any particular technology for implementing 711 access to TRS. This approach will allow interconnected VoIP providers to choose solutions that avoid or minimize operational concerns as they prepare for 711 access. Finally, consistent with the Commission’s TRS rules, we require interconnected VoIP providers to conduct ongoing education and outreach programs that publicize the availability of 711 access to TRS in a manner reasonably designed to reach the largest number of consumers possible.<sup>157</sup>

#### **IV. PROCEDURAL MATTERS**

##### **A. Paperwork Reduction Act**

44. 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.

45. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. 3506(c)(4), we seek specific comment on how we might “further reduce the information collection burden for small business concerns with fewer than 25 employees.”

46. In this present document, we have assessed the effects of imposing disability access requirements on interconnected VoIP providers and manufacturers, and of imposing TRS contribution requirements on interconnected VoIP providers, and find that there may be an increased administrative burden on businesses with fewer than 25 employees. We have taken steps to minimize the information collection burden for small business concerns, including those with fewer than 25 employees. For example, although we require covered entities to maintain records of their accessibility efforts that can be presented to the Commission to demonstrate compliance, we do not delineate specific documentation or certification requirements for “readily achievable” analyses. In addition, by adopting general performance criteria, as opposed to accessibility standards or performance measurements specifying exactly how access must be achieved, our rules provide small entities flexibility in determining how best to manage their compliance with these rules. Moreover, by adopting the “readily achievable” standard that currently applies to telecommunications service providers and manufacturers, covered interconnected VoIP providers and manufacturers are required to render their services or products accessible only if

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<sup>155</sup> *See generally 711 Order*, 15 FCC Rcd 15196, para. 13.

<sup>156</sup> *711 Order*, 15 FCC Rcd at 15200, para. 22.

<sup>157</sup> *See 711 Order*, 15 FCC Rcd at 15217-18, paras. 61-64 (addressing 711 outreach).



doing so is “easily accomplishable and able to be carried out without much difficulty or expense.” Finally, because the information interconnected VoIP providers currently provide on the Telecommunications Reporting Worksheet (FCC Form 499-A) for purposes of the USF reporting requirements also will be used to determine these entities’ TRS contribution, there will be no increased reporting burden on small businesses. These measures should substantially alleviate any burdens on businesses with fewer than 25 employees.

#### **B. Congressional Review Act**

47. The Commission will send a copy of this Report and Order in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *see* 5 U.S.C. § 801(a)(1)(A).

#### **C. Accessible Formats**

48. 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](mailto:fcc504@fcc.gov) or call the Consumer & Governmental Affairs Bureau at (202) 418-0530 (voice) or (202) 418-0432 (TTY). This Report and Order can also be downloaded in Word and Portable Document Format (PDF) at <http://www.fcc.gov/cgb/policy>.

#### **D. Regulatory Flexibility Analysis**

49. Pursuant to the Regulatory Flexibility Act of 1980, as amended,<sup>158</sup> the Commission has prepared a Final Regulatory Flexibility Analysis (FRFA) of the possible significant economic impact on small entities of the policies and rules addressed in this document. The FRFA is set forth in Appendix C.

### **V. ORDERING CLAUSES**

50. Accordingly, IT IS ORDERED that, pursuant to the authority contained in sections 1-4, 225, 251, 255, and 303(r) of the Communications Act of 1934, as amended; 47 U.S.C. §§ 151-154, 225, 251, 255, and 303(r), the REPORT AND ORDER IS ADOPTED.

51. IT IS FURTHER ORDERED that, pursuant to the authority contained in sections 1-4, 225, 251, 255, and 303(r) of the Communications Act of 1934, as amended; 47 U.S.C. §§ 151-154, 225, 251, 255, and 303(r), Part 6 of the Commission’s rules, 47 C.F.R. Part 6 IS AMENDED, as set forth in Appendix B.

52. IT IS FURTHER ORDERED that, pursuant to the authority contained in sections 1-4, 225, 251, 255, and 303(r) of the Communications Act of 1934, as amended; 47 U.S.C. §§ 151-154, 225, 251, 255, and 303(r), Part 64 of the Commission’s rules, 47 C.F.R. Part 64, IS AMENDED, as set forth in Appendix B.

53. IT IS FURTHER ORDERED THAT the rules contained herein SHALL BECOME EFFECTIVE 60 days after publication of the Report and Order in the Federal Register, except for the rules containing information collection requirements subject to the Paperwork Reduction Act SHALL BECOME EFFECTIVE upon OMB approval of such requirements. The Commission will publish a document in the Federal Register announcing the effective date of these rules.

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

FEDERAL COMMUNICATIONS COMMISSION

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<sup>158</sup> 5 U.S.C. §§ 601 *et seq.*

Marlene H. Dortch  
Secretary



## APPENDIX A

## List of Commenters

## Commenters in WC Docket No. 04-36

<u>Comments</u>	<u>Abbreviation</u>
8X8, Inc.	8X8
AARP	AARP
ACN Communications Services, Inc.	CAN
Ad Hoc Telecommunications Users Committee	Ad Hoc
Alcatel North America	Alcatel
Alliance for Public Technology	APT
America's Rural Consortium	ARC
American Foundation for the Blind	AFB
American Public Communications Council	APCC
Amherst, Massachusetts Cable Advisory Committee	Amherst CAC
Arizona Corporation Commission	Arizona Commission
Artic Slope Telephone Association Cooperative, Inc. Cellular Mobile Systems of St. Cloud, LLC d/b/a Cellular 2000 Comanche County Telephone, Inc. DeKalb Telephone Cooperative, Inc. d/b/a DTC Communications Grand River Mutual Telephone Corporation Interstate 35 Telephone Company KanOkla Telephone Association, Inc. Siskiyou Telephone Company Uintah Basin Telecommunications Association, Inc. Vermont Telephone Company, Inc. Wheat State Telephone, Inc.	Artic Slope <i>et al.</i>
Association for Communications Technology Professionals in Higher Education	ACUTA
Association for Local Telecommunications Services	ALTS
Association of Public-Safety Communications Officials- International, Inc.	APCO
AT&T Corp.	AT&T
Attorney General of the State of New York	New York Attorney General
Avaya, Inc.	Avaya
BellSouth Corporation	BellSouth
Bend Broadband Cebridge Connections, Inc. Insight Communications Company, Inc. Susquehanna Communication	Bend Broadband <i>et al.</i>
Boulder Regional Emergency Telephone Service Authority	BRETSA
BT Americas Inc.	BTA
Cablevision Systems Corp.	Cablevision
Callipso Corporation	Callipso
Cbeyond Communications, LLC GlobalCom, Inc.	Cbeyond <i>et al.</i>

MPower Communications, Corp.	
CenturyTel, Inc.	CenturyTel
Charter Communications	Charter
Cheyenne River Sioux Tribe Telephone Authority	Cheyenne Telephone Authority
Cisco Systems, Inc.	Cisco
Citizens Utility Board	CUB
City and County of San Francisco	San Francisco
City of New York	New York City
Comcast Corporation	Comcast
Communication Service for the Deaf, Inc.	CSD
Communications Workers of America	CWA
CompTel/ASCENT	CompTel
Computer & Communications Industry Association	CCIA
Computing Technology Industry Association	CompTIA
Consumer Electronics Association	CEA
Covad Communications	Covad
Cox Communications, Inc.	Cox
CTIA-The Wireless Association	CTIA
Department of Homeland Security	DHS
DialPad Communication, Inc. ICG Communications, Inc. Qovia, Inc. VoicePulse, Inc.	Dialpad <i>et al.</i>
DJE Teleconsulting, LLC	DJE
Donald Clark Jackson	Jackson
EarthLink, Inc.	EarthLink
EDUCAUSE	EDUCAUSE
Electronic Frontier Foundation	EFF
Enterprise Communications Association	ECA
Federation for Economically Rational Utility Policy	FERUP
Francois D. Menard	Menard
Frontier and Citizens Telephone Companies	Frontier/Citizens
General Communications, Inc.	GCI
Global Crossing North America, Inc.	Global Crossing
GVNW Consulting, Inc.	GVNW
ICORE, Inc.	ICORE
IEEE-USA	IEEE-USA
Illinois Commerce Commission	Illinois Commerce Commission
Inclusive Technologies	Inclusive Technologies
Independent Telephone & Telecommunications Alliance	ITTA
Information Technology Association of America	ITAA
Information Technology Industry Council	ITIC
Interstate Telcom Consulting, Inc.	ITCI
Ionary Consulting	Ionary
Iowa Utilities Board	Iowa Commission
King County E911 Program	King County
Level 3 Communications LLC	Level 3
Lucent Technologies Inc.	Lucent Technologies
Maine Public Utilities Commissioners	Maine Commissioners
MCI	MCI

Microsoft Corporation	Microsoft
Minnesota Public Utilities Commission	Minnesota Commission
Montana Public Service Commission	Montana Commission
Motorola, Inc.	Motorola
National Association of Regulatory Utility Commission	NARUC
National Association of State Utility Consumer Advocates	NASUCA
National Association of Telecommunications Officers and Advisors National League of Cities National Association of Counties U.S. Conference of Mayors National Association of Towns and Townships Texas Coalition of Cities for Utility Issues Washington Association of Telecommunications Officers and Advisors Greater Metro Telecommunications Consortium Mr. Hood Cable Regulatory Commission Metropolitan Washington Council of Governments Rainier Communications Commission City of Philadelphia City of Tacoma, Washington Montgomery County, Maryland	NATOA <i>et al.</i>
National Cable & Telecommunications Association	NCTA
National Consumers League	NCL
National Emergency Number Association	NENA
National Exchange Carrier Association, Inc.	NECA
National Governors Association	NGA
National Grange	National Grange
National Telecommunications Cooperative Association	NTCA
Nebraska Public Service Commission	Nebraska Commission
Nebraska Rural Independent Companies	Nebraska Rural Independent Companies
Net2Phone, Inc.	Net2Phone
New Jersey Board of Public Utilities	New Jersey Commission
New Jersey Division of the Ratepayer Advocate	New Jersey Ratepayer Advocate
New York State Department of Public Service	New York Commission
NexVortex, Inc.	nexVortex
Nortel Networks	Nortel
Nuvio Corporation	Nuvio
Office of Advocacy, U.S. Small Business Administration	SBA
Office of the Attorney General of Texas	Texas Attorney General
Office of the People's Counsel for the District of Columbia	D.C. Counsel
Ohio Public Utilities Commission	Ohio Commission
Omnitor	Omnitor
Organization for the Promotion and Advancement of Small Telecommunications Companies	OPASTCO
Pac-West Telecomm, Inc.	Pac-West
People of the State of California and the California Public Utilities Commission	California Commission
Public Service Commission of the State of Missouri	Missouri Commission
Pulver.com	Pulver.com

Qwest Communications International Inc.	Qwest
Rehabilitation Engineering Research Center on Telecommunications Access	RERCTA
Rural Independent Competitive Alliance	RICA
SBC Communications, Inc.	SBC
Self Help for Hard of Hearing People	SHHHP
Skype, Inc.	Skype
Sonic.net, Inc.	Sonic.net
SPI Solutions, Inc.	SPI Solutions
Spokane County 911 Communications	Spokane County 911
Sprint Corporation	Sprint
TCA, Inc. – Telecom Consulting Associates	TCA
Telecommunications for the Deaf, Inc	TDI
Telecommunications Industry Association	TIA
Tellme Networks, Inc	Tellme Networks
Tennessee Regulatory Authority	TRA
Texas Coalition of Cities for Utility Issues	TCCFUI
Texas Commission on State Emergency Communications.	TCSEC
Texas Department of Information Resources	Texas DIR
Time Warner Inc.	Time Warner
Time Warner Telecom	TWTC
TracFone Wireless, Inc.	TracFone
UniPoint Enhanced Services Inc. d/b/a PointOne	PointOne
United States Conference of Catholic Bishops Alliance for Community Media Appalachian People's Actions Coalition Center for Digital Democracy Consumer Action Edgemont Neighborhood Coalition Migrant Legal Action Program	USCCB <i>et al.</i>
United States Department of Justice	DOJ
United States Telecom Association	USTA
United Telecom Council The United Power Line Council	UTC <i>et al.</i>
USA Datanet Corporation	USAD Datanet
Utah Division of Public Utilities	Utah Commission
Valor Telecommunications of Texas, L.P. and Iowa Telecommunications Services, Inc.	Valor <i>et al.</i>
VeriSign, Inc.	VeriSign
Verizon Telephone Company	Verizon
Vermont Public Service Board	Vermont
Virgin Mobile USA, LLC	Virgin Mobile
Virginia State Corporation Commission	Virginia Commission
Voice on the Net Coalition	VON Coalition
Vonage Holdings Corp	Vonage
Western Telecommunications Alliance	WTA
WilTel Communications, LLC	WilTel
Wisconsin Electric Power Company Wisconsin Gas	Wisconsin Electric <i>et al.</i>
Yellow Pages Integrated Media Association	YPIMA

Z-Tel Communications, Inc.	Z-Tel
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**Reply Commenters in WC Docket No. 04-36**

<b>Reply Comments</b>	<b>Abbreviation</b>
8X8, Inc.	8X8
Ad Hoc Telecom Manufacturer Coalition	Ad Hoc Telecom Manufacturers Coalition
Ad Hoc Telecommunications Users Committee	Ad Hoc
Adam D. Thierer, Director of Telecommunications Studies, Cato Institute	Thierer
Alcatel North America	Alcatel
Alliance for Public Technology et al.	APT <i>et al.</i>
American Cable Association	ACA
American Electric Power Service Corporation Duke Energy Corporation Xcel Energy Inc.	American Electric Power <i>et al.</i>
Association for Local Telecommunications Services	ALTS
AT&T Corp.	AT&T
Avaya Inc.	Avaya
BellSouth Corporation	BellSouth
Broadband Service Providers Association	BSPA
Cablevision Systems Corp.	Cablevision
Callipso Corporation	Callipso
Central Station Alarm Association	CSAA
Cingular Wireless LLC	Cingular
Cisco Systems, Inc.	Cisco
City and County of San Francisco	San Francisco
Comcast Corporation	Comcast
CompTel/Ascent	CompTel
Consumer Electronics Association	CEA
Consumer Federation of America Consumers Union	CFA <i>et al.</i>
Covad Communications	Covad
CTC Communications Corp.	CTS
CTIA-The Wireless Association	CTIA
Department of Defense	DoD
Donald Clark Jackson	Jackson
EarthLink, Inc.	EarthLink
Educause	Educause
Enterprise Communications Association	ECA
Ericsson Inc.	Ericsson
Florida Public Service Commission	Florida Commission
Francois D. Menard	Menard
General Communication, Inc.	GCI
Global Crossing North America, Inc.	Global Crossing
Independent Telephone & Telecommunications Alliance	ITTA
Information Technology Association of America	Information Technology Association of America
Intergovernmental Advisory Committee	IAC
Intrado Inc.	Intrado
Knology, Inc.	Knology

Level 3 Communications LLC	Level 3
Massachusetts Office of the Attorney General	Massachusetts Attorney General
MCI	MCI
Montana Public Service Commission	Montana Commission
Motorola, Inc.	Motorola
National Association of State Utility Consumer Advocates	NASUCA
National Association of Telecommunications Officers and Advisors National League of Cities National Association of Counties U.S. Conference of Mayors National Association of Towns and Townships Texas Coalition of Cities for Utility Issues Washington Association of Telecommunications Officers and Advisors Greater Metro Telecommunications Consortium Mr. Hood Cable Regulatory Commission Metropolitan Washington Council of Governments Rainier Communications Commission City of Philadelphia City of Tacoma, Washington Montgomery County, Maryland	NATOA <i>et al.</i>
National Cable & Telecommunications Association	NCTA
National Emergency Number Association	NENA
National Exchange Carrier Association, Inc.	NECA
Nebraska Public Service Commission	Nebraska Commission
Nebraska Rural Independent Companies	Nebraska Rural Independent Companies
Net2Phone, Inc.	Net2Phone
New Jersey Division of the Ratepayer Advocate	New Jersey Ratepayer Advocate
New York State Department of Public Service	New York Commission
Nextel Communications, Inc.	Nextel
Nuvio Corporation	Nuvio
Office of the People's Counsel for the District of Columbia	D.C. Counsel
Organization for the Promotion and Advancement of Small Telecommunications Companies	OPASTCO
Pac-West Telecomm, Inc.	Pac-West
Pennsylvania Public Utility Commission	Pennsylvania Commission
Public Service Commission of Wisconsin	Wisconsin Commission
Qwest Communications International Inc.	Qwest
Regulatory Studies Program (RSP) of the Mercatus Center at George Mason University	Mercatus Center
Rehabilitation Engineering Research Center on Telecommunications Access	RERCTA
RNKL, Inc. d/b/a RNK Telecom	RNK
Rural Independent Competitive Alliance	RICA
SBC Communications Inc.	SBC
Skype, Inc.	Skype
Southern Communications Services, Inc. d/b/a Southern LINC	Southern LINC
Sprint Corporation	Sprint

Telecommunications Industry Association	TIA
Tellme Networks, Inc	Tellme Networks
Texas Statewide Telephone Cooperative, Inc.	Texas Statewide Telephone Cooperative
Time Warner Telecom, Inc.	Time Warner Telecom
T-Mobile USA, Inc.	T-Mobile
TracFone Wireless, Inc.	TracFone
United States Conference of Catholic Bishops Alliance for Community Media Appalachian Peoples' Action Coalition Center for Digital Democracy Consumer Action Edgemont Neighborhood Coalition Migrant Legal Action Program	USCCB <i>et al.</i>
United States Department of Justice	DOJ
United States Telecom Association	USTA
USA Datanet Corporation	USA Datanet
Utah Division of Public Utilities	Utah Commission
VeriSign, Inc.	VeriSign
Verizon Telephone Companies	Verizon
Voice on the Net Coalition	VON Coalition
Wisconsin Department of Public Instruction	Wisconsin Department of Public Instruction

**Commenters in WT Docket No. 96-198 (Further NOI)**

<b><u>Comments</u></b>	<b><u>Abbreviation</u></b>
American Foundation for the Blind	AFB
AT&T Corp.	AT&T
Bell Atlantic	
Commercial Internet eXchange Association	CIX
Dana Mulvany	
GTE	
iBasis, Inc.	iBasis, Inc.
Inclusive Technologies	
James R. Fruchterman	
Level 3 Communications, LLC	Level 3
MCI WorldCom, Inc.	MCI WorldCom
Microsoft Corporation	Microsoft
Multi-Media Telecommunications Association	MMTA
National Association of the Deaf	NAD
Ronald Vickery	
Self Help for Hard of Hearing People	SHHH
Telecommunications for the Deaf, Inc.	TDI
Teleglobe Communications Corporation	TCC
TRACE/Gallaudet	TRACE
Voice On the Net Coalition	VON Coalition

## Reply Commenters in WT Docket No. 96-198 (Further NOI)

<b><u>Reply Comments</u></b>	<b><u>Abbreviation</u></b>
American Foundation for the Blind	AFB
AT&T Corp.	AT&T
Bell Atlantic	
Competitive Telecommunications Association	CTA
Information Technology Industry Council	ITI
Level 3 Communications, LLC	Level 3
MCI WorldCom, Inc.	MCI WorldCom
Motorola, Inc.	Motorola
National Association of the Deaf	NAD
Net2Phone, Inc.	Net2Phone
Telecommunications Industry Association	TIA
Voice On the Net Coalition	VON Coalition



**APPENDIX B****Final Rule Changes****Part 6 of Title 47 of the Code of Federal Regulations is amended as follows:**

1. The authority citation for Part 6 is amended to read as follows:

47 U.S.C. 151-154, 251, 255, and 303(r).

2. Section 6.1 of Subpart A is amended by revising paragraph (c) and adding paragraphs (d) and (e) to read as follows:

**Subpart A. Scope--Who Must Comply with These Rules?****§ 6.1 Applicability.**

The rules in this part apply to:

\*\*\*\*\*

(d) Any provider of interconnected Voice over Internet Protocol (VoIP) service, as that term is defined in section 9.3 of these rules; and

(e) Any manufacturer of equipment or customer premises equipment that is specially designed to provide interconnected VoIP service and that is needed for the effective use of an interconnected VoIP service.

3. Section 6.3 of Subpart B is amended by revising paragraph (c); redesignating paragraphs (e)-(k) as paragraphs (f)-(l), respectively; adding a new paragraph (e); and revising redesignated paragraphs (j) and (k) to read as follows:

**Subpart B. Definitions****§ 6.3 Definitions.**

\*\*\*\*\*

(c) The term customer premises equipment shall mean equipment employed on the premises of a person (other than a carrier) to originate, route, or terminate telecommunications. For purposes of this Part, the term customer premises equipment shall include equipment employed on the premises of a person (other than a carrier) that is specially designed to provide interconnected VoIP service and that is needed for the effective use of an interconnected VoIP service.

\*\*\*\*\*

(e) The term interconnected VoIP service shall have the same meaning as in section 9.3 of this chapter.

\*\*\*\*\*

(j) The term telecommunications equipment shall mean equipment, other than customer premises equipment, used by a carrier to provide telecommunications services, and includes software integral to

such equipment (including upgrades). For purposes of this Part, the term telecommunications equipment shall include equipment that is specially designed to provide interconnected VoIP service and that is needed for the effective use of an interconnected VoIP service as that term is defined in section 9.3 of this chapter.

(k) The term telecommunications service shall mean the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used. For purposes of this Part, the term telecommunications service shall include “interconnected VoIP service” as that term is defined in section 9.3 of this chapter.

\*\*\*\*\*

**Subpart F of Part 64 of Title 47 of the Code of Federal Regulations is amended as follows:**

6. An authority citation for Subpart F is added to read as follows:

47 U.S.C. 151-154, 225, 255, and 303(r).

7. Section 64.601 of Subpart F is amended by revising the section heading; redesignating the definitional section as paragraph (a); redesignating the definitions in subparagraphs (9)-(18) as subparagraphs (10)-(19), respectively; adding a new definition in subparagraph (9); and adding a new paragraph (b) to read as follows:

**§ 64.601 Definitions and Provisions of General Applicability.**

(a) As used in this subpart, the following definitions apply:

\*\*\*\*\*

(9) Interconnected VoIP service. An interconnected Voice over Internet protocol (VoIP) service is a service that: (i) Enables real-time, two-way voice communications; (ii) Requires a broadband connection from the user's location; (iii) Requires Internet protocol-compatible customer premises equipment (CPE); and (iv) Permits users generally to receive calls that originate on the public switched telephone network and to terminate calls to the public switched telephone network.

\*\*\*\*\*

(b) For purposes of this subpart, all regulations and requirements applicable to common carriers shall also be applicable to providers of interconnected VoIP service.

## APPENDIX C

## Final Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),<sup>159</sup> an Initial Regulatory Flexibility Analysis (IRFA) was included in the *IP-Enabled Services NPRM* in WC Docket 04-36.<sup>160</sup> The Commission sought written public comment on the proposals in the notice, including comment on the IRFA.<sup>161</sup> The Commission received three comments on the IRFA, which are discussed below. This Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.<sup>162</sup>

**A. Need for, and Objectives of, the Rules**

2. Today's *Order* strengthens the Commission's disability access rules. [Section 255](#) of the Communications Act of 1934, as amended (the Act), requires telecommunications service providers and equipment manufacturers to render their services or equipment accessible to persons with disabilities, if readily achievable. This *Order* extends the disability access requirements that currently apply to telecommunications service providers and equipment manufacturers under section 255, to providers of interconnected VoIP services and to manufacturers of specially designed equipment used to provide those services. In addition, the *Order* extends the TRS requirements contained in the Commission's regulations, 47 C.F.R. §§ 64.601 *et seq.*, to providers of interconnected VoIP services. Among the TRS requirements extended to interconnected VoIP providers, the Commission requires such providers to contribute to the Interstate TRS Fund under the Commission's existing contribution rules,<sup>163</sup> and to offer 711 abbreviated dialing for access to relay services.<sup>164</sup> Together, these measures will ensure that, as more consumers migrate from traditional phone service to interconnected VoIP services, the disability access provisions mandated by Congress under sections 255 and 225 will apply to, and benefit users of, interconnected VoIP services and equipment.

**B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA**

3. *Comments Received in Response to the IP-Enabled Services NPRM.* In this section, we respond to comments filed in response to the IRFA.<sup>165</sup> To the extent we received comments raising general small business concerns during this proceeding, those comments have been addressed in the *Order*. We disagree with SBA and Menard that the Commission should postpone acting in this proceeding -- thereby postponing extending the application of the disability access and TRS contribution rules to interconnected VoIP providers -- and instead should reevaluate the economic impact and the compliance burdens on small entities and issue a further notice of proposed rulemaking in conjunction with a supplemental IRFA identifying and analyzing the economic impacts on small entities and less burdensome alternatives.<sup>166</sup> We believe the additional steps suggested by SBA and Menard are unnecessary because small entities already have received sufficient notice of the issues addressed in

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<sup>159</sup> See 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. §§ 601-12, 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).

<sup>160</sup> *IP-Enabled Services NPRM*, 19 FCC Rcd at 4917, para. 91 & Appendix A.

<sup>161</sup> *Id.*

<sup>162</sup> See 5 U.S.C. § 604.

<sup>163</sup> 47 C.F.R. § 64.604(c)(5)(iii)(A), (B).

<sup>164</sup> See 47 C.F.R. § 64.603.

<sup>165</sup> See Comments of SBA (May 28, 2004); Comments of Menard (May 28, 2004); Reply of Menard (July 15, 2004).

<sup>166</sup> See Comments of SBA at 2, 4, 6 (May 28, 2004); Comments of Menard at 2-5 (May 28, 2004); Reply of Menard at 4 (July 15, 2004).

today's *Order*.<sup>167</sup> We note that a number of small entities submitted comments in this proceeding. The Commission has considered the economic impact on small entities as well as ways to minimize the burdens imposed on those entities, and, to the extent feasible, has implemented those less burdensome alternatives.<sup>168</sup>

### C. Description and Estimate of the Number of Small Entities to Which Rules Will Apply

4. The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by the rules adopted herein.<sup>169</sup> The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”<sup>170</sup> In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.<sup>171</sup> 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).<sup>172</sup>

5. *Small Businesses*. Nationwide, there are a total of approximately 22.4 million small businesses, according to SBA data.<sup>173</sup>

6. *Small Organizations*. Nationwide, there are approximately 1.6 million small organizations.<sup>174</sup>

7. *Small Governmental Jurisdictions*. The term “small governmental jurisdiction” is defined generally as “governments of cities, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand.”<sup>175</sup> Census Bureau data for 2002 indicate that there were 87,525 local governmental jurisdictions in the United States.<sup>176</sup> We estimate that, of this total, 84,377 entities were “small governmental jurisdictions.”<sup>177</sup> Thus, we estimate that most governmental jurisdictions are

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<sup>167</sup> The *IP-Enabled Services NPRM* specifically sought comment on whether the disability access requirements should apply to providers of IP-enabled services, including VoIP services, and on whether the Commission should amend its TRS rules in light of increasing use of IP-enabled services. See *IP-Enabled Services NPRM*, 19 FCC Rcd at 4901-03, paras. 58-60. The Commission published a summary of the *NPRM* in the Federal Register. See [Regulatory Requirements for IP-Enabled Services, WC Docket No. 04-36, Notice of Proposed Rulemaking, 69 Fed. Reg. 16193-01 \(Mar. 29, 2004\)](#). In addition, as noted above, the *Section 255 NOI* sought comment on applying accessibility requirements to “IP telephony” and “computer-based equipment that replicates telecommunications functionality.” *Section 255 NOI*, 16 FCC Rcd at 6483-84, paras. 173-76.

<sup>168</sup> See section E of this Appendix.

<sup>169</sup> 5 U.S.C. §§ 603(b)(3), 604(a)(3).

<sup>170</sup> 5 U.S.C. § 601(6).

<sup>171</sup> 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 terms which are appropriate to the activities of the agency and publishes such definitions(s) in the Federal Register.”

<sup>172</sup> 15 U.S.C. § 632.

<sup>173</sup> See SBA, Programs and Services, SBA Pamphlet No. CO-0028, at page 40 (July 2002).

<sup>174</sup> Independent Sector, *The New Nonprofit Almanac & Desk Reference* (2002).

<sup>175</sup> 5 U.S.C. § 601(5).

<sup>176</sup> U.S. Census Bureau, *Statistical Abstract of the United States: 2006*, Section 8, page 272, Table 415.

<sup>177</sup> We assume that the villages, school districts, and special districts are small, and total 48,558. See U.S. Census Bureau, *Statistical Abstract of the United States: 2006*, section 8, page 273, Table 417. For 2002, Census Bureau data indicate that the total number of county, municipal, and township governments nationwide was 38,967, of which 35,819 were small. *Id.*

small.

## 1. Telecommunications Service Entities

### a. Wireline Carriers and Service Providers

8. We have included small incumbent local exchange carriers in this present RFA analysis. As noted above, a “small business” under the RFA is one that, *inter alia*, meets the pertinent small business size standard (*e.g.*, a telephone communications business having 1,500 or fewer employees), and “is not dominant in its field of operation.”<sup>178</sup> The SBA’s Office of Advocacy contends that, for RFA purposes, small incumbent local exchange carriers are not dominant in their field of operation because any such dominance is not “national” in scope.<sup>179</sup> We have therefore included small incumbent local exchange carriers in this RFA analysis, although we emphasize that this RFA action has no effect on Commission analyses and determinations in other, non-RFA contexts.

9. *Wired Telecommunications Carriers.* The SBA has developed a small business size standard for wireline firms within the broad economic census category, “Wired Telecommunications Carriers.”<sup>180</sup> Under this category, the SBA deems a wireline business to be small if it has 1,500 or fewer employees. Census Bureau data for 2002 show that there were 2,432 firms in this category that operated for the entire year.<sup>181</sup> Of this total, 2,395 firms had employment of 999 or fewer employees, and 37 firms had employment of 1,000 employees or more.<sup>182</sup> Thus, under this category and associated small business size standard, the majority of firms can be considered small.

10. *Incumbent Local Exchange Carriers (LECs).* Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent local exchange services. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.<sup>183</sup> According to Commission data,<sup>184</sup> 1,307 carriers have reported that they are engaged in the provision of incumbent local exchange services. Of these 1,307 carriers, an estimated 1,019 have 1,500 or fewer employees and 283 have more than 1,500 employees. Consequently, the Commission estimates that most providers of incumbent local exchange service are small businesses that may be affected by our action.

11. *Competitive Local Exchange Carriers, Competitive Access Providers (CAPs), “Shared-Tenant Service Providers,” and “Other Local Service Providers.”* Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.<sup>185</sup> According to Commission data,<sup>186</sup> 859 carriers have reported that they are engaged in the provision of either competitive access provider

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<sup>178</sup> 15 U.S.C. § 632.

<sup>179</sup> Letter from Jere W. Glover, Chief Counsel for Advocacy, SBA, to William E. Kennard, Chairman, FCC (May 27, 1999). The Small Business Act contains a definition of “small-business concern,” which the RFA incorporates into its own definition of “small business.” See 15 U.S.C. § 632(a) (Small Business Act); 5 U.S.C. § 601(3) (RFA). SBA regulations interpret “small business concern” to include the concept of dominance on a national basis. See 13 C.F.R. § 121.102(b).

<sup>180</sup> 13 C.F.R. § 121.201, NAICS code 517110.

<sup>181</sup> U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization,” Table 5, NAICS code 517110 (issued Nov. 2005).

<sup>182</sup> *Id.* 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 for firms with “1000 employees or more.”

<sup>183</sup> 13 C.F.R. § 121.201, NAICS code 517110.

<sup>184</sup> FCC, Wireline Competition Bureau, Industry Analysis and Technology Division, “Trends in Telephone Service” at Table 5.3, page 5-5 (Feb. 2007) (“Trends in Telephone Service”). This source uses data that are current as of October 20, 2005.

services or competitive local exchange carrier services. Of these 859 carriers, an estimated 741 have 1,500 or fewer employees and 118 have more than 1,500 employees. In addition, 16 carriers have reported that they are “Shared-Tenant Service Providers,” and all 16 are estimated to have 1,500 or fewer employees. In addition, 44 carriers have reported that they are “Other Local Service Providers.” Of the 44, an estimated 43 have 1,500 or fewer employees and one has more than 1,500 employees. Consequently, the Commission estimates that most providers of competitive local exchange service, competitive access providers, “Shared-Tenant Service Providers,” and “Other Local Service Providers” are small entities that may be affected by our action.

12. *Local Resellers.* The SBA has developed a small business size standard for the category of Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.<sup>187</sup> According to Commission data,<sup>188</sup> 184 carriers have reported that they are engaged in the provision of local resale services. Of these, an estimated 181 have 1,500 or fewer employees and three have more than 1,500 employees. Consequently, the Commission estimates that the majority of local resellers are small entities that may be affected by our action.

13. *Toll Resellers.* The SBA has developed a small business size standard for the category of Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.<sup>189</sup> According to Commission data,<sup>190</sup> 881 carriers have reported that they are engaged in the provision of toll resale services. Of these, an estimated 853 have 1,500 or fewer employees and 28 have more than 1,500 employees. Consequently, the Commission estimates that the majority of toll resellers are small entities that may be affected by our action.

14. *Payphone Service Providers (PSPs).* Neither the Commission nor the SBA has developed a small business size standard specifically for payphone services providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.<sup>191</sup> According to Commission data,<sup>192</sup> 657 carriers have reported that they are engaged in the provision of payphone services. Of these, an estimated 653 have 1,500 or fewer employees and four have more than 1,500 employees. Consequently, the Commission estimates that the majority of payphone service providers are small entities that may be affected by our action.

15. *Interexchange Carriers (IXCs).* Neither the Commission nor the SBA has developed a small business size standard specifically for providers of interexchange services. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.<sup>193</sup> According to Commission data,<sup>194</sup> 330 carriers have reported that they are engaged in the provision of interexchange service. Of these, an estimated 309 have 1,500 or fewer employees and 21 have more than 1,500 employees. Consequently, the Commission estimates that the majority of IXCs are small entities that may be affected by our action.

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<sup>185</sup> 13 C.F.R. § 121.201, NAICS code 517110 (changed from 513310 in Oct. 2002).

<sup>186</sup> “Trends in Telephone Service” at Table 5.3.

<sup>187</sup> 13 C.F.R. § 121.201, NAICS code 517310.

<sup>188</sup> “Trends in Telephone Service” at Table 5.3.

<sup>189</sup> 13 C.F.R. § 121.201, NAICS code 517310.

<sup>190</sup> “Trends in Telephone Service” at Table 5.3.

<sup>191</sup> 13 C.F.R. § 121.201, NAICS code 517110.

<sup>192</sup> “Trends in Telephone Service” at Table 5.3.

<sup>193</sup> 13 C.F.R. § 121.201, NAICS code 517110.

<sup>194</sup> “Trends in Telephone Service” at Table 5.3.

16. *Operator Service Providers (OSPs)*. Neither the Commission nor the SBA has developed a small business size standard specifically for operator service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.<sup>195</sup> According to Commission data,<sup>196</sup> 23 carriers have reported that they are engaged in the provision of operator services. Of these, an estimated 22 have 1,500 or fewer employees and one has more than 1,500 employees. Consequently, the Commission estimates that the majority of OSPs are small entities that may be affected by our action.

17. *Prepaid Calling Card Providers*. Neither the Commission nor the SBA has developed a small business size standard specifically for prepaid calling card providers. The appropriate size standard under SBA rules is for the category Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.<sup>197</sup> According to Commission data,<sup>198</sup> 104 carriers have reported that they are engaged in the provision of prepaid calling cards. Of these, 102 are estimated to have 1,500 or fewer employees and two have more than 1,500 employees. Consequently, the Commission estimates that all or the majority of prepaid calling card providers are small entities that may be affected by our action.

18. *800 and 800-Like Service Subscribers*.<sup>199</sup> Neither the Commission nor the SBA has developed a small business size standard specifically for 800 and 800-like service (“toll free”) subscribers. The appropriate size standard under SBA rules is for the category Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.<sup>200</sup> The most reliable source of information regarding the number of these service subscribers appears to be data the Commission collects on the 800, 888, and 877 numbers in use.<sup>201</sup> According to this source, as of the end of June, 2006, the number of 800 numbers assigned was 7,647,941, the number of 888 numbers assigned was 5,318,667, the number of 877 numbers assigned was 4,431,162, and the number of 866 numbers assigned was 6,008,976. We do not have data specifying the number of these subscribers that are not independently owned and operated or have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of toll free subscribers that would qualify as small businesses under the SBA size standard. Consequently, we estimate that there are approximately 7,647,941 small entity 800 subscribers, approximately 5,318,667 small entity 888 subscribers, approximately 4,431,162 small entity 877 subscribers, and approximately 6,008,976 small entity 866 subscribers.

#### **b. International Service Providers**

19. The Commission has not developed a small business size standard specifically for providers of international service. The appropriate size standards under SBA rules are for the two broad census categories of “Satellite Telecommunications” and “Other Telecommunications.” Under both categories, such a business is small if it has \$12.5 million or less in average annual receipts.<sup>202</sup>

20. The first category of Satellite Telecommunications “comprises establishments primarily engaged in providing point-to-point telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via

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<sup>195</sup> 13 C.F.R. § 121.201, NAICS code 517110.

<sup>196</sup> “Trends in Telephone Service” at Table 5.3.

<sup>197</sup> 13 C.F.R. § 121.201, NAICS code 517310.

<sup>198</sup> “Trends in Telephone Service” at Table 5.3.

<sup>199</sup> We include all toll-free number subscribers in this category, including those for 888 numbers.

<sup>200</sup> 13 C.F.R. § 121.201, NAICS code 517310.

<sup>201</sup> “Trends in Telephone Service” at Tables 18.4-18.7.

<sup>202</sup> 13 C.F.R. § 121.201, NAICS codes 517410 and 517910.

a system of satellites or reselling satellite telecommunications.”<sup>203</sup> For this category, Census Bureau data for 2002 show that there were a total of 371 firms that operated for the entire year.<sup>204</sup> Of this total, 307 firms had annual receipts of under \$10 million, and 26 firms had receipts of \$10 million to \$24,999,999.<sup>205</sup> Consequently, we estimate that the majority of Satellite Telecommunications firms are small entities that might be affected by our action.

21. The second category of Other Telecommunications “comprises establishments primarily engaged in (1) providing specialized telecommunications applications, such as satellite tracking, communications telemetry, and radar station operations; or (2) providing satellite terminal stations and associated facilities operationally connected with one or more terrestrial communications systems and capable of transmitting telecommunications to or receiving telecommunications from satellite systems.”<sup>206</sup> For this category, Census Bureau data for 2002 show that there were a total of 332 firms that operated for the entire year.<sup>207</sup> Of this total, 259 firms had annual receipts of under \$10 million and 15 firms had annual receipts of \$10 million to \$24,999,999.<sup>208</sup> Consequently, we estimate that the majority of Other Telecommunications firms are small entities that might be affected by our action.

### c. Wireless Telecommunications Service Providers

22. Below, for those services subject to auctions, we note that, as a general matter, the number of winning bidders that qualify as small businesses at the close of an auction does not necessarily represent the number of small businesses currently in service. Also, the Commission does not generally track subsequent business size unless, in the context of assignments or transfers, unjust enrichment issues are implicated.

23. *Wireless Service Providers.* The SBA has developed a small business size standard for wireless firms within the two broad economic census categories of “Paging”<sup>209</sup> and “Cellular and Other Wireless Telecommunications.”<sup>210</sup> Under both SBA categories, a wireless business is small if it has 1,500 or fewer employees. For the census category of Paging, Census Bureau data for 2002 show that there were 807 firms in this category that operated for the entire year.<sup>211</sup> Of this total, 804 firms had employment of 999 or fewer employees, and three firms had employment of 1,000 employees or more.<sup>212</sup> Thus, under this category and associated small business size standard, the majority of firms can be considered small. For the census category of Cellular and Other Wireless Telecommunications, Census Bureau data for 2002 show that there were 1,397 firms in this category that operated for the entire year.<sup>213</sup> Of this total, 1,378 firms had employment of 999 or fewer employees, and 19 firms had employment of

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<sup>203</sup> U.S. Census Bureau, “2002 NAICS Definitions: 517410 Satellite Telecommunications” ([www.census.gov](http://www.census.gov), visited Feb. 2006).

<sup>204</sup> U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” Table 4, NAICS code 517410 (issued Nov. 2005).

<sup>205</sup> *Id.* An additional 38 firms had annual receipts of \$25 million or more.

<sup>206</sup> U.S. Census Bureau, “2002 NAICS Definitions: 517910 Other Telecommunications” ([www.census.gov](http://www.census.gov), visited Feb. 2006).

<sup>207</sup> U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” Table 4, NAICS code 517910 (issued Nov. 2005).

<sup>208</sup> *Id.* An additional 14 firms had annual receipts of \$25 million or more.

<sup>209</sup> 13 C.F.R. § 121.201, NAICS code 517211.

<sup>210</sup> 13 C.F.R. § 121.201, NAICS code 517212.

<sup>211</sup> U.S. Census Bureau, 2002 Economic Census, Subject Series: “Information,” Table 5, Employment Size of Firms for the United States: 2002, NAICS code 517211 (issued November 2005).

<sup>212</sup> *Id.* 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 “1000 employees or more.”



1,000 employees or more.<sup>214</sup> Thus, under this second category and size standard, the majority of firms can, again, be considered small.

24. *Cellular Licensees.* The SBA has developed a small business size standard for wireless firms within the broad economic census category “Cellular and Other Wireless Telecommunications.”<sup>215</sup> Under this SBA category, a wireless business is small if it has 1,500 or fewer employees. For the census category of Cellular and Other Wireless Telecommunications, Census Bureau data for 2002 show that there were 1,397 firms in this category that operated for the entire year.<sup>216</sup> Of this total, 1,378 firms had employment of 999 or fewer employees, and 19 firms had employment of 1,000 employees or more.<sup>217</sup> Thus, under this category and size standard, the great majority of firms can be considered small. Also, according to Commission data, 432 carriers reported that they were engaged in the provision of cellular service, Personal Communications Service (PCS), or Specialized Mobile Radio (SMR) Telephony services, which are placed together in the data.<sup>218</sup> We have estimated that 221 of these are small, under the SBA small business size standard.<sup>219</sup>

25. *Common Carrier Paging.* The SBA has developed a small business size standard for wireless firms within the broad economic census category, “Cellular and Other Wireless Telecommunications.”<sup>220</sup> Under this SBA category, a wireless business is small if it has 1,500 or fewer employees. For the census category of Paging, Census Bureau data for 2002 show that there were 807 firms in this category that operated for the entire year.<sup>221</sup> Of this total, 804 firms had employment of 999 or fewer employees, and three firms had employment of 1,000 employees or more.<sup>222</sup> Thus, under this category and associated small business size standard, the majority of firms can be considered small. In the *Paging Third Report and Order*, we developed a small business size standard for “small businesses” and “very small businesses” for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.<sup>223</sup> A “small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$15 million for the preceding three years. Additionally, a “very small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$3 million for the preceding three years.<sup>224</sup> The SBA has approved these small business size standards.<sup>225</sup> An auction of Metropolitan

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<sup>213</sup> U.S. Census Bureau, 2002 Economic Census, Subject Series: “Information,” Table 5, Employment Size of Firms for the United States: 2002, NAICS code 517212 (issued November 2005).

<sup>214</sup> *Id.* 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 “1000 employees or more.”

<sup>215</sup> 13 C.F.R. § 121.201, NAICS code 517212.

<sup>216</sup> U.S. Census Bureau, 2002 Economic Census, Subject Series: “Information,” Table 5, Employment Size of Firms for the United States: 2002, NAICS code 517212 (issued November 2005).

<sup>217</sup> *Id.* 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 “1000 employees or more.”

<sup>218</sup> “Trends in Telephone Service” at Table 5.3.

<sup>219</sup> *Id.*

<sup>220</sup> 13 C.F.R. § 121.201, NAICS code 517212.

<sup>221</sup> U.S. Census Bureau, 2002 Economic Census, Subject Series: “Information,” Table 5, Employment Size of Firms for the United States: 2002, NAICS code 517211 (issued November 2005).

<sup>222</sup> *Id.* 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 “1000 employees or more.”

<sup>223</sup> *Amendment of Part 90 of the Commission’s Rules to Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service*, PR Docket No. 89-552, Third Report and Order and Fifth Notice of Proposed Rulemaking, 12 FCC Rcd 10943, 11068-70, paras. 291-295, 62 FR 16004 (Apr. 3, 1997).

Economic Area licenses commenced on February 24, 2000, and closed on March 2, 2000.<sup>226</sup> Of the 985 licenses auctioned, 440 were sold. Fifty-seven companies claiming small business status won. Also, according to Commission data, 375 carriers reported that they were engaged in the provision of paging and messaging services.<sup>227</sup> Of those, we estimate that 370 are small, under the SBA-approved small business size standard.<sup>228</sup>

26. *Wireless Communications Services*. This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses. The Commission established small business size standards for the wireless communications services (WCS) auction. A “small business” is an entity with average gross revenues of \$40 million for each of the three preceding years, and a “very small business” is an entity with average gross revenues of \$15 million for each of the three preceding years. The SBA has approved these small business size standards.<sup>229</sup> The Commission auctioned geographic area licenses in the WCS service. In the auction, there were seven winning bidders that qualified as “very small business” entities, and one that qualified as a “small business” entity.

27. *Wireless Telephony*. Wireless telephony includes cellular, personal communications services (PCS), and specialized mobile radio (SMR) telephony carriers. As noted earlier, the SBA has developed a small business size standard for “Cellular and Other Wireless Telecommunications” services.<sup>230</sup> Under that SBA small business size standard, a business is small if it has 1,500 or fewer employees.<sup>231</sup> According to Commission data, 432 carriers reported that they were engaged in the provision of cellular service, Personal Communications Service (PCS), or Specialized Mobile Radio (SMR) Telephony services, which are placed together in the data.<sup>232</sup> We have estimated that 221 of these are small, under the SBA small business size standard.<sup>233</sup>

28. *Broadband Personal Communications Service*. The broadband Personal Communications Service (PCS) spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission defined “small entity” for Blocks C and F as an entity that has average gross revenues of \$40 million or less in the three previous calendar years.<sup>234</sup> For Block F, an additional classification for “very small business” was added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years.<sup>235</sup> These standards defining “small entity” in the context of broadband PCS auctions

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<sup>224</sup> See Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC, from A. Alvarez, Administrator, SBA (Dec. 2, 1998) (SBA Dec. 2, 1998 Letter).

<sup>225</sup> *Revision of Part 22 and Part 90 of the Commission’s Rules to Facilitate Future Development of Paging Systems*, Memorandum Opinion and Order on Reconsideration and Third Report and Order, 14 FCC Rcd 10030, 10085-87, paras. 98-107 (1999).

<sup>226</sup> *Id.* at 10085, para. 98.

<sup>227</sup> “Trends in Telephone Service” at Table 5.3.

<sup>228</sup> *Id.*

<sup>229</sup> SBA Dec. 2, 1998 letter.

<sup>230</sup> 13 C.F.R. § 121.201, NAICS code 517212.

<sup>231</sup> *Id.*

<sup>232</sup> “Trends in Telephone Service” at Table 5.3.

<sup>233</sup> *Id.*

<sup>234</sup> See *Amendment of Parts 20 and 24 of the Commission’s Rules – Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap*, WT Docket No. 96-59, Report and Order, 11 FCC Rcd 7824, 61 FR 33859 (July 1, 1996) (*PCS Order*); see also 47 C.F.R. § 24.720(b).

<sup>235</sup> See *PCS Order*, 11 FCC Rcd 7824.

have been approved by the SBA.<sup>236</sup> No small businesses, within the SBA-approved small business size standards bid successfully for licenses in Blocks A and B. There were 90 winning bidders that qualified as small entities in the Block C auctions. A total of 93 small and very small business bidders won approximately 40 percent of the 1,479 licenses for Blocks D, E, and F.<sup>237</sup> On March 23, 1999, the Commission re-auctioned 347 C, D, E, and F Block licenses. There were 48 small business winning bidders. On January 26, 2001, the Commission completed the auction of 422 C and F Broadband PCS licenses in Auction No. 35. Of the 35 winning bidders in this auction, 29 qualified as “small” or “very small” businesses. Subsequent events, concerning Auction 35, including judicial and agency determinations, resulted in a total of 163 C and F Block licenses being available for grant.

29. *Narrowband Personal Communications Services.* To date, two auctions of narrowband personal communications services (PCS) licenses have been conducted. For purposes of the two auctions that have already been held, “small businesses” were entities with average gross revenues for the prior three calendar years of \$40 million or less. Through these auctions, the Commission has awarded a total of 41 licenses, out of which 11 were obtained by small businesses. To ensure meaningful participation of small business entities in future auctions, the Commission has adopted a two-tiered small business size standard in the *Narrowband PCS Second Report and Order*.<sup>238</sup> A “small business” is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$40 million. A “very small business” is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$15 million. The SBA has approved these small business size standards.<sup>239</sup> In the future, the Commission will auction 459 licenses to serve Metropolitan Trading Areas (MTAs) and 408 response channel licenses. There is also one megahertz of narrowband PCS spectrum that has been held in reserve and that the Commission has not yet decided to release for licensing. The Commission cannot predict accurately the number of licenses that will be awarded to small entities in future auctions. However, four of the 16 winning bidders in the two previous narrowband PCS auctions were small businesses, as that term was defined. The Commission assumes, for purposes of this analysis that a large portion of the remaining narrowband PCS licenses will be awarded to small entities. The Commission also assumes that at least some small businesses will acquire narrowband PCS licenses by means of the Commission’s partitioning and disaggregation rules.

30. *220 MHz Radio Service – Phase I Licensees.* The 220 MHz service has both Phase I and Phase II licenses. Phase I licensing was conducted by lotteries in 1992 and 1993. There are approximately 1,515 such non-nationwide licensees and four nationwide licensees currently authorized to operate in the 220 MHz band. The Commission has not developed a small business size standard for small entities specifically applicable to such incumbent 220 MHz Phase I licensees. To estimate the number of such licensees that are small businesses, we apply the small business size standard under the SBA rules applicable to “Cellular and Other Wireless Telecommunications” companies. This category provides that a small business is a wireless company employing no more than 1,500 persons.<sup>240</sup> For the census category of Cellular and Other Wireless Telecommunications, Census Bureau data for 2002 show

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<sup>236</sup> See, e.g., *Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, PP Docket No. 93-253, Fifth Report and Order, 9 FCC Rcd 5332, 59 FR 37566 (July 22, 1994).

<sup>237</sup> FCC News, *Broadband PCS, D, E and F Block Auction Closes*, No. 71744 (rel. Jan. 14, 1997); see also *Amendment of the Commission’s Rules Regarding Installment Payment Financing for Personal Communications Services (PCS) Licenses*, WT Docket No. 97-82, Second Report and Order, 12 FCC Rcd 16436, 62 FR 55348 (Oct. 24, 1997).

<sup>238</sup> *Amendment of the Commission’s Rules to Establish New Personal Communications Services, Narrowband PCS*, Docket No. ET 92-100, Docket No. PP 93-253, Second Report and Order and Second Further Notice of Proposed Rulemaking, 15 FCC Rcd 10456, 65 FR 35875 (June 6, 2000).

<sup>239</sup> See SBA Dec. 2, 1998 Letter.

<sup>240</sup> 13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

that there were 1,397 firms in this category that operated for the entire year.<sup>241</sup> Of this total, 1,378 firms had employment of 999 or fewer employees, and 19 firms had employment of 1,000 employees or more.<sup>242</sup> Thus, under this second category and size standard, the majority of firms can, again, be considered small. Assuming this general ratio continues in the context of Phase I 220 MHz licensees, the Commission estimates that nearly all such licensees are small businesses under the SBA's small business size standard.

31. *220 MHz Radio Service – Phase II Licensees.* The 220 MHz service has both Phase I and Phase II licenses. The Phase II 220 MHz service is a new service, and is subject to spectrum auctions. In the *220 MHz Third Report and Order*, we adopted a small business size standard for “small” and “very small” businesses for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.<sup>243</sup> This small business size standard indicates that a “small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$15 million for the preceding three years.<sup>244</sup> A “very small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues that do not exceed \$3 million for the preceding three years. The SBA has approved these small business size standards.<sup>245</sup> Auctions of Phase II licenses commenced on September 15, 1998, and closed on October 22, 1998.<sup>246</sup> In the first auction, 908 licenses were auctioned in three different-sized geographic areas: three nationwide licenses, 30 Regional Economic Area Group (EAG) Licenses, and 875 Economic Area (EA) Licenses. Of the 908 licenses auctioned, 693 were sold.<sup>247</sup> Thirty-nine small businesses won licenses in the first 220 MHz auction. The second auction included 225 licenses: 216 EA licenses and 9 EAG licenses. Fourteen companies claiming small business status won 158 licenses.<sup>248</sup>

32. *800 MHz and 900 MHz Specialized Mobile Radio Licenses.* The Commission awards “small entity” and “very small entity” bidding credits in auctions for Specialized Mobile Radio (SMR) geographic area licenses in the 800 MHz and 900 MHz bands to firms that had revenues of no more than \$15 million in each of the three previous calendar years, or that had revenues of no more than \$3 million in each of the previous calendar years, respectively.<sup>249</sup> These bidding credits apply to SMR providers in the 800 MHz and 900 MHz bands that either hold geographic area licenses or have obtained extended implementation authorizations. The Commission does not know how many firms provide 800 MHz or 900 MHz geographic area SMR service pursuant to extended implementation authorizations, nor how many of these providers have annual revenues of no more than \$15 million. One firm has over \$15 million in revenues. The Commission assumes, for purposes here, that all of the remaining existing extended implementation authorizations are held by small entities, as that term is defined by the SBA. The Commission has held auctions for geographic area licenses in the 800 MHz and 900 MHz SMR bands. There were 60 winning bidders that qualified as small or very small entities in the 900 MHz SMR auctions. Of the 1,020 licenses won in the 900 MHz auction, bidders qualifying as small or very small

<sup>241</sup> U.S. Census Bureau, 2002 Economic Census, Subject Series: “Information,” Table 5, Employment Size of Firms for the United States: 2002, NAICS code 517212 (issued November 2005).

<sup>242</sup> *Id.* 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 “1000 employees or more.”

<sup>243</sup> *220 MHz Third Report and Order*, 12 FCC Rcd 10943, 11068-70, paras. 291-295 (1997).

<sup>244</sup> *Id.* at 11068, para. 291.

<sup>245</sup> See Letter to D. Phythyon, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from A. Alvarez, Administrator, Small Business Administration (Jan. 6, 1998).

<sup>246</sup> See generally Public Notice, “220 MHz Service Auction Closes,” 14 FCC Rcd 605 (1998).

<sup>247</sup> See, e.g., Public Notice, “FCC Announces It is Prepared to Grant 654 Phase II 220 MHz Licenses After Final Payment is Made,” 14 FCC Rcd 1085 (1999).

<sup>248</sup> Public Notice, “Phase II 220 MHz Service Spectrum Auction Closes,” 14 FCC Rcd 11218 (1999).

<sup>249</sup> 47 C.F.R. § 90.814(b)(1).

entities won 263 licenses. In the 800 MHz auction, 38 of the 524 licenses won were won by small and very small entities.

33. *700 MHz Guard Band Licensees.* In the *700 MHz Guard Band Order*, we adopted a small business size standard for “small businesses” and “very small businesses” for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.<sup>250</sup> A “small business” as an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$15 million for the preceding three years. Additionally, a “very small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$3 million for the preceding three years. An auction of 52 Major Economic Area (MEA) licenses commenced on September 6, 2000, and closed on September 21, 2000.<sup>251</sup> Of the 104 licenses auctioned, 96 licenses were sold to nine bidders. Five of these bidders were small businesses that won a total of 26 licenses. A second auction of 700 MHz Guard Band licenses commenced on February 13, 2001 and closed on February 21, 2001. All eight of the licenses auctioned were sold to three bidders. One of these bidders was a small business that won a total of two licenses.<sup>252</sup>

34. *Rural Radiotelephone Service.* The Commission has not adopted a size standard for small businesses specific to the Rural Radiotelephone Service.<sup>253</sup> A significant subset of the Rural Radiotelephone Service is the Basic Exchange Telephone Radio System (BETRS).<sup>254</sup> The Commission uses the SBA’s small business size standard applicable to “Cellular and Other Wireless Telecommunications,” *i.e.*, an entity employing no more than 1,500 persons.<sup>255</sup> There are approximately 1,000 licensees in the Rural Radiotelephone Service, and the Commission estimates that there are 1,000 or fewer small entity licensees in the Rural Radiotelephone Service that may be affected by the rules and policies adopted herein.

35. *Air-Ground Radiotelephone Service.* The Commission has not adopted a small business size standard specific to the Air-Ground Radiotelephone Service.<sup>256</sup> We will use SBA’s small business size standard applicable to “Cellular and Other Wireless Telecommunications,” *i.e.*, an entity employing no more than 1,500 persons.<sup>257</sup> There are approximately 100 licensees in the Air-Ground Radiotelephone Service, and we estimate that almost all of them qualify as small under the SBA small business size standard.

36. *Aviation and Marine Radio Services.* Small businesses in the aviation and marine radio services use a very high frequency (VHF) marine or aircraft radio and, as appropriate, an emergency position-indicating radio beacon (and/or radar) or an emergency locator transmitter. The Commission has not developed a small business size standard specifically applicable to these small businesses. For purposes of this analysis, the Commission uses the SBA small business size standard for the category “Cellular and Other Telecommunications,” which is 1,500 or fewer employees.<sup>258</sup> Most applicants for recreational licenses are individuals. Approximately 581,000 ship station licensees and 131,000 aircraft station licensees operate domestically and are not subject to the radio carriage requirements of any statute

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<sup>250</sup> See *Service Rules for the 746-764 MHz Bands, and Revisions to Part 27 of the Commission’s Rules*, WT Docket No. 99-168, Second Report and Order, 65 FR 17599 (Apr. 4, 2000).

<sup>251</sup> See generally Public Notice, “220 MHz Service Auction Closes,” Report No. WT 98-36 (Oct. 23, 1998).

<sup>252</sup> Public Notice, “700 MHz Guard Band Auction Closes,” DA 01-478 (rel. Feb. 22, 2001).

<sup>253</sup> The service is defined in section 22.99 of the Commission’s Rules, 47 C.F.R. § 22.99.

<sup>254</sup> BETRS is defined in sections 22.757 and 22.759 of the Commission’s Rules, 47 C.F.R. §§ 22.757 and 22.759.

<sup>255</sup> 13 C.F.R. § 121.201, NAICS code 517212.

<sup>256</sup> The service is defined in section 22.99 of the Commission’s Rules, 47 C.F.R. § 22.99.

<sup>257</sup> 13 C.F.R. § 121.201, NAICS code 517212.

<sup>258</sup> 13 C.F.R. § 121.201, NAICS code 517212.

or treaty. For purposes of our evaluations in this analysis, we estimate that there are up to approximately 712,000 licensees that are small businesses (or individuals) under the SBA standard. In addition, between December 3, 1998 and December 14, 1998, the Commission held an auction of 42 VHF Public Coast licenses in the 157.1875-157.4500 MHz (ship transmit) and 161.775-162.0125 MHz (coast transmit) bands. For purposes of the auction, the Commission defined a “small” business as an entity that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed \$15 million dollars. In addition, a “very small” business is one that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed \$3 million dollars.<sup>259</sup> There are approximately 10,672 licensees in the Marine Coast Service, and the Commission estimates that almost all of them qualify as “small” businesses under the above special small business size standards.

37. *Offshore Radiotelephone Service.* This service operates on several UHF television broadcast channels that are not used for television broadcasting in the coastal areas of states bordering the Gulf of Mexico.<sup>260</sup> There are presently approximately 55 licensees in this service. We are unable to estimate at this time the number of licensees that would qualify as small under the SBA’s small business size standard for “Cellular and Other Wireless Telecommunications” services.<sup>261</sup> Under that SBA small business size standard, a business is small if it has 1,500 or fewer employees.<sup>262</sup>

38. *39 GHz Service.* The Commission created a special small business size standard for 39 GHz licenses – an entity that has average gross revenues of \$40 million or less in the three previous calendar years.<sup>263</sup> An additional size standard for “very small business” is: an entity that, together with affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years.<sup>264</sup> The SBA has approved these small business size standards.<sup>265</sup> The auction of the 2,173 39 GHz licenses began on April 12, 2000 and closed on May 8, 2000. The 18 bidders who claimed small business status won 849 licenses.

39. *Wireless Cable Systems.* Wireless cable systems use 2 GHz band frequencies of the Broadband Radio Service (“BRS”), formerly Multipoint Distribution Service (“MDS”),<sup>266</sup> and the Educational Broadband Service (“EBS”), formerly Instructional Television Fixed Service (“ITFS”),<sup>267</sup> to

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<sup>259</sup> *Amendment of the Commission’s Rules Concerning Maritime Communications*, PR Docket No. 92-257, Third Report and Order and Memorandum Opinion and Order, 13 FCC Rcd 19853 (1998).

<sup>260</sup> This service is governed by Subpart I of Part 22 of the Commission’s rules. See 47 C.F.R. §§ 22.1001-22.1037.

<sup>261</sup> 13 C.F.R. § 121.201, NAICS code 517212.

<sup>262</sup> *Id.*

<sup>263</sup> See *Amendment of the Commission’s Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands*, ET Docket No. 95-183, Report and Order, 63 Fed. Reg. 6079 (Feb. 6, 1998).

<sup>264</sup> *Id.*

<sup>265</sup> See Letter to Kathleen O’Brien Ham, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC, from Aida Alvarez, Administrator, SBA (Feb. 4, 1998).

<sup>266</sup> MDS, also known as Multichannel Multipoint Distribution Service (“MMDS”), is regulated by Part 21 of the Commission’s rules; see 47 C.F.R. Part 21, subpart K; and has been renamed the Broadband Radio Service (BRS); see *Amendment of Parts 1, 21, 73, 74 and 101 of the Commission’s Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands; Part 1 of the Commission’s Rules - Further Competitive Bidding Procedures; Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and the Instructional Television Fixed Service Amendment of Parts 21 and 74 to Engage in Fixed Two-Way Transmissions; Amendment of Parts 21 and 74 of the Commission’s Rules With Regard to Licensing in the Multipoint Distribution Service and in the Instructional Television Fixed Service for the Gulf of Mexico*, 19 FCC Rcd 14165 (2004) (*MDS/ITFS Order*).

<sup>267</sup> ITFS systems are regulated by Part 74 of the Commission’s rules; see 47 C.F.R. Part 74, subpart I. ITFS, an educational service, has been renamed the Educational Broadband Service (EBS); see *MDS/ITFS Order*, 19 FCC

transmit video programming and provide broadband services to residential subscribers.<sup>268</sup> These services were originally designed for the delivery of multichannel video programming, similar to that of traditional cable systems, but over the past several years licensees have focused their operations instead on providing two-way high-speed Internet access services.<sup>269</sup> We estimate that the number of wireless cable subscribers is approximately 100,000, as of March 2005. Local Multipoint Distribution Service (“LMDS”) is a fixed broadband point-to-multipoint microwave service that provides for two-way video telecommunications.<sup>270</sup> As described below, the SBA small business size standard for the broad census category of Cable and Other Program Distribution, which consists of such entities generating \$13.5 million or less in annual receipts, appears applicable to MDS, ITFS and LMDS.<sup>271</sup> Other standards also apply, as described.

40. The Commission has defined small MDS (now BRS) and LMDS entities in the context of Commission license auctions. In the 1996 MDS auction,<sup>272</sup> the Commission defined a small business as an entity that had annual average gross revenues of less than \$40 million in the previous three calendar years.<sup>273</sup> This definition of a small entity in the context of MDS auctions has been approved by the SBA.<sup>274</sup> In the MDS auction, 67 bidders won 493 licenses. Of the 67 auction winners, 61 claimed status as a small business. At this time, the Commission estimates that of the 61 small business MDS auction winners, 48 remain small business licensees. In addition to the 48 small businesses that hold BTA authorizations, there are approximately 392 incumbent MDS licensees that have gross revenues that are not more than \$40 million and are thus considered small entities.<sup>275</sup> MDS licensees and wireless cable operators that did not receive their licenses as a result of the MDS auction fall under the SBA small business size standard for Cable and Other Program Distribution. Information available to us indicates that there are approximately 850 of these licensees and operators that do not generate revenue in excess of \$13.5 million annually. Therefore, we estimate that there are approximately 850 small entity MDS (or BRS) providers, as defined by the SBA and the Commission’s auction rules.

41. Educational institutions are included in this analysis as small entities; however, the Commission has not created a specific small business size standard for ITFS (now EBS).<sup>276</sup> We estimate that there are currently 2,032 ITFS (or EBS) licensees, and all but 100 of the licenses are held by educational institutions. Thus, we estimate that at least 1,932 ITFS licensees are small entities.

42. In the 1998 and 1999 LMDS auctions,<sup>277</sup> the Commission defined a small business as an Rcd 14165. ITFS licensees, however, are permitted to lease spectrum for MDS operation.

<sup>268</sup> See *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Eleventh Annual Report*, 20 FCC Rcd 2507, 2565, para. 131 (2006) (“2006 Cable Competition Report”).

<sup>269</sup> *Id.*

<sup>270</sup> See *Local Multipoint Distribution Service*, 12 FCC Rcd 12545 (1997).

<sup>271</sup> 13 C.F.R. § 121.201, NAICS code 517510.

<sup>272</sup> MDS Auction No. 6 began on November 13, 1995, and closed on March 28, 1996 (67 bidders won 493 licenses).

<sup>273</sup> 47 C.F.R. § 21.961(b)(1).

<sup>274</sup> See *ITFS Order*, 10 FCC Rcd at 9589.

<sup>275</sup> 47 U.S.C. § 309(j). Hundreds of stations were licensed to incumbent MDS licensees prior to implementation of Section 309(j) of the Communications Act of 1934, 47 U.S.C. § 309(j). For these pre-auction licenses, the applicable standard is SBA’s small business size standards for “other telecommunications” (annual receipts of \$13.5 million or less). See 13 C.F.R. § 121.201, NAICS code 517910.

<sup>276</sup> In addition, the term “small entity” under SBREFA applies to small organizations (nonprofits) and to small governmental jurisdictions (cities, counties, towns, townships, villages, school districts, and special districts with populations of less than 50,000). 5 U.S.C. §§ 601(4)-(6). We do not collect annual revenue data on ITFS licensees.

<sup>277</sup> The Commission has held two LMDS auctions: Auction 17 and Auction 23. Auction No. 17, the first LMDS auction, began on February 18, 1998, and closed on March 25, 1998. (104 bidders won 864 licenses.) Auction No. 23, the LMDS re-auction, began on April 27, 1999, and closed on May 12, 1999. (40 bidders won 161 licenses.)

entity that has annual average gross revenues of less than \$40 million in the previous three calendar years.<sup>278</sup> Moreover, the Commission added an additional classification for a “very small business,” which was defined as an entity that had annual average gross revenues of less than \$15 million in the previous three calendar years.<sup>279</sup> These definitions of “small business” and “very small business” in the context of the LMDS auctions have been approved by the SBA.<sup>280</sup> In the first LMDS auction, 104 bidders won 864 licenses. Of the 104 auction winners, 93 claimed status as small or very small businesses. In the LMDS re-auction, 40 bidders won 161 licenses. Based on this information, we believe that the number of small LMDS licenses will include the 93 winning bidders in the first auction and the 40 winning bidders in the re-auction, for a total of 133 small entity LMDS providers as defined by the SBA and the Commission’s auction rules.

43. *Local Multipoint Distribution Service.* Local Multipoint Distribution Service (LMDS) is a fixed broadband point-to-multipoint microwave service that provides for two-way video telecommunications.<sup>281</sup> The auction of the 1,030 Local Multipoint Distribution Service (LMDS) licenses began on February 18, 1998 and closed on March 25, 1998. The Commission established a small business size standard for LMDS licenses as an entity that has average gross revenues of less than \$40 million in the three previous calendar years.<sup>282</sup> An additional small business size standard for “very small business” was added as an entity that, together with its affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years.<sup>283</sup> The SBA has approved these small business size standards in the context of LMDS auctions.<sup>284</sup> There were 93 winning bidders that qualified as small entities in the LMDS auctions. A total of 93 small and very small business bidders won approximately 277 A Block licenses and 387 B Block licenses. On March 27, 1999, the Commission re-auctioned 161 licenses; there were 40 winning bidders. Based on this information, we conclude that the maximum number of small LMDS licensees consists of the 93 winning bidders in the first auction and the 40 winning bidders in the re-auction, for a total of 133 small entity LMDS providers.

44. *218-219 MHz Service.* The first auction of 218-219 MHz spectrum resulted in 170 entities winning licenses for 594 Metropolitan Statistical Area (MSA) licenses. Of the 594 licenses, 557 were won by entities qualifying as a small business. For that auction, the small business size standard was an entity that, together with its affiliates, has no more than a \$6 million net worth and, after federal income taxes (excluding any carry over losses), has no more than \$2 million in annual profits each year for the previous two years.<sup>285</sup> In the *218-219 MHz Report and Order and Memorandum Opinion and Order*, we established a small business size standard for a “small business” as an entity that, together with its affiliates and persons or entities that hold interests in such an entity and their affiliates, has average annual gross revenues not to exceed \$15 million for the preceding three years.<sup>286</sup> A “very small business” is defined as an entity that, together with its affiliates and persons or entities that hold interests in such an

<sup>278</sup> See *LMDS Order*, 12 FCC Rcd at 12545.

<sup>279</sup> *Id.*

<sup>280</sup> See Letter to Daniel Phythyon, Chief, Wireless Telecommunications Bureau (FCC) from A. Alvarez, Administrator, SBA (January 6, 1998).

<sup>281</sup> See *Local Multipoint Distribution Service*, Second Report and Order, 12 FCC Rcd 12545 (1997).

<sup>282</sup> *Id.*

<sup>283</sup> See *id.*

<sup>284</sup> See Letter to Dan Phythyon, Chief, Wireless Telecommunications Bureau, FCC, from Aida Alvarez, Administrator, SBA (Jan. 6, 1998).

<sup>285</sup> *Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, PP Docket No. 93-253, Fourth Report and Order, 59 Fed. Reg. 24947 (May 13, 1994).

<sup>286</sup> *Amendment of Part 95 of the Commission’s Rules to Provide Regulatory Flexibility in the 218-219 MHz Service*, WT Docket No. 98-169, Report and Order and Memorandum Opinion and Order, 64 Fed. Reg. 59656 (Nov. 3, 1999).



entity and its affiliates, has average annual gross revenues not to exceed \$3 million for the preceding three years.<sup>287</sup> These special small business size standards will be used, as appropriate, in future auctions of 218-219 MHz spectrum.

45. *24 GHz – Incumbent Licensees.* This analysis may affect incumbent licensees who were relocated to the 24 GHz band from the 18 GHz band, and applicants who wish to provide services in the 24 GHz band. The applicable SBA small business size standard is that of “Cellular and Other Wireless Telecommunications” companies. This category provides that such a company is small if it employs no more than 1,500 persons.<sup>288</sup> For the census category of Cellular and Other Wireless Telecommunications, Census Bureau data for 2002 show that there were 1,397 firms in this category that operated for the entire year.<sup>289</sup> Of this total, 1,378 firms had employment of 999 or fewer employees, and 19 firms had employment of 1,000 employees or more.<sup>290</sup> Thus, under this second category and size standard, the majority of firms can, again, be considered small. These broader census data notwithstanding, we believe that there are only two licensees in the 24 GHz band that were relocated from the 18 GHz band, Teligent<sup>291</sup> and TRW, Inc. It is our understanding that Teligent and its related companies have less than 1,500 employees, though this may change in the future. TRW is not a small entity. Thus, only one incumbent licensee in the 24 GHz band is a small business entity.

46. *24 GHz – Future Licensees.* With respect to new applicants in the 24 GHz band, the small business size standard for “small business” is an entity that, together with controlling interests and affiliates, has average annual gross revenues for the three preceding years not in excess of \$15 million.<sup>292</sup> “Very small business” in the 24 GHz band is an entity that, together with controlling interests and affiliates, has average gross revenues not exceeding \$3 million for the preceding three years.<sup>293</sup> The SBA has approved these small business size standards.<sup>294</sup> These size standards will apply to the future auction, if held.

## 2. Cable and OVS Operators

47. *Cable and Other Program Distribution.* The Census Bureau defines this category as follows: “This industry comprises establishments primarily engaged as third-party distribution systems for broadcast programming. The establishments of this industry deliver visual, aural, or textual programming received from cable networks, local television stations, or radio networks to consumers via cable or direct-to-home satellite systems on a subscription or fee basis. These establishments do not generally originate programming material.”<sup>295</sup> The SBA has developed a small business size standard for Cable and

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<sup>287</sup> *Amendment of Part 95 of the Commission’s Rules to Provide Regulatory Flexibility in the 218-219 MHz Service*, WT Docket No. 98-169, Report and Order and Memorandum Opinion and Order, 64 Fed. Reg. 59656 (Nov. 3, 1999).

<sup>288</sup> 13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

<sup>289</sup> U.S. Census Bureau, 2002 Economic Census, Subject Series: “Information,” Table 5, Employment Size of Firms for the United States: 2002, NAICS code 517212 (issued November 2005).

<sup>290</sup> *Id.* 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 “1000 employees or more.”

<sup>291</sup> Teligent acquired the DEMS licenses of FirstMark, the only licensee other than TRW in the 24 GHz band whose license has been modified to require relocation to the 24 GHz band.

<sup>292</sup> *Amendments to Parts 1,2, 87 and 101 of the Commission’s Rules to License Fixed Services at 24 GHz*, Report and Order, 15 FCC Rcd 16934, 16967 (2000); *see also* 47 C.F.R. § 101.538(a)(2).

<sup>293</sup> *Amendments to Parts 1,2, 87 and 101 of the Commission’s Rules to License Fixed Services at 24 GHz*, Report and Order, 15 FCC Rcd 16934, 16967 (2000); *see also* 47 C.F.R. § 101.538(a)(1).

<sup>294</sup> *See* Letter to Margaret W. Wiener, Deputy Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC, from Gary M. Jackson, Assistant Administrator, SBA (July 28, 2000).

Other Program Distribution, which is: all such firms having \$13.5 million or less in annual receipts.<sup>296</sup> According to Census Bureau data for 2002, there were a total of 1,191 firms in this category that operated for the entire year.<sup>297</sup> Of this total, 1,087 firms had annual receipts of under \$10 million, and 43 firms had receipts of \$10 million or more but less than \$25 million.<sup>298</sup> Thus, under this size standard, the majority of firms can be considered small.

48. *Cable Companies and Systems.* The Commission has also developed its own small business size standards, for the purpose of cable rate regulation. Under the Commission's rules, a "small cable company" is one serving 400,000 or fewer subscribers, nationwide.<sup>299</sup> Industry data indicate that, of 1,076 cable operators nationwide, all but eleven are small under this size standard.<sup>300</sup> In addition, under the Commission's rules, a "small system" is a cable system serving 15,000 or fewer subscribers.<sup>301</sup> Industry data indicate that, of 7,208 systems nationwide, 6,139 systems have under 10,000 subscribers, and an additional 379 systems have 10,000-19,999 subscribers.<sup>302</sup> Thus, under this second size standard, most cable systems are small.

49. *Cable System Operators.* The Communications Act of 1934, as amended, also contains a size standard for small cable system operators, which is "a cable operator that, directly or through an affiliate, serves in the aggregate fewer than 1 percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed \$250,000,000."<sup>303</sup> The Commission has determined that an operator serving fewer than 677,000 subscribers shall be deemed a small operator, if its annual revenues, when combined with the total annual revenues of all its affiliates, do not exceed \$250 million in the aggregate.<sup>304</sup> Industry data indicate that, of 1,076 cable operators nationwide, all but ten are small under this size standard.<sup>305</sup> We note that the Commission neither requests nor collects information on whether cable system operators are affiliated with entities whose gross annual revenues exceed \$250 million,<sup>306</sup> and therefore we are unable to estimate more accurately the number of cable system operators that would qualify as small under this size standard.

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<sup>295</sup> U.S. Census Bureau, 2002 NAICS Definitions, "517510 Cable and Other Program Distribution"; <http://www.census.gov/epcd/naics02/def/NDEF517.HTM>.

<sup>296</sup> 13 C.F.R. § 121.201, NAICS code 517510.

<sup>297</sup> U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, Table 4, Receipts Size of Firms for the United States: 2002, NAICS code 517510 (issued November 2005).

<sup>298</sup> *Id.* An additional 61 firms had annual receipts of \$25 million or more.

<sup>299</sup> 47 C.F.R. § 76.901(e). The Commission determined that this size standard equates approximately to a size standard of \$100 million or less in annual revenues. *Implementation of Sections of the 1992 Cable Act: Rate Regulation*, Sixth Report and Order and Eleventh Order on Reconsideration, 10 FCC Rcd 7393, 7408 (1995).

<sup>300</sup> These data are derived from: R.R. Bowker, *Broadcasting & Cable Yearbook 2006*, "Top 25 Cable/Satellite Operators," pages A-8 & C-2 (data current as of June 30, 2005); Warren Communications News, *Television & Cable Factbook 2006*, "Ownership of Cable Systems in the United States," pages D-1805 to D-1857.

<sup>301</sup> 47 C.F.R. § 76.901(c).

<sup>302</sup> Warren Communications News, *Television & Cable Factbook 2006*, "U.S. Cable Systems by Subscriber Size," page F-2 (data current as of Oct. 2005). The data do not include 718 systems for which classifying data were not available.

<sup>303</sup> 47 U.S.C. § 543(m)(2); see 47 C.F.R. § 76.901(f) & nn. 1-3.

<sup>304</sup> 47 C.F.R. § 76.901(f); see Public Notice, *FCC Announces New Subscriber Count for the Definition of Small Cable Operator*, DA 01-158 (Cable Services Bureau, Jan. 24, 2001).

<sup>305</sup> These data are derived from: R.R. Bowker, *Broadcasting & Cable Yearbook 2006*, "Top 25 Cable/Satellite Operators," pages A-8 & C-2 (data current as of June 30, 2005); Warren Communications News, *Television & Cable Factbook 2006*, "Ownership of Cable Systems in the United States," pages D-1805 to D-1857.

50. *Open Video Services.* Open Video Service (OVS) systems provide subscription services.<sup>307</sup> The SBA has created a small business size standard for Cable and Other Program Distribution.<sup>308</sup> This standard provides that a small entity is one with \$13.5 million or less in annual receipts. The Commission has certified approximately 25 OVS operators to serve 75 areas, and some of these are currently providing service.<sup>309</sup> Affiliates of Residential Communications Network, Inc. (RCN) received approval to operate OVS systems in New York City, Boston, Washington, D.C., and other areas. RCN has sufficient revenues to assure that they do not qualify as a small business entity. Little financial information is available for the other entities that are authorized to provide OVS and are not yet operational. Given that some entities authorized to provide OVS service have not yet begun to generate revenues, the Commission concludes that up to 24 OVS operators (those remaining) might qualify as small businesses that may be affected by the rules and policies adopted herein.

### 3. Internet Service Providers

51. *Internet Service Providers.* The SBA has developed a small business size standard for Internet Service Providers (ISPs). ISPs “provide clients access to the Internet and generally provide related services such as web hosting, web page designing, and hardware or software consulting related to Internet connectivity.”<sup>310</sup> Under the SBA size standard, such a business is small if it has average annual receipts of \$23 million or less.<sup>311</sup> According to Census Bureau data for 2002, there were 2,529 firms in this category that operated for the entire year.<sup>312</sup> Of these, 2,437 firms had annual receipts of under \$10 million, and an additional 47 firms had receipts of between \$10 million and \$24, 999,999. Consequently, we estimate that the majority of these firms are small entities that may be affected by our action.

### 4. Other Internet-Related Entities

52. *Web Search Portals.* Our action pertains to VoIP services, which could be provided by entities that provide other services such as email, online gaming, web browsing, video conferencing, instant messaging, and other, similar IP-enabled services. The Commission has not adopted a size standard for entities that create or provide these types of services or applications. However, the Census Bureau has identified firms that “operate web sites that use a search engine to generate and maintain extensive databases of Internet addresses and content in an easily searchable format. Web search portals often provide additional Internet services, such as e-mail, connections to other web sites, auctions, news, and other limited content, and serve as a home base for Internet users.”<sup>313</sup> The SBA has developed a small business size standard for this category; that size standard is \$6.5 million or less in average annual receipts.<sup>314</sup> According to Census Bureau data for 2002, there were 342 firms in this category that operated for the entire year.<sup>315</sup> Of these, 303 had annual receipts of under \$5 million, and an additional 15 firms had receipts of between \$5 million and \$9,999,999. Consequently, we estimate that the majority of these

<sup>306</sup> The Commission does receive such information on a case-by-case basis if a cable operator appeals a local franchise authority’s finding that the operator does not qualify as a small cable operator pursuant to § 76.901(f) of the Commission’s rules. See 47 C.F.R. § 76.909(b).

<sup>307</sup> See 47 U.S.C. § 573.

<sup>308</sup> 13 C.F.R. § 121.201, NAICS code 517510.

<sup>309</sup> See <<http://www.fcc.gov/csb/ovs/csovsr.html>> (current as of March 2002).

<sup>310</sup> U.S. Census Bureau, “2002 NAICS Definitions: 518111 Internet Service Providers”; <http://www.census.gov/epcd/naics02/def/NDEF518.HTM>.

<sup>311</sup> 13 C.F.R. § 121.201, NAICS code 518111.

<sup>312</sup> U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” Table 4, NAICS code 518111 (issued Nov. 2005).

<sup>313</sup> U.S. Census Bureau, “2002 NAICS Definitions: 518112 Web Search Portals”; <http://www.census.gov/epcd/naics02/def/NDEF518.HTM>.

<sup>314</sup> 13 C.F.R. § 121.201, NAICS code 518112.

firms are small entities that may be affected by our action.

53. *Data Processing, Hosting, and Related Services.* Entities in this category “primarily ... provid[e] infrastructure for hosting or data processing services.”<sup>316</sup> The SBA has developed a small business size standard for this category; that size standard is \$23 million or less in average annual receipts.<sup>317</sup> According to Census Bureau data for 2002, there were 6,877 firms in this category that operated for the entire year.<sup>318</sup> Of these, 6,418 had annual receipts of under \$10 million, and an additional 251 firms had receipts of between \$10 million and \$24,999,999. Consequently, we estimate that the majority of these firms are small entities that may be affected by our action.

54. *All Other Information Services.* “This industry comprises establishments primarily engaged in providing other information services (except new syndicates and libraries and archives).”<sup>319</sup> Our action pertains to VoIP services, which could be provided by entities that provide other services such as email, online gaming, web browsing, video conferencing, instant messaging, and other, similar IP-enabled services. The SBA has developed a small business size standard for this category; that size standard is \$6.5 million or less in average annual receipts.<sup>320</sup> According to Census Bureau data for 2002, there were 155 firms in this category that operated for the entire year.<sup>321</sup> Of these, 138 had annual receipts of under \$5 million, and an additional four firms had receipts of between \$5 million and \$9,999,999. Consequently, we estimate that the majority of these firms are small entities that may be affected by our action.

55. *Internet Publishing and Broadcasting.* “This industry comprises establishments engaged in publishing and/or broadcasting content on the Internet exclusively. These establishments do not provide traditional (non-Internet) versions of the content that they publish or broadcast.”<sup>322</sup> The SBA has developed a small business size standard for this census category; that size standard is 500 or fewer employees.<sup>323</sup> According to Census Bureau data for 2002, there were 1,362 firms in this category that operated for the entire year.<sup>324</sup> Of these, 1,351 had employment of 499 or fewer employees, and six firms had employment of between 500 and 999. Consequently, we estimate that the majority of these firms are small entities that may be affected by our action.

56. *Software Publishers.* These companies may design, develop or publish software and may provide other support services to software purchasers, such as providing documentation or assisting in

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<sup>315</sup> U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” Table 4, NAICS code 518112 (issued Nov. 2005).

<sup>316</sup> U.S. Census Bureau, “2002 NAICS Definitions: 518210 Data Processing, Hosting, and Related Services”; <http://www.census.gov/epcd/naics02/def/NDEF518.HTM>.

<sup>317</sup> 13 C.F.R. § 121.201, NAICS code 518210.

<sup>318</sup> U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” Table 4, NAICS code 518210 (issued Nov. 2005).

<sup>319</sup> U.S. Census Bureau, “2002 NAICS Definitions: 519190 All Other Information Services”; <http://www.census.gov/epcd/naics02/def/NDEF519.HTM>.

<sup>320</sup> 13 C.F.R. § 121.201, NAICS code 519190.

<sup>321</sup> U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” Table 4, NAICS code 519190 (issued Nov. 2005).

<sup>322</sup> U.S. Census Bureau, “2002 NAICS Definitions: 516110 Internet Publishing and Broadcasting”; <http://www.census.gov/epcd/naics02/def/NDEF516.HTM>.

<sup>323</sup> 13 C.F.R. § 121.201, NAICS code 516110.

<sup>324</sup> U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” Table 5, NAICS code 516110 (issued Nov. 2005).

installation. The companies may also design software to meet the needs of specific users.<sup>325</sup> The SBA has developed a small business size standard of \$23 million or less in average annual receipts for all of the following pertinent categories: Software Publishers, Custom Computer Programming Services, and Other Computer Related Services.<sup>326</sup> For Software Publishers, Census Bureau data for 2002 indicate that there were 6,155 firms in the category that operated for the entire year.<sup>327</sup> Of these, 7,633 had annual receipts of under \$10 million, and an additional 403 firms had receipts of between \$10 million and \$24,999,999. For providers of Custom Computer Programming Services, the Census Bureau data indicate that there were 32,269 firms that operated for the entire year.<sup>328</sup> Of these, 31,416 had annual receipts of under \$10 million, and an additional 565 firms had receipts of between \$10 million and \$24,999,999. For providers of Other Computer Related Services, the Census Bureau data indicate that there were 6,357 firms that operated for the entire year.<sup>329</sup> Of these, 6,187 had annual receipts of under \$10 million, and an additional 101 firms had receipts of between \$10 million and \$24,999,999. Consequently, we estimate that the majority of the firms in each of these three categories are small entities that may be affected by our action.

## 5. Equipment Manufacturers

57. The disability access requirements we adopt today apply to manufacturers of specialized VoIP equipment and CPE. The following entities include those that may be affected by the actions we take in this *Order*.

58. *Telephone Apparatus Manufacturing*. The Census Bureau defines this category as follows: “This industry comprises establishments primarily engaged in manufacturing wire telephone and data communications equipment. These products may be standalone or board-level components of a larger system. Examples of products made by these establishments are central office switching equipment, cordless telephones (except cellular), PBX equipment, telephones, telephone answering machines, LAN modems, multi-user modems, and other data communications equipment, such as bridges, routers, and gateways.”<sup>330</sup> The SBA has developed a small business size standard for Telephone Apparatus Manufacturing, which is: all such firms having 1,000 or fewer employees.<sup>331</sup> According to Census Bureau data for 2002, there were a total of 518 establishments in this category that operated for the entire year.<sup>332</sup> Of this total, 511 had employment of under 1,000, and an additional 7 had employment of 1,000

<sup>325</sup> See U.S. Census Bureau, “2002 NAICS Definitions: 511210 Software Publishers”; <http://www.census.gov/epcd/naics02/def/NDEF511.HTM>.

<sup>326</sup> 13 C.F.R. § 121.201, NAICS codes 511210, 541511, and 541519.

<sup>327</sup> U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” Table 4, NAICS code 511210 (issued Nov. 2005).

<sup>328</sup> U.S. Census Bureau, 2002 Economic Census, Subject Series: Professional, Scientific, and Technical Services, “Establishment and Firm Size (Including Legal Form of Organization),” Table 4, NAICS code 541511 (issued Nov. 2005).

<sup>329</sup> U.S. Census Bureau, 2002 Economic Census, Subject Series: Professional, Scientific, and Technical Services, “Establishment and Firm Size (Including Legal Form of Organization),” Table 4, NAICS code 541519 (issued Nov. 2005).

<sup>330</sup> U.S. Census Bureau, 2002 NAICS Definitions, “334210 Telephone Apparatus Manufacturing”; <http://www.census.gov/epcd/naics02/def/NDEF334.HTM#N3342>.

<sup>331</sup> 13 C.F.R. § 121.201, NAICS code 334210.

<sup>332</sup> U.S. Census Bureau, American FactFinder, 2002 Economic Census, Industry Series, Industry Statistics by Employment Size, NAICS code 334210 (released May 26, 2005); <http://factfinder.census.gov>. The number of “establishments” is a less helpful indicator of small business prevalence in this context than would be the number of “firms” or “companies,” because the latter take into account the concept of common ownership or control. Any single physical location for an entity is an establishment, even though that location may be owned by a different establishment. Thus, the numbers given may reflect inflated numbers of businesses in this category, including the numbers of small businesses. In this category, the Census breaks-out data for firms or companies only to give the

to 2,499.<sup>333</sup> Thus, under this size standard, the majority of firms can be considered small.

59. *Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing.* The Census Bureau defines this category as follows: “This industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment. Examples of products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment.”<sup>334</sup> The SBA has developed a small business size standard for Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing, which is: all such firms having 750 or fewer employees.<sup>335</sup> According to Census Bureau data for 2002, there were a total of 1,041 establishments in this category that operated for the entire year.<sup>336</sup> Of this total, 1,010 had employment of under 500, and an additional 13 had employment of 500 to 999.<sup>337</sup> Thus, under this size standard, the majority of firms can be considered small.

60. *Other Communications Equipment Manufacturing.* The Census Bureau defines this category as follows: “This industry comprises establishments primarily engaged in manufacturing communications equipment (except telephone apparatus, and radio and television broadcast, and wireless communications equipment).”<sup>338</sup> The SBA has developed a small business size standard for Other Communications Equipment Manufacturing, which is: all such firms having 750 or fewer employees.<sup>339</sup> According to Census Bureau data for 2002, there were a total of 503 establishments in this category that operated for the entire year.<sup>340</sup> Of this total, 493 had employment of under 500, and an additional 7 had employment of 500 to 999.<sup>341</sup> Thus, under this size standard, the majority of firms can be considered small.

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total number of such entities for 2002, which was 450.

<sup>333</sup> *Id.* An additional 4 establishments had employment of 2,500 or more.

<sup>334</sup> U.S. Census Bureau, 2002 NAICS Definitions, “334220 Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing”; <http://www.census.gov/epcd/naics02/def/NDEF334.HTM#N3342>.

<sup>335</sup> 13 C.F.R. § 121.201, NAICS code 334220.

<sup>336</sup> U.S. Census Bureau, American FactFinder, 2002 Economic Census, Industry Series, Industry Statistics by Employment Size, NAICS code 334220 (released May 26, 2005); <http://factfinder.census.gov>. The number of “establishments” is a less helpful indicator of small business prevalence in this context than would be the number of “firms” or “companies,” because the latter take into account the concept of common ownership or control. Any single physical location for an entity is an establishment, even though that location may be owned by a different establishment. Thus, the numbers given may reflect inflated numbers of businesses in this category, including the numbers of small businesses. In this category, the Census breaks out data for firms or companies only to give the total number of such entities for 2002, which was 929.

<sup>337</sup> *Id.* An additional 18 establishments had employment of 1,000 or more.

<sup>338</sup> U.S. Census Bureau, 2002 NAICS Definitions, “334290 Other Communications Equipment Manufacturing”; <http://www.census.gov/epcd/naics02/def/NDEF334.HTM#N3342>.

<sup>339</sup> 13 C.F.R. § 121.201, NAICS code 334290.

<sup>340</sup> U.S. Census Bureau, American FactFinder, 2002 Economic Census, Industry Series, Industry Statistics by Employment Size, NAICS code 334290 (released May 26, 2005); <http://factfinder.census.gov>. The number of “establishments” is a less helpful indicator of small business prevalence in this context than would be the number of “firms” or “companies,” because the latter take into account the concept of common ownership or control. Any single physical location for an entity is an establishment, even though that location may be owned by a different establishment. Thus, the numbers given may reflect inflated numbers of businesses in this category, including the numbers of small businesses. In this category, the Census breaks out data for firms or companies only to give the total number of such entities for 2002, which was 471.

<sup>341</sup> *Id.* An additional 3 establishments had employment of 1,000 or more.



61. SBA small business size standards are given in terms of “firms.” Census Bureau data concerning computer manufacturers, on the other hand, are given in terms of “establishments.” We note that the number of “establishments” is a less helpful indicator of small business prevalence in this context than would be the number of “firms” or “companies,” because the latter take into account the concept of common ownership or control. Any single physical location for an entity is an establishment, even though that location may be owned by a different establishment. Thus, the census numbers provided below may reflect inflated numbers of businesses in the given category, including the numbers of small businesses.

62. *Electronic Computer Manufacturing.* This category “comprises establishments primarily engaged in manufacturing and/or assembling electronic computers, such as mainframes, personal computers, workstations, laptops, and computer servers.”<sup>342</sup> The SBA has developed a small business size standard for this category of manufacturing; that size standard is 1,000 or fewer employees.<sup>343</sup> According to Census Bureau data, there were 485 establishments in this category that operated with payroll during 2002.<sup>344</sup> Of these, 476 had employment of under 1,000, and an additional four establishments had employment of 1,000 to 2,499. Consequently, we estimate that the majority of these establishments are small entities.

63. *Computer Storage Device Manufacturing.* These establishments manufacture “computer storage devices that allow the storage and retrieval of data from a phase change, magnetic, optical, or magnetic/optical media.”<sup>345</sup> The SBA has developed a small business size standard for this category of manufacturing; that size standard is 1,000 or fewer employees.<sup>346</sup> According to Census Bureau data, there were 170 establishments in this category that operated with payroll during 2002.<sup>347</sup> Of these, 164 had employment of under 500, and five establishments had employment of 500 to 999. Consequently, we estimate that the majority of these establishments are small entities

64. *Computer Terminal Manufacturing.* “Computer terminals are input/output devices that connect with a central computer for processing.”<sup>348</sup> The SBA has developed a small business size standard for this category of manufacturing; that size standard is 1,000 or fewer employees.<sup>349</sup> According to Census Bureau data, there were 71 establishments in this category that operated with payroll during 2002, and all of the establishments had employment of under 1,000.<sup>350</sup> Consequently, we estimate that all of these establishments are small entities.

65. *Other Computer Peripheral Equipment Manufacturing.* Examples of peripheral equipment in this category include keyboards, mouse devices, monitors, and scanners.<sup>351</sup> The SBA has developed a small business size standard for this category of manufacturing; that size standard is 1,000 or fewer

<sup>342</sup> U.S. Census Bureau, 2002 NAICS Definitions, “334111 Electronic Computer Manufacturing”; <http://www.census.gov/epcd/naics02/def/ND334111.HTM#N334111>.

<sup>343</sup> 13 C.F.R. § 121.201, NAICS code 334111.

<sup>344</sup> U.S. Census Bureau, 2002 Economic Census, Industry Series: Manufacturing, “Electronic Computer Manufacturing,” Table 4, NAICS code 334111 (issued Dec. 2004).

<sup>345</sup> U.S. Census Bureau, 2002 NAICS Definitions, “334112 Computer Storage Device Manufacturing”; <http://www.census.gov/epcd/naics02/def/ND334112.HTM#N334112>.

<sup>346</sup> 13 C.F.R. § 121.201, NAICS code 334112.

<sup>347</sup> U.S. Census Bureau, 2002 Economic Census, Industry Series: Manufacturing, “Computer Storage Device Manufacturing,” Table 4, NAICS code 334112 (issued Dec. 2004).

<sup>348</sup> U.S. Census Bureau, 2002 NAICS Definitions, “334113 Computer Terminal Manufacturing”; <http://www.census.gov/epcd/naics02/def/ND334113.HTM#N334113>.

<sup>349</sup> 13 C.F.R. § 121.201, NAICS code 334113.

<sup>350</sup> U.S. Census Bureau, 2002 Economic Census, Industry Series: Manufacturing, “Computer Terminal Manufacturing,” Table 4, NAICS code 334113 (issued Dec. 2004). In fact, all had employment of under 500.

employees.<sup>352</sup> According to Census Bureau data, there were 860 establishments in this category that operated with payroll during 2002.<sup>353</sup> Of these, 851 had employment of under 1,000, and an additional five establishments had employment of 1,000 to 2,499. Consequently, we estimate that the majority of these establishments are small entities.

66. *Audio and Video Equipment Manufacturing.* These establishments manufacture “electronic audio and video equipment for home entertainment, motor vehicle, public address and musical instrument amplifications.”<sup>354</sup> The SBA has developed a small business size standard for this category of manufacturing; that size standard is 750 or fewer employees.<sup>355</sup> According to Census Bureau data, there were 571 establishments in this category that operated with payroll during 2002.<sup>356</sup> Of these, 560 had employment of under 500, and ten establishments had employment of 500 to 999. Consequently, we estimate that the majority of these establishments are small entities.

67. *Electron Tube Manufacturing.* These establishments are “primarily engaged in manufacturing electron tubes and parts (except glass blanks).”<sup>357</sup> The SBA has developed a small business size standard for this category of manufacturing; that size standard is 750 or fewer employees.<sup>358</sup> According to Census Bureau data, there were 102 establishments in this category that operated with payroll during 2002.<sup>359</sup> Of these, 97 had employment of under 500, and one establishment had employment of 500 to 999. Consequently, we estimate that the majority of these establishments are small entities.

68. *Bare Printed Circuit Board Manufacturing.* These establishments are “primarily engaged in manufacturing bare (i.e., rigid or flexible) printed circuit boards without mounted electronic components.”<sup>360</sup> The SBA has developed a small business size standard for this category of manufacturing; that size standard is 500 or fewer employees.<sup>361</sup> According to Census Bureau data, there were 936 establishments in this category that operated with payroll during 2002.<sup>362</sup> Of these, 922 had employment of under 500, and 12 establishments had employment of 500 to 999. Consequently, we estimate that the majority of these establishments are small entities.

69. *Semiconductor and Related Device Manufacturing.* Examples of manufactured devices in

<sup>351</sup> U.S. Census Bureau, 2002 NAICS Definitions, “334119 Other Computer Peripheral Equipment Manufacturing”; <http://www.census.gov/epcd/naics02/def/ND334119.HTM#N334119>.

<sup>352</sup> 13 C.F.R. § 121.201, NAICS code 334119.

<sup>353</sup> U.S. Census Bureau, 2002 Economic Census, Industry Series: Manufacturing, “Other Computer Peripheral Equipment Manufacturing,” Table 4, NAICS code 334119 (issued Dec. 2004).

<sup>354</sup> U.S. Census Bureau, 2002 NAICS Definitions, “334310 Audio and Video Equipment Manufacturing”; <http://www.census.gov/epcd/naics02/def/ND334310.HTM#N334310>.

<sup>355</sup> 13 C.F.R. § 121.201, NAICS code 334310.

<sup>356</sup> U.S. Census Bureau, 2002 Economic Census, Industry Series: Manufacturing, “Audio and Video Equipment Manufacturing,” Table 4, NAICS code 334310 (issued Dec. 2004).

<sup>357</sup> U.S. Census Bureau, 2002 NAICS Definitions, “334411 Electron Tube Manufacturing”; <http://www.census.gov/epcd/naics02/def/ND334411.HTM#N334411>.

<sup>358</sup> 13 C.F.R. § 121.201, NAICS code 334411.

<sup>359</sup> U.S. Census Bureau, 2002 Economic Census, Industry Series: Manufacturing, “Electron Tube Manufacturing,” Table 4, NAICS code 334411 (issued Dec. 2004).

<sup>360</sup> U.S. Census Bureau, 2002 NAICS Definitions, “334412 Bare Printed Circuit Board Manufacturing”; <http://www.census.gov/epcd/naics02/def/ND334412.HTM#N334412>.

<sup>361</sup> 13 C.F.R. § 121.201, NAICS code 334412.

<sup>362</sup> U.S. Census Bureau, 2002 Economic Census, Industry Series: Manufacturing, “Bare Printed Circuit Board Manufacturing,” Table 4, NAICS code 334412 (issued Jan. 2005).



this category include “integrated circuits, memory chips, microprocessors, diodes, transistors, solar cells and other optoelectronic devices.”<sup>363</sup> The SBA has developed a small business size standard for this category of manufacturing; that size standard is 500 or fewer employees.<sup>364</sup> According to Census Bureau data, there were 1,032 establishments in this category that operated with payroll during 2002.<sup>365</sup> Of these, 950 had employment of under 500, and 42 establishments had employment of 500 to 999. Consequently, we estimate that the majority of these establishments are small entities.

70. *Electronic Capacitor Manufacturing.* These establishments manufacture “electronic fixed and variable capacitors and condensers.”<sup>366</sup> The SBA has developed a small business size standard for this category of manufacturing; that size standard is 500 or fewer employees.<sup>367</sup> According to Census Bureau data, there were 104 establishments in this category that operated with payroll during 2002.<sup>368</sup> Of these, 101 had employment of under 500, and two establishments had employment of 500 to 999. Consequently, we estimate that the majority of these establishments are small entities.

71. *Electronic Resistor Manufacturing.* These establishments manufacture “electronic resistors, such as fixed and variable resistors, resistor networks, thermistors, and varistors.”<sup>369</sup> The SBA has developed a small business size standard for this category of manufacturing; that size standard is 500 or fewer employees.<sup>370</sup> According to Census Bureau data, there were 79 establishments in this category that operated with payroll during 2002.<sup>371</sup> All of these establishments had employment of under 500. Consequently, we estimate that all of these establishments are small entities.

72. *Electronic Coil, Transformer, and Other Inductor Manufacturing.* These establishments manufacture “electronic inductors, such as coils and transformers.”<sup>372</sup> The SBA has developed a small business size standard for this category of manufacturing; that size standard is 500 or fewer employees.<sup>373</sup> According to Census Bureau data, there were 365 establishments in this category that operated with payroll during 2002.<sup>374</sup> All of these establishments had employment of under 500. Consequently, we estimate that all of these establishments are small entities.

73. *Electronic Connector Manufacturing.* These establishments manufacture “electronic

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<sup>363</sup> U.S. Census Bureau, 2002 NAICS Definitions, “334413 Semiconductor and Related Device Manufacturing”; <http://www.census.gov/epcd/naics02/def/ND334413.HTM#N334413>.

<sup>364</sup> 13 C.F.R. § 121.201, NAICS code 334413.

<sup>365</sup> U.S. Census Bureau, 2002 Economic Census, Industry Series: Manufacturing, “Semiconductor and Related Device Manufacturing,” Table 4, NAICS code 334413 (issued Jan. 2005).

<sup>366</sup> U.S. Census Bureau, 2002 NAICS Definitions, “334414 Electronic Capacitor Manufacturing”; <http://www.census.gov/epcd/naics02/def/ND334414.HTM#N334414>.

<sup>367</sup> 13 C.F.R. § 121.201, NAICS code 334414.

<sup>368</sup> U.S. Census Bureau, 2002 Economic Census, Industry Series: Manufacturing, “Electronic Capacitor Manufacturing,” Table 4, NAICS code 334414 (issued Jan. 2005).

<sup>369</sup> U.S. Census Bureau, 2002 NAICS Definitions, “334415 Electronic Resistor Manufacturing”; <http://www.census.gov/epcd/naics02/def/ND334415.HTM#N334415>.

<sup>370</sup> 13 C.F.R. § 121.201, NAICS code 334415.

<sup>371</sup> U.S. Census Bureau, 2002 Economic Census, Industry Series: Manufacturing, “Electronic Resistor Manufacturing,” Table 4, NAICS code 334415 (issued Jan. 2005).

<sup>372</sup> U.S. Census Bureau, 2002 NAICS Definitions, “334416 Electronic Coil, Transformer, and Other Inductor Manufacturing”; <http://www.census.gov/epcd/naics02/def/ND334416.HTM#N334416>.

<sup>373</sup> 13 C.F.R. § 121.201, NAICS code 334416.

<sup>374</sup> U.S. Census Bureau, 2002 Economic Census, Industry Series: Manufacturing, “Electronic Coil, Transformer, and Other Inductor Manufacturing,” Table 4, NAICS code 334416 (issued Jan. 2005).

connectors, such as coaxial, cylindrical, rack and panel, pin and sleeve, printed circuit and fiber optic.”<sup>375</sup> The SBA has developed a small business size standard for this category of manufacturing; that size standard is 500 or fewer employees.<sup>376</sup> According to Census Bureau data, there were 321 establishments in this category that operated with payroll during 2002.<sup>377</sup> Of these, 315 had employment of under 500, and three establishments had employment of 500 to 999. Consequently, we estimate that the majority of these establishments are small entities.

74. *Printed Circuit Assembly (Electronic Assembly) Manufacturing.* These are establishments “primarily engaged in loading components onto printed circuit boards or who manufacture and ship loaded printed circuit boards.”<sup>378</sup> The SBA has developed a small business size standard for this category of manufacturing; that size standard is 500 or fewer employees.<sup>379</sup> According to Census Bureau data, there were 868 establishments in this category that operated with payroll during 2002.<sup>380</sup> Of these, 839 had employment of under 500, and 18 establishments had employment of 500 to 999. Consequently, we estimate that the majority of these establishments are small entities.

75. *Other Electronic Component Manufacturing.*<sup>381</sup> The SBA has developed a small business size standard for this category of manufacturing; that size standard is 500 or fewer employees.<sup>382</sup> According to Census Bureau data, there were 1,627 establishments in this category that operated with payroll during 2002.<sup>383</sup> Of these, 1,616 had employment of under 500, and eight establishments had employment of 500 to 999. Consequently, we estimate that the majority of these establishments are small entities.

76. *Fiber Optic Cable Manufacturing.* These establishments manufacture “insulated fiber-optic cable from purchased fiber-optic strand.”<sup>384</sup> The SBA has developed a small business size standard for this category of manufacturing; that size standard is 1,000 or fewer employees.<sup>385</sup> According to Census Bureau data, there were 96 establishments in this category that operated with payroll during 2002.<sup>386</sup> Of these, 95 had employment of under 1,000, and one establishment had employment of 1,000 to 2,499. Consequently, we estimate that the majority or all of these establishments are small entities.

77. *Other Communication and Energy Wire Manufacturing.* These establishments manufacture

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<sup>375</sup> U.S. Census Bureau, 2002 NAICS Definitions, “334417 Electronic Connector Manufacturing”; <http://www.census.gov/epcd/naics02/def/ND334417.HTM#N334417>.

<sup>376</sup> 13 C.F.R. § 121.201, NAICS code 334417.

<sup>377</sup> U.S. Census Bureau, 2002 Economic Census, Industry Series: Manufacturing, “Electronic Connector Manufacturing,” Table 4, NAICS code 334417 (issued Jan. 2005).

<sup>378</sup> U.S. Census Bureau, 2002 NAICS Definitions, “334418 Printed Circuit Assembly (Electronic Assembly) Manufacturing”; <http://www.census.gov/epcd/naics02/def/ND334418.HTM#N334418>.

<sup>379</sup> 13 C.F.R. § 121.201, NAICS code 334418.

<sup>380</sup> U.S. Census Bureau, 2002 Economic Census, Industry Series: Manufacturing, “Printed Circuit Assembly (Electronic Assembly) Manufacturing,” Table 4, NAICS code 334418 (issued Jan. 2005).

<sup>381</sup> U.S. Census Bureau, 2002 NAICS Definitions, “334419 Other Electronic Component Manufacturing”; <http://www.census.gov/epcd/naics02/def/ND334419.HTM#N334419>.

<sup>382</sup> 13 C.F.R. § 121.201, NAICS code 334419.

<sup>383</sup> U.S. Census Bureau, 2002 Economic Census, Industry Series: Manufacturing, “Other Electronic Component Manufacturing,” Table 4, NAICS code 334419 (issued Jan. 2005).

<sup>384</sup> U.S. Census Bureau, 2002 NAICS Definitions, “335921 Fiber Optic Cable Manufacturing”; <http://www.census.gov/epcd/naics02/def/ND335921.HTM#N335921>.

<sup>385</sup> 13 C.F.R. § 121.201, NAICS code 335921.

<sup>386</sup> U.S. Census Bureau, 2002 Economic Census, Industry Series: Manufacturing, “Fiber Optic Cable Manufacturing,” Table 4, NAICS code 335921 (issued Dec. 2004).

“insulated wire and cable of nonferrous metals from purchased wire.”<sup>387</sup> The SBA has developed a small business size standard for this category of manufacturing; that size standard is 1,000 or fewer employees.<sup>388</sup> According to Census Bureau data, there were 356 establishments in this category that operated with payroll during 2002.<sup>389</sup> Of these, 353 had employment of under 1,000, and three establishments had employment of 1,000 to 2,499. Consequently, we estimate that the majority or all of these establishments are small entities.

#### **D. Description of Projected Reporting, Recordkeeping and Other Compliance Requirements**

78. *Disability Access Requirements.*<sup>390</sup> We require providers of interconnected VoIP service and specialized equipment and CPE manufacturers to maintain records pertaining to their disability access compliance efforts and to designate, and submit contact information for, an agent for service of disability access-related inquiries or complaints. In addition, the rules we adopt today: (1) require *manufacturers* of specialized interconnected VoIP equipment or CPE to ensure that their equipment is designed, developed and fabricated to be accessible to individuals with disabilities, if readily achievable and, where such accessibility is not readily achievable, to ensure that the equipment is compatible with existing peripheral devices or specialized CPE, if readily achievable; (2) require interconnected VoIP *providers* to ensure that their service is accessible to individuals with disabilities, if readily achievable and, where such accessibility is not readily achievable, to ensure that the service is compatible with existing peripheral devices or specialized CPE, if readily achievable; (3) require covered manufacturers and service providers to evaluate the accessibility, usability, and compatibility of covered services and equipment throughout the design and development process; and (4) require covered manufacturers and service providers to ensure that information and documentation provided in connection with equipment or services be accessible to people with disabilities, where readily achievable, and that employee training, where provided at all, account for accessibility requirements.

79. *TRS Requirements.*<sup>391</sup> We require providers of interconnected VoIP service to comply with the TRS requirements contained in our regulations, 47 C.F.R. §§ 64.601 *et seq.* Among the TRS requirements that we extend to interconnected VoIP providers, we require such providers to contribute to the Interstate TRS Fund under the Commission’s existing contribution rules, and to offer 711 abbreviated dialing for access to relay services. These providers will contribute to the Interstate TRS Fund through monthly or annual payments into the Fund as specified in the Commission’s TRS rules. Interconnected VoIP provider payments into the Fund will be assessed on the basis of revenue information these providers currently submit to USAC on the FCC Form 499-A.

#### **E. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered**

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

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<sup>387</sup> U.S. Census Bureau, 2002 NAICS Definitions, “335929 Other Communication and Energy Wire Manufacturing”; <http://www.census.gov/epcd/naics02/def/ND335929.HTM#N335929>.

<sup>388</sup> 13 C.F.R. § 121.201, NAICS code 335929.

<sup>389</sup> U.S. Census Bureau, 2002 Economic Census, Industry Series: Manufacturing, “Other Communication and Energy Wire Manufacturing,” Table 4, NAICS code 335929 (issued Dec. 2004).

<sup>390</sup> *See Order* at paras. 16-20, 25-31.

<sup>391</sup> *See Order* at paras. 16, 32-33, 36-40.

entities.<sup>392</sup>

81. The Commission has considered how best to minimize any significant economic impact on small entities and, in today's *Order*, has attempted to impose minimal regulation on small entities to the extent consistent with its goal of ensuring that individuals with disabilities have access to critical "POTS-like" communications services and equipment. We have taken several steps to minimize the economic impact on small entities. For example, although we require covered entities to maintain records of their accessibility efforts that can be presented to the Commission to demonstrate compliance, we do not delineate specific documentation or certification requirements for "readily achievable" analyses. In addition, by adopting general performance criteria, as opposed to accessibility standards or performance measurements specifying exactly how access must be achieved, our rules provide small entities flexibility in determining how best to manage their compliance with these rules. Moreover, by adopting the "readily achievable" standard that currently applies to telecommunications service providers and manufacturers, covered interconnected VoIP providers and manufacturers are required to render their services or products accessible only if doing so is "easily accomplishable and able to be carried out without much difficulty or expense." Inasmuch as interconnected VoIP providers will be permitted to file the identical Telecommunications Reporting Worksheet (FCC Form 499-A) for the TRS reporting requirements that these providers currently file in connection with the USF reporting requirements, there will be no increased reporting burden on small businesses. Finally, interconnected VoIP providers whose interstate end-user revenues are deemed *de minimis* under the Commission's TRS rules and procedures in a given Fund year, will be required to contribute only \$25 for that year. These measures should substantially alleviate any economic burdens on small entities.

82. In taking the actions described above, the Commission undertook to assess the interests of small businesses in light of the overriding public interest in, and statutory goal of, making critical communications services accessible by and to all Americans. Therefore, the Commission concluded that it was important for *all* providers of interconnected VoIP service and covered manufacturers, including small businesses, to comply with the rules we adopt today, and we rejected alternative solutions that would have exempted small businesses from these requirements. The record indicated that exempting small carriers from these requirements would compromise the Commission's goal of ensuring access to critical communications services for *all* Americans.

83. **Report to Congress:** The Commission will send a copy of the *Order*, including this FRFA, in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act.<sup>393</sup> In addition, the Commission will send a copy of the *Order*, including this FRFA, to the Chief Counsel for Advocacy of the SBA. A copy of the *Order* and FRFA (or summaries thereof) will also be published in the Federal Register.<sup>394</sup>

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<sup>392</sup> 5 U.S.C. § 603(c).

<sup>393</sup> See 5 U.S.C. § 801(a)(1)(A).

<sup>394</sup> See 5 U.S.C. § 604(b).

**STATEMENT OF  
CHAIRMAN KEVIN J. MARTIN**

*Re: In the Matter of 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, WC Docket No. 04-36, WT Docket No. 96-198.*

Congress mandated that all Americans, including those with disabilities, benefit from advances in telecommunications services and equipment. Nearly eight years ago, the Commission adopted rules to ensure that both telecommunications equipment manufacturers and service providers develop and offer equipment and services in a manner that is accessible to individuals with disabilities. Telecommunications service providers are obligated to contribute to the Telecommunications Relay Services Fund, supporting interstate relay services that help to provide functionally equivalent communications services for individuals with disabilities. Today, we extend these important accessibility and contribution obligations to the provision of interconnected VoIP.

The Commission repeatedly has found that VoIP services are increasingly being marketed and used as a substitute for traditional landline phones. While technologies will continue to evolve, core social goals in the Act regarding the provision of communications services to all remain unchanged.

Since I became Chairman, the Commission has consistently acted to define the appropriate social obligations that apply to evolving classes of broadband services, including VoIP. In 2005, the Commission determined to extend to interconnected VoIP providers E911 obligations, vital to public safety. The Commission also ensured that law enforcement surveillance obligations apply to new, as well as traditional communications services, including interconnected VoIP and broadband. We have also addressed appropriate application of the obligation to contribute to the support of the universal service programs, helping to ensure that communications services are available to all Americans. And earlier this year, the Commission extended obligations to interconnected VoIP providers to protect the privacy of customer information. Today, I am pleased that we extend the important disabilities accessibility and program support obligations in the Act to interconnected VoIP.

Although today's item does not address all of the remaining policy goals, it is a critically important step. We continue to evaluate the remaining obligations including: numbering (access to numbering resources, number portability obligations, and numbering support obligations) and consumer protection issues (service discontinuance notifications, slamming, and billing issues, etc). I hope that by addressing these obligations, the Commission will be able to continue to protect the interests of consumers and establish a competitively neutral playing field for competing services.

**STATEMENT OF  
COMMISSIONER MICHAEL J. COPPS**

Re: *In the Matters of IP-Enabled Services*, WC Docket No. 04-36; *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*, WT Docket No. 96-198; *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123; *The Use of N11 Codes and Other Abbreviated Dialing Arrangements*, CC Docket No. 92-105.

I am pleased to support today's Order because it takes a good step forward to assist the disability community to take full advantage of the services and equipment becoming available in an IP-based world. Improvements in communications technologies, such as cell phones, email, text messaging and videoconferencing, have made the quality of our daily lives better in so many ways for most of us. But these improvements that so many of us take for granted can often be absolutely life-altering for people with disabilities. If they have these new technologies and services available, they have a much better chance to get connected and stay connected with first responders, doctors, employers, family and friends. So we help meet our statutory mission here to ensure that *all* Americans, and that certainly includes some 54 million Americans with disabilities, benefit from advances in telecommunications.

When consumers pick up a phone, they don't worry about whether it is an interconnected VOIP service or a traditional phone service – nor should there be any concern. Therefore it makes sense for the Commission to extend the requirements of section 255 to interconnected VOIP service providers and equipment manufacturers. Section 255 requires, among other things, that equipment manufacturers design and develop their equipment to be accessible for persons with disabilities and that providers ensure that their services are available to this community. I see no reason why these responsibilities should apply any differently to VOIP. We first teed up this question when the Commission adopted its disability access rules in 1999 and again in an NPRM in 2004. Services delayed are services denied, to paraphrase an old aphorism, so clearly it is time for us to act.

I commend the Chairman for getting this Order across the finish line and for working with us to address our concern that the responsibilities set forth in section 225 be required of interconnected VOIP providers, including making 7-1-1 services available for those with hearing and speech disabilities and requiring providers to contribute to the TRS fund. I also appreciate his willingness to recognize in the Order that other issues remain to be addressed as the disabilities community relies on new IP technologies like real time text for both personal and emergency services. Finally, it is my hope that this Order will inspire the VOIP industry to meet and even to go beyond the requirements in this order and inspire the Commission to move quickly on the other important issues in our IP-enabled Services docket which continue to go unaddressed. That said, this is a good Order and I am pleased to support it.

Some of our good friends from the disabilities communities are here with us this afternoon, others were here for this morning's scheduled meeting but had to leave to meet other commitments when our computers all went down, but I want to thank them all for their work on this and the other items before us today and for their tireless engagement in helping us see the light and do the right thing.

**STATEMENT OF  
COMMISSIONER JONATHAN S. ADELSTEIN**

*Re: 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; The Use of N11 Codes and Other Abbreviated Dialing Arrangements, WC Docket No. 04-36, WT Docket No. 96-198, CG Docket No. 03-123, CC Docket No. 92-105.*

In this Order, we take important steps to implement Congress' vision that the promise of new communications technology should benefit all Americans, including those with disabilities. We advance that vision by extending the disability access requirements of the Act to providers of interconnected VoIP services and equipment, and by ensuring that interconnected VoIP providers contribute to the interstate TRS Fund.

Through sections 225 and 255 of the Act, Congress codified important principles that have ensured access to functionally-equivalent services for persons with disabilities. I strongly believe that we must extend the ADA's important protections beyond the world of narrowband telephone service, so I am pleased to support this item.

With consumers and businesses increasingly migrating to interconnected VoIP, we must ensure that providers of those services and manufacturers of equipment or CPE that is specially designed to provide them comply with the requirements of section 255. Particularly as many consumers forego the use of their traditional phone service and as VoIP is embraced in the workplace, these new services must provide for "reasonably achievable" accessibility. Millions of Americans with disabilities should not have to worry if their phone service will work in the manner in which they have come to expect, such as supporting the use of TTYs and shortened dialing codes like 711. This accessibility is critical in order to promote the independence of persons with disabilities, participation in our society, and critical access in emergency situations.

Indeed, Americans with disabilities can benefit from widely-available and accessible interconnected VoIP services. More broadly, IP protocols are increasingly allowing services to combine voice, video, and text in ways that will allow persons with disabilities to communicate far more effectively. Applying section 255 to interconnected VoIP services and equipment will help ensure that accessibility issues are considered early in the development process, which should lessen the need to retrofit regulatory and technical protections after the-fact. At the same time, there is much work to be done to develop specific standards, so I encourage all parties to continue to work toward the common goals of accessibility, functional equivalence, and innovation.

This Order also correctly concludes that providers of interconnected VoIP services should contribute to the TRS Fund. If an interconnected VoIP service provider shares in the benefits of having the ability to access and use TRS or Video Relay Service (VRS), which draws more customers to their service, they should also share in the burdens by contributing to the fund. This action provides a broader and more sustainable base of contributors to the TRS Fund, but it is worth noting that we have more work to do. Particularly as we come to the close of the current funding year, it is important that we move forward with our review of the rate-setting mechanisms and that we work to inject more transparency and predictability in that process.

I want to thank the Chairman and the Bureau for their hard work on this item, and I look forward to working with them, my colleagues, and the disability community as we turn to the challenges ahead.

**STATEMENT OF  
COMMISSIONER DEBORAH TAYLOR TATE**

*Re: 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; The Use of N11 Codes and Other Abbreviated Dialing Arrangements, WC Docket No. 04-36, WT Docket No. 96-198, CG Docket No. 03-123, CC Docket No. 92-105.*

Congress intended for *all* Americans to benefit from advances in telecommunications services and equipment, and this item does just that, both by stabilizing the funding base for TRS services and by extending accessibility requirements to the interconnected VoIP services which millions of Americans are now substituting for traditional voice service. Given the rapid marketplace adoption of interconnected VoIP, I am pleased that we are making these obligations clear at an early stage so that we avoid unnecessary market distortion. While I continue to advocate a light regulatory touch for developing services like interconnected VoIP, it is essential that important goals like universal access by all our citizens are implemented in an equitable and non-discriminatory manner across platforms and service-providers.



**STATEMENT OF  
COMMISSIONER ROBERT M. McDOWELL**

*Re: 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 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, WT Docket No. 96-198, CG Docket No. 03-123, CC Docket No. 92-105.*

The fundamental mission of government is to help those who can't help themselves in the absence of a private sector solution. Today we do just that. Our action helps Americans with disabilities access communications services and equipment needed to improve the quality of their lives, or perhaps to save their lives.

Today, we appropriately extend Section 255 obligations of accessibility for individuals with disabilities to providers of interconnected VoIP services and manufacturers of specialized interconnected VoIP equipment and CPE. Similarly, we require providers of interconnected VoIP services to provide Telecommunications Relay Services (TRS) and 711 abbreviated dialing for TRS access, as well as to contribute to the Interstate TRS Fund. These actions are consistent with the letter and spirit of Sections 225 and 255.

The Commission, under the leadership of Chairman Martin and with the able assistance of the Consumer and Governmental Affairs Bureau, has consistently and diligently worked to carry out the directives of the Communications Act that the hearing and speech impaired community have available "functionally equivalent" communications services. Because VoIP services are rapidly becoming a substitute for traditional phone service in the marketplace, it is imperative that we extend accessibility obligations to those services. Also, today's action is consistent with previous Commission decisions to assure that the ever-increasing number of VoIP service customers have the same protections, accessibility and features as traditional telephone service, such as emergency 911 calling capabilities, universal service contribution obligations, and customer proprietary network information protections.

I wholeheartedly support this effort to improve the availability and choices of services that allow the hearing and speech impaired community to obtain "functionally equivalent" communications services.