

DOCKET FILE COPY ORIGINAL

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

MAILED  
MAR - 7 2011

|  |   |                             |
|--|---|-----------------------------|
| In the Matter of                                 | ) |                             |
|  | ) | FCC Mail Room               |
| Implementation of Sections 716 and 717 of the    | ) | CG Docket No. 10-213        |
| Communications Act of 1934, as Enacted by the    | ) |                             |
| Twenty-First Century Communications and Video    | ) |                             |
| Accessibility Act of 2010                        | ) |                             |
|  | ) |                             |
| Amendments to the Commission's Rules             | ) |                             |
| Implementing Sections 255 and 251(a)(2) of the   | ) | WT Docket No. <u>96-198</u> |
| Communications Act of 1934, as Enacted by the    | ) |                             |
| Telecommunications Act of 1996                   | ) |                             |
|  | ) |                             |
| In the Matter of Accessible Mobile Phone Options | ) |                             |
| for People who are Blind, Deaf-Blind, or Have    | ) | CG Docket No. 10-145        |
| Low Vision                                       | ) |                             |
|  | ) |                             |

**NOTICE OF PROPOSED RULEMAKING**

**Adopted: March 2, 2011**

**Released: March 3, 2011**

**Comment Date: (30 days after date of publication in the Federal Register)**

**Reply Comment Date: (60 days after date of publication in the Federal Register)**

By the Commission: Chairman Genachowski and Commissioner Copps issuing separate statements.

**TABLE OF CONTENTS**

| Heading   | Paragraph # |
|---|-------------|
| I. INTRODUCTION AND OVERVIEW .....  | 1           |
| II. BACKGROUND .....  | 7           |
| III. STATUTORY DEFINITIONS.....   | 14          |
| A. Scope of Coverage .....  | 14          |
| 1. Background.....  | 14          |
| 2. Manufacturers of Equipment Used for Advanced Communications Services .....         | 19          |
| 3. Providers of Advanced Communications Services.....                                 | 25          |
| 4. Advanced Communications Services .....   | 28          |
| a. Interconnected VoIP Service.....   | 29          |
| b. Non-interconnected VoIP Service.....   | 31          |
| c. Electronic Messaging Service .....   | 33          |
| d. Interoperable Video Conferencing Service .....                                     | 35          |
| 5. Customized Equipment or Services.....  | 48          |
| 6. Waivers for Services or Equipment Designed for Purposes other than Using ACS ..... | 52          |
| 7. Exemptions for Small Entities .....  | 61          |
| B. Nature of Statutory Requirements.....  | 67          |
| 1. Achievable Standard.....   | 67          |
| a. General Approach .....   | 67          |

|  |     |
|--|-----|
| b. . Specific Factors.....   | 71  |
| (i) Nature and Cost of Steps Needed with Respect to Specific Equipment or Service.....         | 71  |
| (ii) Technical and Economic Impact on the Operation.....                                       | 72  |
| (iii) Type of Operations.....  | 73  |
| (iv) Extent to which Offering Has Varied Functions, Features, and Prices.....                  | 74  |
| 2. Industry Flexibility.....   | 77  |
| 3. Accessible to and Usable by.....  | 81  |
| 4. Disability.....   | 84  |
| 5. Compatibility.....  | 85  |
| 6. Network Features.....   | 91  |
| 7. Accessibility of Information Content.....   | 95  |
| IV. IMPLEMENTATION REQUIREMENTS.....   | 99  |
| A. Obligations.....  | 99  |
| 1. Manufacturers and Service Providers.....  | 100 |
| 2. Providers of Applications or Services Accessed over Service Provider Networks.....          | 103 |
| B. Performance Objectives.....   | 104 |
| V. INDUSTRY GUIDANCE.....  | 112 |
| A. Safe Harbors.....   | 112 |
| B. Prospective Guidelines.....   | 114 |
| VI. SECTION 717 RECORDKEEPING AND ENFORCEMENT.....   | 116 |
| A. Overview.....   | 116 |
| B. Recordkeeping.....  | 117 |
| C. Enforcement.....  | 124 |
| 1. Background.....   | 124 |
| a. Enforcement of Section 255.....   | 125 |
| b. Section 717 Enforcement Requirements.....   | 126 |
| 2. General Requirements.....   | 128 |
| 3. Informal Complaints.....  | 134 |
| 4. Formal Complaints.....  | 141 |
| VII. SECTION 718 INTERNET BROWSERS BUILT INTO TELEPHONES USED WITH PUBLIC MOBILE SERVICES..... | 143 |
| VIII. PROCEDURAL MATTERS.....  | 145 |
| A. Regulatory Flexibility Act.....   | 145 |
| B. Paperwork Reduction Act of 1995.....  | 146 |
| C. Comment Filing Procedures.....  | 147 |
| IX. ORDERING CLAUSES.....  | 149 |
| Appendix A: List of Commenters   |     |
| Appendix B: Proposed Rules   |     |
| Appendix C: Initial Regulatory Flexibility Analysis  |     |
| Appendix D: Text of Senate Bill 3304 and Senate Bill 3828 as Enacted Into Law                  |     |

## I. INTRODUCTION AND OVERVIEW

1. With this Notice of Proposed Rulemaking (“NPRM”), we initiate a proceeding to update the Commission’s rules to ensure that the 54 million individuals with disabilities<sup>1</sup> are able to fully utilize advanced communications services and equipment and networks used for such services. This NPRM

<sup>1</sup> Matthew W. Brault, Current Population Reports 3, *Americans with Disabilities: 2005*, (Dec. 2008) (“2005 Census Report”), <http://www.census.gov/prod/2008pubs/p70-117.pdf>.

proposes to adopt rules that implement provisions in Section 104 of the “Twenty-First Century Communications and Video Accessibility Act of 2010” (hereinafter referred to as the “CVAA”), the most significant piece of accessibility legislation since the passage of the Americans with Disabilities Act (“ADA”) in 1990.<sup>2</sup>

2. In explaining the need for the CVAA, Congress noted that the communications marketplace has undergone a “fundamental transformation” since Congress acted to ensure access to telecommunications services and equipment by people with disabilities as part of the Telecommunications Act of 1996.<sup>3</sup> Specifically, Congress stated that since it added Section 255 to the Communications Act of 1934, as amended (hereinafter referred to as “the Communications Act” or “the Act”), “Internet-based and digital technologies . . . driven by growth in broadband . . . are now pervasive, offering innovative and exciting ways to communicate and share information.”<sup>4</sup> Congress found, however, that people with disabilities often have not shared in the benefits of this rapid technological advancement and that they face disproportionately higher rates of unemployment and poverty than those without disabilities.<sup>5</sup> Recent surveys confirmed this finding, showing a gap of 38 percentage points in the rates of employment of working-age people with disabilities and those without disabilities (21% v. 59%)<sup>6</sup> and a gap of 27 percentage points in the rates of Internet access (54% v. 81%).<sup>7</sup>

3. These trends are even more troubling when one considers the pace at which the communications marketplace is changing and how we as a society are becoming more dependent on such technologies to succeed in the workplace and to manage our daily lives. Statistics show, for example, that more than ever, Americans rely on their mobile phones for much more than phone service.<sup>8</sup> Increasingly,

---

<sup>2</sup> Twenty-First Century Communications and Video Accessibility Act of 2010, Pub. L. No. 111-260, 124 Stat. 2751 (2010) (as codified in various sections of 47 U.S.C.). The law was enacted on October 8, 2010 (S. 3304, 111th Cong.). See also Amendment of Twenty-First Century Communications and Video Accessibility Act of 2010, Pub. L. No. 111-265, 124 Stat. 2795 (2010), also enacted on October 8, 2010 (S. 3828, 111<sup>th</sup> Cong.) to make technical corrections to the Twenty-First Century Communications and Video Accessibility Act of 2010 and the amendments made by that Act. S. 3304 and S. 3828, the provisions as enacted into law, are attached in Appendix D. Hereinafter, all references to the CVAA will be to the CVAA as codified in the Communications Act of 1934, as amended, unless otherwise indicated.

<sup>3</sup> See 47 U.S.C. § 255; S. Rep. No. 111-386, at 1 (2010) (“Senate Report”); H.R. Rep. No. 111-563, at 19 (2010) (“House Report”).

<sup>4</sup> See Senate Report at 1; House Report at 19.

<sup>5</sup> See Senate Report at 1-2; House Report at 19.

<sup>6</sup> See National Organization on Disability and the Kessler Foundation, *2010 Gap Survey of Americans with Disabilities* (July 26, 2010), available at <http://www.2010disabilitysurveys.org/indexold.html>.

<sup>7</sup> See Susannah Fox, Pew Internet, *Americans living with disability and their technology profile*, (Jan. 21, 2011), <http://www.pewinternet.org/Reports/2011/Disability.aspx>. Additionally, this article shows that “43% of Americans say that people who do not have broadband at home are at a major disadvantage when it comes to finding out about job opportunities or learning career skills.” *Id.*

<sup>8</sup> Aaron Smith, Pew Internet, *Mobile Access 2010*, (July 7, 2010), available at <http://www.pewinternet.org/Reports/2010/Mobile-Access-2010.aspx>. The Pew Report states that “40% of adults use the Internet, email or instant messaging on a mobile phone (up from the 32% of Americans who did this in 2009)” and that “mobile data applications have grown more popular over the last year.” *Id.* It shows that the usage of “non-voice data applications” has grown dramatically in the last year as the percentages have risen for people who use their phones for such things, among others, as checking the Internet, taking pictures, and sending text messages, instant messages, and e-mail and also states, “[o]f the eight mobile data applications we asked about in both 2009 and 2010, all showed statistically significant year-to-year growth.” *Id.*

(continued....)

wireless handsets have evolved into multi-media devices capable of accessing the Internet, sending e-mails or text messages, downloading music, and viewing streaming video programming that can, for example, enable distance education and telemedicine. As described in the National Broadband Plan,<sup>9</sup> one of the Commission's most important policy objectives is the rapid deployment of and universal access to broadband services for all Americans across the country, because broadband technology can stimulate economic growth and provide opportunity for all Americans. To that end, the recommendations in the National Broadband Plan were consistent with the objectives set forth in the CVAA.<sup>10</sup> This law will bring existing communication laws protecting people with disabilities in line with 21<sup>st</sup>-century technologies by ensuring that people with disabilities are not left behind and that they will be able to share fully in the economic, social, and civic benefits of broadband.

4. This NPRM seeks comment on the way in which we should implement the requirements of Sections 716 and 717, which were added by Section 104 of Title I of the CVAA. The statute requires the Commission to adopt rules within one year of enactment.<sup>11</sup> Section 716 requires that providers of "advanced communications services" (or "ACS") and manufacturers of equipment used for ACS make their services and products accessible to people with disabilities, unless it is not achievable to do so.<sup>12</sup> The CVAA provides flexibility to the industry by allowing covered entities to comply with Section 716 by either building access features into their equipment or services<sup>13</sup> or relying on third party applications, peripheral devices, software, hardware, or customer premises equipment (or "CPE") that is available to individuals with disabilities at nominal cost.<sup>14</sup> If such compliance is not achievable, covered entities must ensure that their equipment and services are compatible with "existing peripheral devices or specialized customer premises equipment" commonly used by persons with disabilities to achieve access, unless it is not achievable to do so.<sup>15</sup> Section 717 requires that the Commission establish new recordkeeping and enforcement procedures for manufacturers and providers subject to Section 255 and Section 716.<sup>16</sup> Appendix D contains the full text of the CVAA as enacted.

5. While Section 255 of the Act will be the starting point for our implementation of these sections, our proposed approach reflects several important differences between Section 255 and Section 716. First, Section 716 covers a broader scope of services and related equipment than Section 255.<sup>17</sup> In addition, relative to Section 255, Section 716 requires a higher standard of achievement for covered entities<sup>18</sup> but also allows for greater flexibility in how to accomplish these requirements.<sup>19</sup> In the NPRM,

(Continued from previous page) \_\_\_\_\_

<sup>9</sup> Federal Communications Commission, *Connecting America: The National Broadband Plan* (rel. Mar. 16, 2010) ("National Broadband Plan" or "NBP"), available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-296935A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-296935A1.pdf).

<sup>10</sup> National Broadband Plan at Recommendation 9.10.

<sup>11</sup> See 47 U.S.C. § 617(e)(1).

<sup>12</sup> See 47 U.S.C. § 617(a)(1), (b)(1).

<sup>13</sup> See 47 U.S.C. §§ 617(a)(2)(A) and (b)(2)(A).

<sup>14</sup> See 47 U.S.C. §§ 617(a)(2)(B) and (b)(2)(B).

<sup>15</sup> See 47 U.S.C. § 617(c).

<sup>16</sup> See 47 U.S.C. § 618(a). The Section 717 requirements also apply to manufacturers and providers subject to Section 718, which provides for the accessibility of mobile phone browsers and is effective three years after enactment of the CVAA. See discussion *infra* at Section VI.

<sup>17</sup> Compare 47 U.S.C. § 255 to 47 U.S.C. § 617. See discussion *infra* at paras. 14, 19-47.

<sup>18</sup> See 47 U.S.C. § 617(g), see also discussion *infra* at para. 67.

<sup>19</sup> See 47 U.S.C. §§ 617(a)(2)(A) and (b)(2)(A), see also 47 U.S.C. § 617(j).

we propose to adopt a new rule part to implement Sections 716 and 717 and to amend the Section 255 rules to incorporate any relevant definitional changes in Section 716 and establish the new recordkeeping and enforcement procedures set forth in Section 717. The regulatory oversight we propose in this proceeding is not intended to prejudge the scope of the Commission's authority in other proceedings that derive from different statutory grants of authority.

6. The NPRM also seeks comment on Section 718,<sup>20</sup> which is effective three years after the date of enactment of the CVAA and requires manufacturers and service providers to make Internet browsers built into mobile phones accessible to people who are blind or have visual impairments. Specifically, the NPRM seeks input on what steps the Commission and stakeholders can take to ensure that manufacturers and service providers can meet their obligations when Section 718 goes into effect in 2013.

## II. BACKGROUND

7. Section 255 of the Act, which was added by the Telecommunications Act of 1996, requires manufacturers of telecommunications equipment and providers of telecommunications services to ensure that their equipment and services are accessible to and usable by people with disabilities, if readily achievable.<sup>21</sup> When the accessibility requirements of Section 255 are not readily achievable, manufacturers and service providers must ensure compatibility with existing peripheral devices or specialized CPE commonly used by individuals with disabilities, if readily achievable.<sup>22</sup> A related provision in Section 251(a)(2) of the Act prohibits a telecommunications carrier from installing network features, functions or capabilities that do not comply with the guidelines and standards established pursuant to Section 255.<sup>23</sup>

8. Section 255 directed the United States Access Board ("Access Board")<sup>24</sup> to work with the Commission to establish guidelines for the accessibility of telecommunications equipment and CPE within 18 months of enactment.<sup>25</sup> In June 1996, the Access Board convened the Telecommunications Access Advisory Committee (TAAC), a federal advisory committee consisting of consumer, industry, and government stakeholders, for this purpose. The TAAC delivered its final report to the Access Board in January 1997,<sup>26</sup> which the Access Board then used to develop its Section 255 guidelines.<sup>27</sup> In September 1999, the Commission adopted a Report and Order adding Parts 6 and 7 to its rules to implement Section

---

<sup>20</sup> 47 U.S.C. § 619.

<sup>21</sup> See 47 U.S.C. §§ 255(b) and (c).

<sup>22</sup> See 47 U.S.C. §§ 255(b) and (c).

<sup>23</sup> 47 U.S.C. § 251(a)(2).

<sup>24</sup> The Access Board is "an independent Federal agency devoted to accessibility for people with disabilities [which] . . . develops and maintains design criteria for the built environment, transit vehicles, telecommunications equipment, and for electronic and information technology." United States Access Board, *About the U.S. Access Board*, <http://www.access-board.gov/about.htm> (last visited February 18, 2011).

<sup>25</sup> 47 U.S.C. § 255(e).

<sup>26</sup> Telecommunications Access Advisory Committee, *Access to Telecommunications Equipment and Customer Premises Equipment by Individuals with Disabilities, Final Report* (Jan. 1997), ("TAAC Report"), <http://www.access-board.gov/telecomm/commrpt/taacrpt.htm#1.1> (last visited January 18, 2011).

<sup>27</sup> *Telecommunications Act Accessibility Guidelines*, 36 C.F.R. §§ 1193 et. seq., <http://www.access-board.gov/telecomm/rule.htm> (last visited January 18, 2011). The Access Board has a continuing obligation to update these guidelines periodically.

255,<sup>28</sup> in large part incorporating the Access Board's guidelines for telecommunications equipment and customer premises equipment ("CPE").<sup>29</sup> In addition to drawing heavily on these guidelines for its Section 255 rules on telecommunications equipment and CPE (in Part 6 of its rules), the Commission utilized the general principles contained in these guidelines to outline the general obligations of telecommunications service providers.<sup>30</sup> In Part 7 of these rules, the Commission also used its ancillary jurisdiction to adopt rules relating to voicemail and interactive voice response providers and equipment manufacturers.<sup>31</sup> In 2007, the Commission extended its Section 255 accessibility rules to interconnected Voice over Internet Protocol ("VoIP") service providers and equipment manufacturers.<sup>32</sup>

9. The rules adopted to implement Section 255 require that where readily achievable, manufacturers and service providers must evaluate the accessibility, usability, and compatibility features of covered services and equipment; incorporate such evaluation throughout product design, development, and fabrication, as early and consistently as possible; and identify barriers to accessibility and usability as part of the product design and development process.<sup>33</sup> The rules also provide that where readily achievable, manufacturers and service providers must ensure that product and service information and documentation provided to customers is accessible to customers with disabilities.<sup>34</sup> In addition, under the rules, equipment manufacturers must "pass through cross-manufacturer, non-proprietary, industry-standard codes, translation protocols, formats or other information necessary to provide telecommunications in an accessible format," where "readily achievable."<sup>35</sup> The rules also contain an

<sup>28</sup> See *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 (1999) ("*Section 255 Report and Order*").

<sup>29</sup> *Section 255 Report and Order*, 16 FCC Rcd at 6422, ¶¶ 9-10.

<sup>30</sup> 47 C.F.R. § 6.5. Section 6.5 of the Commission's rules requires a manufacturer of telecommunications equipment or CPE to ensure that the equipment is designed, developed and fabricated so that the telecommunications functions of the equipment are accessible to and usable by individuals with disabilities, if readily achievable. *Id.* See also 47 C.F.R. § 7.5.

<sup>31</sup> 47 C.F.R. §§ 7.1 *et. seq.*

<sup>32</sup> *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; 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, Report and Order, 22 FCC Rcd 1275 (2007).

<sup>33</sup> 47 C.F.R. § 6.7; *Section 255 Report and Order*, 16 FCC Rcd at 6423, ¶ 16. Section 6.7 of the Commission's rules requires covered entities to (1) evaluate the accessibility, usability, and compatibility of equipment and telecommunications services and incorporate this evaluation throughout the product design stage, development, and fabrication, as early and consistently as possible, (2) identify barriers to accessibility and usability as part of this product design and development process, and (3) in developing such a process, consider such factors as covered entities deem appropriate, including market research, product testing, working cooperatively with disability-related organizations, and testing unproven access solutions. 47 C.F.R. § 6.7. See also 47 C.F.R. § 7.7.

<sup>34</sup> 47 C.F.R. § 6.11(a); *Section 255 Report and Order*, 16 FCC Rcd at 6430, ¶ 23. Section 6.11 of the Commission's rules requires covered entities to ensure access to information and documentation they provide to their customers, if readily achievable. Such information and documentation would include user guides, bills, installation guides for end user installable devices, and product support communications (including as needed in alternate formats), call centers and customer support at no extra cost, regarding both the product generally and the accessibility features of the product. In developing training programs, covered entities are encouraged to consider topics on accessibility requirements, means of communicating with individuals with disabilities, commonly used adaptive technology, designing for accessibility, and solutions for accessibility and compatibility. 47 C.F.R. § 6.11. See also 47 C.F.R. § 7.11.

<sup>35</sup> 47 C.F.R. § 6.9; see also 47 C.F.R. § 7.9.

informal complaint procedure by which manufacturers and service providers must attempt to resolve the complainant's concerns and respond to the Commission within 30 days.<sup>36</sup>

10. In 2006, the Access Board initiated a review of its accessibility guidelines for telecommunications equipment and CPE covered under Section 255 and its standards for electronic and information technology covered under Section 508 of the Rehabilitation Act.<sup>37</sup> Under Section 508, federal agencies must “develop, procure, maintain, and use” electronic and information technologies that are accessible to people with disabilities, unless doing so would cause an undue burden.<sup>38</sup> The goal of this review was to bring the Section 255 and Section 508 guidelines and standards up to date and to harmonize them with each other and international accessibility standards. Again, the Access Board established an advisory board of interested stakeholders for this purpose, and in April 2008, the Telecommunications and Electronic and Information Technology Advisory Committee (“TEITAC”) issued its final report, containing a set of recommended updates to these guidelines and standards.<sup>39</sup> In March 2010, the Access Board released for public comment draft information and communication technology (“ICT”) guidelines and standards,<sup>40</sup> which were based on these stakeholder recommendations.

11. During the spring of 2010, the Consumer and Governmental Affairs Bureau (“CGB”) and the Wireless Telecommunications Bureau (“WTB”) (“the Bureaus”) held two workshops to explore the telecommunications access needs of people with disabilities, along with solutions to address these barriers. At the first of these, held on May 13, 2010, the Commission received feedback on expanding disability access to wireless telecommunications; at the second, held on June 15, 2010, young adults who are deaf-blind discussed the barriers they experience in accessing telecommunications and in obtaining information about accessible technologies.<sup>41</sup>

12. Building on those workshops, on July 19, 2010, the Bureaus issued a Public Notice (“*July Public Notice*”) in CG Docket No. 10-145 expressing the concerns “that people who are blind or have other vision disabilities have few accessible and affordable wireless phone options”<sup>42</sup> and “that many wireless technologies may not be compatible with Braille displays needed by individuals who are deaf-blind.”<sup>43</sup> The *July Public Notice* sought comment on, among other things, the barriers faced by these populations, the cost and feasibility of technical solutions, and the actions that the agency should take to address the current lack of access. The Bureaus received over 200 submissions in the record from consumers, consumer groups, trade associations, and individual companies, many of whom provided details about the lack of access to basic and smart phones. While staff continues to consider the steps the agency should take to address those concerns, we have incorporated the record from the *July Public Notice* into the record of this proceeding because the record in CG Docket No. 10-145 is particularly

<sup>36</sup> 47 C.F.R. §§ 6.16-6.20. *Section 255 Report and Order*, 16 FCC Rcd at 6468, ¶ 126.

<sup>37</sup> Workforce Investment Act of 1998, Pub. L. No. 105-220, 112 Stat 936 (1998) (codified at 29 U.S.C. § 794(d)) (“*Rehabilitation Act*”). The current Section 508 Electronic and Information Technology Accessibility Standards that were the subject of this review are codified at 36 C.F.R. Part 1194, see <http://www.access-board.gov/sec508/standards.htm>.

<sup>38</sup> See *Rehabilitation Act* at Section 508(a)(1)(A).

<sup>39</sup> See <http://www.access-board.gov/sec508/refresh/report/#a1>.

<sup>40</sup> United States Access Board, *Draft Information and Communication Technology (ICT) Standards and Guidelines*, (March 2010), (“Access Board Draft Guidelines”), <http://www.access-board.gov/sec508/refresh/draft-rule.pdf>.

<sup>41</sup> Meeting summary available at <http://fjallfoss.fcc.gov/ecfs/document/view?id=7020511584>.

<sup>42</sup> *Wireless Telecommunications Bureau and Consumer and Governmental Affairs Bureau Seek Comment on Accessible Mobile Phone Options for People Who Are Blind, Deaf-Blind, or Have Low Vision*, CG Docket No. 10-145, DA 10-1324, Public Notice, 25 FCC Rcd 9228 (2010).

<sup>43</sup> *Id.*

relevant and may inform our understanding of the issues raised here, including the difficulties that people with disabilities face in finding accessible products and getting the technical and customer support that they need in today's marketplace.

13. On October 21, 2010, CGB and WTB issued a Public Notice ("*October Public Notice*") seeking input on key provisions in Sections 716, 717, and 718 of the Communications Act, as amended by the CVAA.<sup>44</sup> The Bureaus received 24 comments and 25 reply comments, which have helped to shape the development of this NPRM.

### III. STATUTORY DEFINITIONS

#### A. Scope of Coverage

##### 1. Background

14. Section 716 of the Act covers a broad array of manufacturers of equipment and providers of services that are not covered under Section 255. As discussed in more detail *infra* paras. 19-47, the requirements of Section 716 apply to the manufacturers of equipment used for non-interconnected VoIP services, electronic messaging services, and interoperable video conferencing services (all of which are "advanced communications services" as defined in Section 3(1) of the Act<sup>45</sup>) and the providers of those services. We agree with AT&T's statement that "Section 716 reflects the reality that ACS is delivered in a complex Internet ecosystem"<sup>46</sup> and that "[a]ccessibility obligations must be shared by all entities in that ecosystem for consumers to have an accessible experience."<sup>47</sup> We discuss the evolution of the "complex Internet ecosystem" below and seek further comment on how we should interpret Section 716 requirements, in light of this evolution and the statute's broader purposes of ensuring that ACS and equipment used for ACS is accessible to and usable by people with disabilities.

15. Since Section 255 was first enacted, communication technology has changed significantly, both in terms of its usage of the Internet and packet-switched networks instead of circuit-switched networks and in its common architecture.<sup>48</sup> In many cases, communication devices had a single function and were created by a single manufacturer and often closely tied to a specific communication service or network. As the fixed and mobile Internet has evolved, mass-market communication devices are now often general-purpose computers or devices such as smart phones incorporating aspects of general-purpose computers, with an architecture reflecting the evolution of computer technology. This architecture has been common for personal computers since the 1980s, but has more recently also made its way into mobile devices such as smart phones and tablets, and into entertainment devices such as game consoles and set-top boxes.<sup>49</sup> In all of these cases, systems can be divided into at least five components

---

<sup>44</sup> See *Consumer and Government Affairs Bureau and Wireless Telecommunications Bureau Seek Comment on Advanced Communication Provisions of the Twenty-First Century Communications and Video Accessibility Act of 2010*, CG Docket No. 10-213, DA 10-2029, Public Notice, at 2 (citing Pub. L. No. 111-260, § 101(1)), released October 21, 2010 ("*October Public Notice*").

<sup>45</sup> 47 U.S.C. § 153(1). Although interconnected VoIP service also constitutes an advanced communications service under Section 3(1), such service is subject to Section 255 of the Act and thus need not comply with the requirements of Section 716. See 47 U.S.C. § 617(f).

<sup>46</sup> AT&T Comments at 2.

<sup>47</sup> AT&T Comments at 2-3.

<sup>48</sup> See Kaveh Pahlavan & Prashant Krishnamurthy, *Networking Fundamentals: Wide, Local, & Personal Area Communications* 23-25 (John Wiley and Sons Ltd. 2009).

<sup>49</sup> *Id.* at 21-23. See also <http://www.qualcomm.com/documents/files/evolution-toward-multimode-future.pdf>, at 3, 8-9.

that can be pictured, roughly, as layers, with the hardware at the bottom and the application and services at the top:

- **Hardware** (commonly referred to as the “device”): Every advanced communications service relies on hardware with general-purpose computing functionality. It typically includes a computing component (“CPU”), several kinds of memory, one or more network interfaces (cellular, IEEE 802.11 “WiFi,” Ethernet, Bluetooth, etc.), built-in peripherals such as keyboards and displays, and both generic and dedicated-purpose interfaces to external peripherals. A common example of a generic interface is a USB interface, as it can support just about any input or output technology, from audio to keyboards and cameras. A dedicated-purpose interface can only support one media type, such as audio.
- **Operating system (“OS”)**: The OS manages the system resources enumerated above and provides common functionality, such as network protocols, to applications. Almost all devices with a CPU have an OS.<sup>50</sup>
- **User interface layer**: Most modern devices have a separate user interface (“UI”) layer upon which almost all applications rely to create their graphical user interface. Currently, the OS and user interface layer are typically provided as a package and are often referred to collectively as the OS,<sup>51</sup> but this is not always the case. For example, at least one common OS allows users to replace the user interface layer.<sup>52</sup> In many cases, web browsers are considered to be part of the UI layer although they themselves are also an application.
- **Application** (commonly referred to as an “app”<sup>53</sup>): Software is used to implement the actual advanced communications functionality. The software may be embedded into the device and non-removable,<sup>54</sup> installed by the system integrator or user, or reside in the cloud.<sup>55</sup>
- **Network services**: Advanced communication applications, such as VoIP, rely on network services<sup>56</sup> to interconnect users. These networks perform many functions, ranging from user authentication and authorization to call routing and media storage.<sup>57</sup> In many cases, such network

<sup>50</sup> See William Stallings, *Operating Systems, Internals and Design Principles*, 51-55 (Pearson and Prentice Hall 2009); Abraham Silberschatz, Peter B. Galvin & Greg Gagne, *Operating System Concepts*, 3-5 (Wiley 8<sup>th</sup> ed. 2008).

<sup>51</sup> William Stallings, *Operating Systems, Internals and Design Principles*, 51, 84-86 (Pearson and Prentice Hall 2009).

<sup>52</sup> See Technofunction, *Separation of the GUI and Linux Kernel*, (March 25, 2010), <http://www.technofunction.com/2010/03/separation-of-the-gui-and-linux-kernel/>.

<sup>53</sup> For example, mobile applications for iPhone can be downloaded by accessing <http://www.apple.com/iphone/features/app-store.html>. Similarly, many computer software applications can be purchased and downloaded via an Internet access.

<sup>54</sup> See Media Phone by Intel Corporation. <http://edc.intel.com/Applications/Embedded-Connected-Devices/>.

<sup>55</sup> Cloud computing is a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction. Peter Mell and Tim Grance, *The NIST Definition of Cloud Computing*, Version 15, 10-7-09, National Institute of Standards and Technology, Information Technology Laboratory, <http://csrc.nist.gov/groups/SNS/cloud-computing/index.html> (last visited February 18, 2011).

<sup>56</sup> The term “network services” is used here to indicate distributed functionality in the context of a computing architecture.

<sup>57</sup> The networks may also provide the advanced communication applications. For next generation network architecture and a comparison to legacy networks see [http://www.itu.int/ITU-D/asp/CMS/Events/2010/NGN-Philippines/S3-NGN\\_architecture.pdf](http://www.itu.int/ITU-D/asp/CMS/Events/2010/NGN-Philippines/S3-NGN_architecture.pdf). For mobile network architecture see Harri Holma and Antti Toskala, *LTE for UMTS OFDMA and SC-FDMA Based Radio Access* 46 (Wiley 2009) (summary available at <http://onlinelibrary.wiley.com/book/10.1002/9780470745489>).

services simply route the call signaling information and do not touch the actual media exchanged. In these cases, the service itself may not know or care what kind of media (audio, video, text) is exchanged between communicating end systems. In other cases, the network services may perform more than transport functions and offer video, voice, and other data capabilities.<sup>58</sup>

While the particulars of the above components have evolved, the basic architecture has remained stable for several decades and there are no obvious successors under development in the research community. Thus, it appears reasonably safe to assume that this division will continue for the immediate future, although we note that the components listed above overlap with each other.

16. Because each of the above components may be created by a different manufacturer and sold separately, this division has three major consequences. First, a manufacturer or provider of one component may have limited ability to know which other components are being used to deliver an advanced communications service. For example, a PC- and web-based collaboration service can run on most personal computers, using an almost infinite set of combinations of hardware, operating systems, and web browsers. Second, components of the service can change over time. Users can often upgrade their hardware, OS, or application, without consulting with the manufacturer or provider of the other components. Third, the accessibility features of each component are likely to evolve over time. Manufacturers of hardware, OS, and user interface layers may not know whether the components they produce will be used for advanced communications services in the future and for which ones.

17. In order to enable individuals with disabilities to use an advanced communications service, *all* of the components may have to support accessibility features and capabilities. Conversely, if one component does not offer a particular function, it is often impossible for another component to compensate for that omission. For example, only the hardware component can support an audio jack or a connection to an external Braille device, while only the OS and user interface layer can enable screen readers. In addition, it should be noted that while upper layers cannot make up for the lack of accessibility features at the lower layers, they can impede their use. For example, an application could render text in such a way that screen readers or Braille devices cannot function, e.g., to protect content against extraction as part of digital rights management functionality. While this environment complicates the ability to implement capabilities that support people with disabilities, we also recognize that these challenges are inherent in the design of any mass-market application or hardware device. At the same time, we recognize that this environment also has the potential to provide new solutions for people with disabilities which were not previously possible.

18. We seek comment on whether the above description accurately reflects the basic architecture and components involved in the delivery of ACS. Below, we seek comment on how we should interpret the statute's directives, in light of the architecture and components discussed above.

## **2. Manufacturers of Equipment Used for Advanced Communications Services**

19. Section 716(a) of the Act provides that, with respect to equipment manufactured after the effective date of applicable regulations established by the Commission and subject to those regulations, the accessibility obligations apply to a "manufacturer of equipment used for advanced communications services, including end user equipment, network equipment, and software . . . that such manufacturer offers for sale or otherwise distributes in interstate commerce."<sup>59</sup>

20. We first seek comment on the meaning of the term "manufacturer." We note that in our

---

<sup>58</sup> The network features may provide priority transmissions for latency sensitive applications, such as video and audio, over e-mail, for example.

<sup>59</sup> See 47 U.S.C. § 617(a)(1). With regard to the "achievable" standard, see Section III.B.1 *infra*.

Section 255 rules we define “manufacturer” as “an entity that makes or produces a product.”<sup>60</sup> In the *Section 255 Report and Order*, we found that “[t]his definition puts responsibility on those who have direct control over the products produced, and provides a ready point of contact for consumers and the Commission in getting answers to accessibility questions and resolving complaints.”<sup>61</sup> We propose to adopt the same definition of “manufacturer” in our Section 716 rules and seek comment on this proposal.

21. We also seek comment on the meaning of “end user equipment,” “network equipment,” and “software,” as those terms are used in Section 716(a). We propose to define “end user equipment” as including hardware as described above; “software” includes the OS, the user interface layer, and applications, as described above, that are installed or embedded in the end user equipment by the manufacturer of the end user equipment or by the user; and “network equipment” includes equipment used for network services, as described above. We seek comment on whether upgrades to the software (OS, user interfaces, or applications) by manufacturers are encompassed in these definitions. We also seek comment on whether there are any circumstances in which a manufacturer of end user equipment would be responsible for the accessibility of software that is installed or downloaded by the user. In particular, we seek comment on commenters’ assertions that the limitations on liability in Section 2(a) of the CVAA generally preclude manufacturers from being liable for third party applications that are installed or downloaded by the consumer.<sup>62</sup>

22. In addition, we seek comment on the meaning of the phrase “used for advanced communications services” in Section 716(a), for the purposes of determining a manufacturer’s obligations under this section.<sup>63</sup> As a general matter, must equipment subject to Section 716(a) be capable of offering ACS on a standalone basis or merely support ACS in some way? If the former, then how should this standard be applied, for example, to Internet-enabled ACS intended to run on separately distributed general computing platforms?

23. We also seek comment on the meaning of “offers for sale or otherwise distributes in interstate commerce” by “such manufacturer.”<sup>64</sup> Hardware, as described above, commonly meets this definition. We seek comment on whether other components that are used for advanced communications services are offered for sale or otherwise distributed in interstate commerce by the manufacturer when installed or embedded by the manufacturer. We propose to treat generally the act of a manufacturer’s making software available for download as a form of distribution. We seek comment, however, for purposes of the CVAA, on what should constitute making software available for download.

24. We propose to hold manufacturers of end user equipment responsible for the accessibility of their products, including the software, such as the OS, the user interface layer, and the applications that they install. We also propose to find manufacturers of software used for advanced communications services that is offered for sale or otherwise distributed in interstate commerce by such manufacturers and that is downloaded or installed by the user as being covered by Section 716(a).

---

<sup>60</sup> 47 C.F.R. § 6.3(f).

<sup>61</sup> *Section 255 Report and Order*, 16 FCC Rcd at 6454, ¶ 90.

<sup>62</sup> See CEA Comments at 15 and 19-20, CTIA Reply Comments at 15, Motorola Comments at 6-7. Section 2(a) of the CVAA provides that the requirements of the CVAA do not apply to any person who “transmits, routes, or stores in intermediate or transient storage the communications made available through the provision of [ACS] by a third party” or who “provides an information location tool, such as a directory, index, reference, pointer, menu, guide, user interface, or hypertext link, through which an end user obtains access to such video programming, online content, applications, services, [ACS], or equipment used to provide or access [ACS].” See Pub. L. No. 111-260, Section 2(a). These limitations on liability do not apply “to any person who relies on third party applications, services, software, hardware, or equipment to comply with the requirements of the [CVAA].” *Id.* at Section 2(b).

<sup>63</sup> 47 U.S.C. § 617(a)(1).

<sup>64</sup> 47 U.S.C. § 617(a)(1).

### 3. Providers of Advanced Communications Services

25. Section 716(b)(1) of the Act provides that, with respect to service providers, after the effective date of applicable regulations established by the Commission and subject to those regulations, a “provider of advanced communications services shall ensure that such services offered by such provider in or affecting interstate commerce are accessible to and usable by individuals with disabilities,” unless these requirements are “not achievable.”<sup>65</sup>

26. In the *Section 255 Report and Order*, the Commission found that providers of telecommunications services include resellers and aggregators.<sup>66</sup> The Commission's decision was based on its interpretation of the statutory definition of “telecommunications carrier” as defined in Section 3(51) of the Act. Specifically, the Commission noted that “[section 3(51)] states that a ‘telecommunications carrier’ means any ‘provider of telecommunications services’ with the exception of aggregators, thus indicating that a ‘provider of telecommunications services’ would otherwise include aggregators.”<sup>67</sup> While the CVAA does not provide similar guidance with respect to the definition of “provider” of ACS, we believe that the general principle that the Commission adopted in the *Section 255 Report and Order* – that “Congress intended to use the term ‘provider’ broadly . . . to include all entities that make telecommunications services available” – has applicability here.<sup>68</sup> Accordingly, we propose to find providers of ACS to include all entities that make ACS available in or affecting interstate commerce, including resellers and aggregators. We seek comment on this proposal.

27. We also seek comment on additional issues relating to the meaning of “providers of advanced communications services.”<sup>69</sup> We propose to find such providers to include entities that provide ACS over their own networks as well as providers of applications or services accessed (*i.e.*, downloaded and run) by users over other service providers’ networks, as long as these providers make advanced communications services available in or affecting interstate commerce. We also seek comment on whether there are any circumstances in which a service provider would be responsible for the accessibility of third party services and applications or whether the liability provisions in Section 2(a) of the CVAA<sup>70</sup> would generally preclude such a result.<sup>71</sup> We seek comment on these proposed approaches and on whether the fact that we are required under Section 716(e)(1)(C) to “determine the obligations under this section of manufacturers, service providers, and providers of applications or services accessed over service provider networks”<sup>72</sup> should have any bearing on how we interpret the meaning of providers of ACS. Specifically, we seek comment on the meaning of “providers of applications or services accessed over service provider networks” and how this term differs from “providers of advanced communications services.”<sup>73</sup> Finally, we also seek comment on the meaning of “in or affecting interstate commerce.”<sup>74</sup> Are there any circumstances in which advanced communications services that are downloaded or run by the user would not meet this definition?

---

<sup>65</sup> See 47 U.S.C. § 617(b)(1).

<sup>66</sup> *Section 255 Report and Order*, 16 FCC Rcd at 6450, ¶ 80.

<sup>67</sup> 47 U.S.C. § 153(51).

<sup>68</sup> *Section 255 Report and Order*, 16 FCC Rcd at 6450, ¶ 80.

<sup>69</sup> 47 U.S.C. § 617(b)(1).

<sup>70</sup> See Pub. L. No. 111-260, Section 2.

<sup>71</sup> See CEA Comments at 15 and 19-20; CTIA Reply Comments at 15; Motorola Comments at 6-7.

<sup>72</sup> 47 U.S.C. § 617(e)(1)(C).

<sup>73</sup> 47 U.S.C. § 617(b)(1).

<sup>74</sup> 47 U.S.C. § 617(b)(1).

#### 4. Advanced Communications Services

28. Section 3(1) of the Act defines “advanced communications services” to mean (A) interconnected VoIP service; (B) non-interconnected VoIP service; (C) electronic messaging service; and (D) interoperable video conferencing service.<sup>75</sup> That provision sets forth definitions for each of these terms.<sup>76</sup>

##### a. Interconnected VoIP Service

29. Section 3(25) of the Act, as added by the CVAA, provides that the term “interconnected VoIP service” has the meaning given in section 9.3 of the Commission's rules, as such section may be amended.<sup>77</sup> Section 9.3, in turn, defines interconnected VoIP as a service that (1) enables real-time, two-way voice communications; (2) requires a broadband connection from the user's location; (3) requires Internet protocol-compatible CPE; and (4) permits users generally to receive calls that originate on the public switched telephone network (“PSTN”) and to terminate calls to the PSTN.<sup>78</sup> We propose to continue to define interconnected VoIP in accordance with section 9.3 of the Commission's rules. We seek comment on this proposal.

30. Section 716(f) of the Act provides that “the requirements of this section shall not apply to any equipment or services, including interconnected VoIP service, that are subject to the requirements of Section 255 on the day before the date of enactment of the Twenty-First Century Communications and Video Accessibility Act of 2010.”<sup>79</sup> In the *October Public Notice*, the Bureaus sought comment on how to address the accessibility obligations of equipment that is used to provide both telecommunications and advanced communications services and how to treat interconnected VoIP.<sup>80</sup> As some commenters noted,<sup>81</sup> this language clearly provides that interconnected VoIP equipment and services shall remain subject to Section 255. In its comments, AT&T states that “the Commission should subject multi-purpose devices to Section 255 to the extent that the device provides a service that is already subject to Section 255 and apply Section 716 solely to the extent that the device provides ACS that is not otherwise subject to Section 255.”<sup>82</sup> We seek comment on AT&T's interpretation and also seek comment on alternative interpretations of Section 716(f).

##### b. Non-interconnected VoIP Service

31. Section 3(36) of the Act, as added by the CVAA, states that the term “non-interconnected VoIP service” means a service that “(i) enables real-time voice communications that originate from or terminate to the user's location using Internet protocol or any successor protocol; and (ii) requires Internet protocol compatible customer premises equipment” and that “does not include any service that is an interconnected VoIP service.”<sup>83</sup> We propose to define “non-interconnected VoIP service” in our rules in the same way and seek comment on this proposal.

32. TIA asserts that “offerings with a purely incidental VoIP component (e.g., gaming systems or private internal enterprise systems) . . . are . . . not subject to the Accessibility Act in the first

---

<sup>75</sup> 47 U.S.C. § 153(1).

<sup>76</sup> See 47 U.S.C. §§ 153(19), (25), (27), (36).

<sup>77</sup> 47 U.S.C. § 153(25). 47 C.F.R. § 9.3.

<sup>78</sup> 47 C.F.R. § 9.3.

<sup>79</sup> See 47 U.S.C. § 617(f).

<sup>80</sup> *October Public Notice* at 2-5.

<sup>81</sup> See Verizon Comments at 2; Vonage Comments at 2-3; Vonage Reply Comments at 2; CTIA Comments at 7.

<sup>82</sup> AT&T Comments at 5.

<sup>83</sup> 47 U.S.C. § 153(36).

instance.”<sup>84</sup> We propose to treat any offering that meets the criteria of the statutory definition set forth above as a “non-interconnected VoIP service,” and note that the statutory definition of non-interconnected VoIP does not exclude offerings with a purely incidental VoIP component. We seek comment on this proposal. We also note that, as discussed below, the statute allows the Commission to waive the requirements of Section 716 for equipment or services “designed primarily for purposes other than using advanced communications service.”<sup>85</sup> In addition, as discussed below, Section 716(i) provides that the requirements of this Section do not apply to “customized equipment or services that are not offered directly to the public.”<sup>86</sup>

### c. Electronic Messaging Service

33. Section 3(19) of the Act, as added by the CVAA, states that the term “electronic messaging service” “means a service that provides real-time or near real-time non-voice messages in text form between individuals over communications networks.”<sup>87</sup> In accordance with this definition, we propose to define this term in the Commission’s rules as “a service that provides real-time or near real-time non-voice messages in text form between individuals over communications networks.”<sup>88</sup> Consistent with language of the Senate and House Reports, we also propose that electronic messaging service includes “more traditional, two-way interactive services such as text messaging, instant messaging, and electronic mail, rather than . . . blog posts, online publishing, or messages posted on social networking websites.”<sup>89</sup> We seek comment on these proposed definitions. For reasons similar to those discussed below in the section on interoperable video conferencing services at paragraph 35, *infra*, we believe that Internet protocol relay (“IP Relay”)<sup>90</sup> services that otherwise fit the definition of “electronic messaging services” are services subject to the requirements of Section 716.

34. We also seek comment on the assertion of several commenters that the phrase “between individuals” in the above definition precludes the application of the accessibility requirements to

<sup>84</sup> TIA Comments at 6, citing *Cable Modem Declaratory Ruling* at ¶ 39; *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853, ¶ 16 (2005), *aff’d* *Time Warner Telecom, Inc. v. FCC*, 507 F.3d 205 (3d Cir. 2007); *Appropriate Regulatory Treatment for Broadband Access to the Internet Over Wireless Networks*, Declaratory Ruling, 22 FCC Rcd 5901, ¶ 21 (2007) (broadband Internet access does not necessarily include a stand-alone offering of telecommunication service). See also Microsoft Comments at 4-6; CEA Comments at i; VON Coalition Comments at 9-10; ESA Comments at 1, 3-4, and 8-10; ESA Reply Comments at 1-2; CTIA Comments at 5-6; T-Mobile Comments at 2-3 and 6-7.

<sup>85</sup> See 47 U.S.C. § 617(h).

<sup>86</sup> See 47 U.S.C. § 617(i).

<sup>87</sup> 47 U.S.C. § 153(19).

<sup>88</sup> Senate Report at 18.

<sup>89</sup> Senate Report at 9; House Report at 23.

<sup>90</sup> IP Relay is a form of telecommunications relay services (“TRS”) under Section 225 of the Act that enables individuals who are deaf or hard of hearing or who have a speech disability to communicate over distances with voice telephone users through a remotely located “communications assistant” (“CA”). IP Relay users connect to the IP Relay center via the Internet by using a computer or other web-based device. The CA then relays the conversation between the parties – in text with the deaf or hard of hearing individual (the “text leg”), and by voice with the telephone user (the “telephone leg”). Voice telephone users can also initiate IP Relay calls by simply dialing the telephone number of the person who uses text. The call is then automatically connected to a CA, who then relays the conversation. See Consumer and Governmental Affairs Bureau, FCC Consumer Facts, *IP Relay Service* at <http://www.fcc.gov/cgb/consumerfacts/iprelay.html> (last updated May 6, 2010). In the vast majority of cases, IP Relay calls are between deaf and hard of hearing persons and persons who are hearing. The CVAA, however, expands the definition of TRS to allow IP Relay conversations also to take place with persons who may also have a hearing or speech disability but who use other forms of TRS. Pub. L. No. 111-260, § 103.

communications in which no human is involved, such as automatic software updates or other device-to-device or machine-to-machine communications.<sup>91</sup> In addition, we seek comment on TIA's assertion that "services and applications that merely provide access to an electronic messaging service, such as a broadband platform that provides an end user access to an HTML-based e-mail service, are not covered."<sup>92</sup>

#### d. Interoperable Video Conferencing Service

35. Section 3(1) of the Act, as added by the CVAA, defines the term "advanced communications services" to include "interoperable video conferencing service," which, in turn, is defined in Section 3(27) as "a service that provides real-time video communications, including audio, to enable users to share information of the user's choosing."<sup>93</sup> We note that while earlier versions of the legislation did not include the word "interoperable" in the definition of the term "advanced communications services," the definition of "interoperable video conferencing services" in the enacted legislation is identical to the definition of "video conferencing services" found in earlier versions.<sup>94</sup> In addition, language in the Senate Report regarding "interoperable video conferencing services" is identical to language in the House Report regarding "video conferencing services."<sup>95</sup> Both the Senate Report and the House Report state, for example, that "[t]he inclusion . . . of these services within the scope of the requirements of this act is to ensure, in part, that individuals with disabilities are able to access and control these services"<sup>96</sup> and that "such services may, by themselves, be accessibility solutions."<sup>97</sup> In light of the above symmetries between the earlier and later versions of this definition, as well as the reports prepared by each chamber of Congress, we will first seek comment on the meaning of "video conferencing service" and then on the meaning of "interoperable" in this context.

#### i. Video Conferencing Service

36. We first seek comment on what services meet the statutory definition of "providing . . . real-time video communications, including audio, to enable users to share information of the user's choosing" and what end user equipment, network equipment, and software are used for these services. We propose to classify a range of services and end user equipment under this statutory definition, including, but not limited to, videophones and software applications used for conversation between and among users. Such end user equipment includes smart phones and computers with the capability of using interactive video, text and audio conferencing applications such as the Apple iPhone 4.0, Motorola Droid X and computers and videophones such as ASUS Skype, Grandstream, Ojo, and Polycom. Examples of video conferencing software applications include, for example, Google Voice & Video Chat, ooVoo, AOL Instant Message ("AIM") Chat, WebEx, and Skype. We seek comment on this proposal.

37. We also seek comment on whether video relay services ("VRS") meet the above definition. VRS is a form of TRS under Section 225 of the Act that enables individuals who are deaf or

---

<sup>91</sup> CEA Comments at 7; TIA Comments at 7-8; Microsoft Comments at 3, n.4; ITI Comments at 4; and T-Mobile Comments at 3. Unlike person-to-person or person-to-machine interactions, machine-to-machine interactions are processes where the communications occur solely between two or more machines. For example, blood pressure measurement devices attached to a wireless modem can transmit information to another modem attached to a medical center server that collects information on patients. No human intervention is involved as these systems operate automatically.

<sup>92</sup> TIA Comments at 8.

<sup>93</sup> 47 U.S.C. § 153(1), (27), *see also* Pub. L. No. 111-260, § 101(1) (amending Section 3 of the Act).

<sup>94</sup> *See* S. 3304 and H.R. 3101.

<sup>95</sup> *See* Senate Report at 18 and House Report at 38.

<sup>96</sup> *See* Senate Report at 6 and House Report at 25.

<sup>97</sup> *Id.*

hard of hearing and who use American Sign Language to communicate over distances with voice telephone users through a remotely located sign language interpreter called a CA.<sup>98</sup> The person who is deaf or hard of hearing makes a VRS call using video equipment (a television or a computer with a video camera device) that connects such individual with the CA over a broadband connection. The CA then relays the conversation between the parties – in sign language with the VRS user (the “video leg”), and by voice with the telephone user (the “telephone leg”).<sup>99</sup> Voice telephone users can also initiate VRS calls by simply dialing the telephone number of the person who uses sign language. The call is then automatically connected to a CA, who then relays the conversation.<sup>100</sup>

38. Commenters disagree about whether the CVAA covers the video conferencing service and equipment used in the provision of VRS. Sorenson cites to the legislative history and submits that “Section 716 was intended to cover mass market services and equipment (such as personal computers and smart phones) that have not been designed for use by people with disabilities, not services and equipment (such as VRS and point-to-point) that have been designed specifically to be accessible to and usable by persons with disabilities.”<sup>101</sup> Consumer Groups<sup>102</sup> disagree, stating that “VRS equipment and [video conferencing] services . . . should be made accessible in accordance with the Accessibility Act, if achievable.”<sup>103</sup> Sorenson also asserts that the phrase “including audio” in the definition suggests the exclusion of VRS “video conferencing service” or equipment.<sup>104</sup> Consumer Groups reject Sorenson’s assertion because widely distributed VRS equipment includes audio functions that “benefit users who engage in voice carryover (‘VCO’) and hearing carryover (‘HCO’).”<sup>105</sup>

39. We agree with Consumer Groups and believe that the “video leg” of a VRS call meets the statutory definition of “provid[ing] . . . real-time video communications, including audio, to enable users to share information of the user’s choosing.”<sup>106</sup> Just as a voice telephone user uses telecommunications services and equipment to communicate with the VRS CA (the “telephone leg” of a VRS call), we

<sup>98</sup> See Consumer and Governmental Affairs Bureau, FCC Consumer Facts, *Video Relay Services*, available at <http://www.fcc.gov/cgb/consumerfacts/videorelay.html> (last updated May 6, 2010).

<sup>99</sup> *Id.*

<sup>100</sup> In the vast majority of cases, VRS calls are between deaf and hard of hearing persons who use sign language and persons who are hearing. However, the CVAA expands the definition of TRS to allow VRS conversations to also take place with persons who may also have a hearing or speech disability but who use other forms of TRS. Pub. L. No. 111-260, § 103.

<sup>101</sup> Sorenson Comments at 2, *citing* the House Report at 19.

<sup>102</sup> Consumer Groups is a coalition consisting of the National Association of the Deaf (“NAD”), Telecommunications for the Deaf and Hard of Hearing, Inc. (“TDI”), Hearing Loss Association of America (“HLAA”), Association of Late-Deafened Adults (“ALDA”), American Association of the Deaf-Blind (“AADB”), Deaf and Hard of Hearing Consumer Advocacy Network (“DHHCAN”), and California Coalition of Agencies Serving the Deaf and Hard of Hearing (“CCASDHH”). See Consumer Group Comments at 1.

<sup>103</sup> Consumer Group Reply Comments at 6.

<sup>104</sup> Sorenson Comments at 3-4.

<sup>105</sup> Consumer Groups Reply Comments at 6-7. Voice Carry Over (“VCO”) is a “type of TRS that allows a person with a hearing disability, but who wants to use his or her own voice, to speak directly to the called party and receive responses in text from the CA.” Hearing Carry Over (“HCO”) is a “type of TRS that allows a person with a speech disability, but who wants to use his/her own hearing, to listen to the called party and type his/her part of the conversation on a TTY.” See Consumer and Governmental Affairs Bureau, FCC Consumer Facts, *Telecommunications Relay Services*, available at <http://www.fcc.gov/cgb/consumerfacts/trs.html> (last updated May 7, 2010).

<sup>106</sup> 47 U.S.C. 153(27) (providing definition of “interoperable video conferencing service”).

propose to find that a VRS consumer uses video conferencing services and equipment to communicate with the VRS CA (the “video leg” of a VRS call). We find nothing in the statute or the legislative history to suggest that providers of video conferencing services and manufacturers of equipment used for VRS who otherwise are covered under the CVAA should be excluded from its requirements simply because their services are a kind of TRS provided pursuant to Section 225 of the Act. While VRS equipment and services are specifically designed for people who are deaf or hard of hearing and use sign language, they are not necessarily designed for those who have additional disabilities as well (*e.g.*, individuals who are deaf and have low vision, a mobility, or dexterity disability). We do not believe this interpretation will in any way diminish or change the obligations of VRS providers that are contained in Part 64 of the Commission's rules.<sup>107</sup> We seek further comment on this issue and on whether such an interpretation would create any difficulties or conflicts in our implementation of the VRS program.

40. We note that consumers who are deaf or hard of hearing also use video equipment distributed by VRS providers for point-to-point calls with other users of this equipment. We believe that such point-to-point calling also meets the CVAA's statutory definition of “providing . . . real-time video communications, including audio, to enable users to share information of the user's choosing,” and seek comment on this analysis.

41. We also seek further comment on whether webinars<sup>108</sup> are a covered service. TIA states that “a service that enables users to share information necessarily implies a two-way service, not a broadcast-style webinar video.”<sup>109</sup> The IT and Telecom RERCs disagree, however, asserting that webinar systems should be subject to Section 716 because these systems are “not designed to broadcast information but rather to provide user interaction in the form of chat, voting, and hand-raising, etc.”<sup>110</sup>

42. Next, we seek comment on Consumer Groups' assertion that “the scope of the [CVAA] should not be limited by the type of communication conveyed by the video conferencing service (*i.e.*, uni-, bi-, or multi-directional), but by the fact that the service is *capable* of providing real-time communications that enable users to share information.”<sup>111</sup> Consumer Groups suggest, for example, that the fact that “video conferencing services may be used to leave a ‘video mail’ (similar to a ‘voice mail’) message,” does not preclude the service's coverage under the CVAA.<sup>112</sup> Consistent with our seeking comment on how to treat multi-purpose devices at para. 30, *supra*, we seek comment on Consumer Groups' suggestion. We also seek comment more generally on whether services that otherwise meet the definition of “provid[ing]. . . real-time video communications, including audio, to enable users to share information of the user's choosing” but that also provide non-real time functions (such as video mail) are

---

<sup>107</sup> Part 64 lays out mandatory minimum standards for VRS providers, including requirements for a minimum speed of answer, emergency call handling requirements, and mandates for ten-digit numbering. See 47 C.F.R. §§ 64.604 *et. seq.* These various obligations will remain untouched by this proceeding and will not be subject to the achievability standard discussed below. See *infra* at Section III.B.1.

<sup>108</sup> Short for “Web-based seminar,” a Webinar is a presentation, lecture, workshop or seminar that is transmitted over the Web. A key feature of a Webinar is its interactive elements -- the ability to give, receive and discuss information. Contrast this definition with a Webcast, in which the data transmission is one way and does not allow interaction between the presenter and the audience. Webopedia, *Webinar*, (last visited Feb. 7, 2011), <http://www.webopedia.com/TERM/W/Webinar.html>. See also <http://www.asme.org/Education/Courses/Webinars/Webinar.cfm>

<sup>109</sup> TIA Comments at 8. See also Verizon Comments at 3 and VON Coalition Comments at 11.

<sup>110</sup> IT and Telecom RERCs Reply Comments at 4 (adding that, while conceivable that webinar systems “could be used in a one-way communication scenario, they are designed specifically to allow two-way information transfer and are most often used in this fashion”).

<sup>111</sup> Consumer Groups Reply Comments at 5 (emphasis in the original).

<sup>112</sup> *Id.*

covered under the CVAA.<sup>113</sup> If so, are the non-real-time functions or near-real-time functions of such a service (such as video mail) subject to the requirements of Section 716? If such functions are not covered, should we, similar to what we did in the Section 255 context, assert our ancillary jurisdiction to cover video mail?<sup>114</sup> Specifically, the Commission employed its ancillary jurisdiction to extend the scope of Section 255 to both voice mail and interactive menu services under Part 7 of the Commission's rules because "the failure to ensure accessibility of voicemail and interactive menu services, and the related equipment that performs these functions, would [have] seriously undermined the accessibility and usability of telecommunications services required by sections 255 and 251(a)(2)."<sup>115</sup> Similarly, we seek comment on whether the exclusion of video mail from our rules governing Section 716 would hinder our ability to ensure the accessibility and usability of advanced communications services.

43. TIA also asserts, similar to the argument that it made with respect to the scope of VoIP services covered under the CVAA, that "products that offer a video connection that is incidental to the principal purpose and nature of the end user offering fall outside the definition as well."<sup>116</sup> We believe the same analysis that we propose to apply to the scope of non-interconnected VoIP should apply here.<sup>117</sup> We therefore propose to classify any offering that meets the criteria of the statutory definition set forth above as a "video conferencing service" and note that the statutory definition does not exclude "products that offer a video connection that is incidental to the principal purpose and nature of the end user offering." Again, we note that this issue may be relevant to our waiver authority set forth in Section 716(h), discussed *infra* at paras. 52-60, or the exclusion of customized equipment or services pursuant to Section 716(i).<sup>118</sup> We seek comment on this proposed classification.

## ii. Interoperable

44. We seek further comment on the meaning of "interoperable" in the term "interoperable video conferencing service," again noting the symmetries of the definition and interpretation of this term in the various drafts of the CVAA and the legislative history of this law. Commenters appear to be divided on the significance of this term. ITI asserts that the inclusion of the modifier "interoperable" after earlier versions of the legislation did not include the word "strongly suggests that Congress consciously decided to target only a subset of all video conferencing services."<sup>119</sup> TIA urges an interpretation of the word "interoperable" to mean that a video conferencing service must operate "inter-platform, inter-network, and inter-provider" before it is subject to the accessibility provisions of the CVAA.<sup>120</sup> Similarly, CEA concludes that "most nascent two-way video services and applications commercially available in the marketplace have not yet reached true interoperability and are not covered

---

<sup>113</sup> 47 U.S.C. § 153(27) (providing definition of "interoperable video conferencing service").

<sup>114</sup> See *Section 255 Report and Order*, 16 FCC Rcd at 6455-6462, ¶¶ 93-108 (The Commission relied on an assertion of ancillary jurisdiction to achieve its policy objective of ensuring accessibility and usability for persons with disabilities in extending the requirements of Section 255 to two information services, voicemail and interactive menu service, that it found critical to making telecommunications services and equipment accessible and usable).

<sup>115</sup> See *Section 255 Report and Order*, 16 FCC Rcd at 6459, ¶ 103.

<sup>116</sup> TIA Comments at 9.

<sup>117</sup> See para. 32, *supra* (proposing to classify any offering that meets the criteria of the statutory definition of "non-interconnected VoIP" as "non-interconnected VoIP" and noting that the statutory definition does not exclude offerings with a purely incidental VoIP component).

<sup>118</sup> 47 U.S.C. § 617(i).

<sup>119</sup> ITI Comments at 3; see also TIA Comments at 8-9; CEA Comments at 7-8; and VON Coalition Comments at 11-12.

<sup>120</sup> TIA Comments at 8.

by the statute.”<sup>121</sup> However, Consumer Groups believe that “interoperable” should be interpreted to achieve a broad application of the requirements of the CVAA.<sup>122</sup> Similarly, the RERC-IT urges that the inclusion of the word “interoperable” suggests a broad application of the CVAA so that “all video conferencing services are covered and that they should be made interoperable.”<sup>123</sup> Other commenters express concerns about the current lack of interoperability of video conferencing services, *i.e.*, that consumers are not able to make point-to-point calls using different video conferencing programs.<sup>124</sup>

45. We are concerned that limiting coverage of this provision to only currently available video conferencing services that are “inter-platform, inter-network, and inter-provider” may undermine the statute’s intent to the extent the definition results in little or no video conferencing service or equipment being “interoperable.” We note that “video conferencing service” in the legislative history and “interoperable video conferencing service” in the statute have the exact same definition.

46. We seek comment on how to define “interoperable” in a manner that is faithful to both the statutory language and the broader purposes of the CVAA. Specifically, we seek comment on how the Commission should define interoperable video conferencing services within the scope of covered services to ensure that “such services may, by themselves, be accessibility solutions”<sup>125</sup> and “that individuals with disabilities are able to access and control these services”<sup>126</sup> as Congress intended. For example, which characteristics of video conferencing services and equipment, including software, should determine “interoperability”?

47. The Commission requires VRS services and equipment to be “interoperable” for the provision of VRS under Section 225 of the Act.<sup>127</sup> The Commission also requires video conferencing services and equipment used for point-to-point calls between VRS equipment users to be “interoperable”<sup>128</sup> under the authority of ancillary jurisdiction.<sup>129</sup> These interoperability requirements pertain only to VRS providers and equipment used by registered VRS users for VRS and point-to-point communications and do not require interoperability among VRS and other platforms, networks, or providers. Consumer Groups assert that even these limited requirements represent “a model of interoperable video conferencing services and equipment [that should be] emulated by other manufacturers and service providers.”<sup>130</sup> We seek comment on whether how we define interoperability in

---

<sup>121</sup> CEA Comments at 8.

<sup>122</sup> Consumer Groups Reply Comments at 4.

<sup>123</sup> RERC-IT Comments at 3-4.

<sup>124</sup> *See e.g.*, Convo Comments at 3, noting, for example, that a consumer using Yahoo Messenger cannot connect with a consumer using Adobe Flash. *See also* Consumer Groups Comments at 2-3.

<sup>125</sup> *Id.*

<sup>126</sup> Senate Report at 6; House Report at 25.

<sup>127</sup> “All VRS consumers should be able to place a VRS call through any of the VRS providers’ service, and all VRS providers should be able to receive calls from, and make calls to, any VRS consumer.” *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, Declaratory Ruling and Further Notice of Proposed Rulemaking, 21 FCC Rcd 5442 (2006) at ¶ 1.

<sup>128</sup> *Telecommunications Relay Services and Speech-to-Speech Services for Individuals With Hearing and Speech Disabilities*, CG Docket No. 03-123 and CC Docket No. 98-67; *E911 Requirements for IP-Enhanced Service Providers*, WC Docket No. 05-196, Second Report and Order and Order on Reconsideration, 24 FCC Rcd 791, 820 ¶ 65 (2008).

<sup>129</sup> The Commission recognizes that point-to-point calls between video relay service (VRS) users are not TRS as defined in Section 225, but “requiring that [VRS] providers facilitate point-to-point communications between persons with hearing or speech disabilities is reasonably ancillary to the Commission’s responsibilities in several parts of the Act – sections 225, 255, and 1.” *Id.* at 821, ¶ 66.

<sup>130</sup> Consumer Groups Reply Comments at 6.

the context of VRS should have any bearing on how we define “interoperable” in the term “interoperable video conferencing service.”

## 5. Customized Equipment or Services

48. Section 716(i) states that the provisions of this Section “shall not apply to customized equipment or services that are not offered directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used.”<sup>131</sup> While the Senate Report did not discuss this provision, the House Report explains that Section 716(i) is a “narrow exemption” that encompasses “equipment and services [that] are customized to the unique specifications requested by an enterprise customer.”<sup>132</sup> It goes on to state that this provision “permit[s] manufacturers and service providers to respond to requests from businesses that require specialized and sometimes innovative equipment to provide their services efficiently”<sup>133</sup> and is “not intended to create an exemption for equipment and services designed for and used by members of the general public.”<sup>134</sup>

49. Several other commenters urge us to find that manufacturers and service providers are subject to Section 716 only to the extent that they are offering their equipment and services directly to the public.<sup>135</sup> In contrast, the RERC-IT urges us to “carefully limit the exception for customized equipment and services” and to cover equipment and services that have been customized in “minor ways” and “that are made available to the public indirectly through employers, schools, or other institutions.”<sup>136</sup> The RERC-IT also urges that we define “public” in this context to “include public institutions, such as educational institutions and government agencies.”<sup>137</sup>

50. We believe that the guidance offered by the House Report evinces Congress’s intent that Section 716(i) be narrow in scope and applicable only to customized equipment and services offered to business or other enterprise customers, rather than to equipment and services “used by members of the general public.”<sup>138</sup> We seek comment on this analysis, as well as on the extent to which the equipment and services used by private institutions but made available to the public, such as communications equipment and services used by libraries and schools, should be covered by the CVAA. More specifically, we seek comment on what additional guidance by the Commission is needed to define equipment and services that are “used by members of the general public.”<sup>139</sup> Finally, we seek comment on the extent to which Section 716 covers products and services that are offered to the general public, but which have been customized in minor ways to meet the needs of private entities.

51. Consistent with Motorola’s assertions, we propose to find Section 716’s definition of advanced communications services not to extend to public safety communications networks and devices and find that these networks and devices are “equipment and services that are not offered directly to the public.”<sup>140</sup> We agree that the Commission’s recent proposal not to apply its hearing aid compatibility

---

<sup>131</sup> See 47 U.S.C. § 617(i).

<sup>132</sup> House Report at 26.

<sup>133</sup> *Id.*

<sup>134</sup> *Id.*

<sup>135</sup> CTIA Comments at 5; TIA Comments at 4-5; Motorola Comments at 6; and CTIA Reply Comments at 4.

<sup>136</sup> RERC-IT Comments at 9.

<sup>137</sup> RERC-IT Comments at 10.

<sup>138</sup> House Report at 26.

<sup>139</sup> *Id.*

<sup>140</sup> Motorola Comments at 4-6; 47 U.S.C. § 617(i).

requirements to public safety equipment is instructive here.<sup>141</sup> We note, however, that employers still have obligations under the Americans with Disabilities Act, and agree with CSD that “to the extent possible, public safety systems should be designed to accommodate the needs of deaf [and] hard-of-hearing employees and employees with other disabilities.”<sup>142</sup> We seek comment on this analysis.

**6. Waivers for Services or Equipment Designed for Purposes other than Using ACS**

52. Section 716(h)(1) of the Act states:

The Commission shall have the authority, on its own motion or in response to a petition by a manufacturer or provider of [ACS] or any interested party, to waive the requirements of [Section 716] for any feature or function of equipment used to provide or access [ACS], or for any class of such equipment, for any provider of [ACS], or for any class of such services that —

(A) is capable of accessing an [ACS]; and

(B) is designed for multiple purposes but is designed primarily for purposes other than using [ACS].<sup>143</sup>

We note that, in making waiver decisions, the Commission generally considers whether special circumstances exist that warrant deviation from the general rule, and whether the waiver will serve the public interest.<sup>144</sup> In the *October Public Notice*, the Bureaus asked what factors would be relevant to determining whether a product or service is eligible for a waiver and whether there are any specific classes of products or services that warrant the establishment of a categorical or blanket waiver.<sup>145</sup>

53. Both the Senate and House Reports state that Section 716(h) “provides the Commission with the flexibility to waive the accessibility requirements for any feature or function of a device that is capable of accessing advanced communications services but is, in the judgment of the Commission, designed primarily for purposes other than accessing advanced communications.”<sup>146</sup> Consistent with the statutory language and legislative history, we propose to focus our inquiry on determining whether the offering is designed primarily for purposes other than using ACS.<sup>147</sup>

54. In making our waiver assessment, Microsoft urges that we consider the “core features of the product or service as designed and marketed,”<sup>148</sup> and states that “[v]ideo gaming consoles and their associated online services, which do not have communications as their primary purpose, are just the kind of products and services that Congress envisioned when it gave the Commission broad authority to grant

---

<sup>141</sup> Motorola Comments at 4-6. *See also Amendment of the Commission’s Rules Governing Hearing Aid-Compatible Mobile Handsets*, WT Docket No. 07-250, Policy Statement and Second Report and Order and Further Notice of Proposed Rulemaking, 25 FCC Rcd 11167, 11195 ¶ 82 (2010) (Consistent with distinctions drawn in past, the Commission proposed not to extend hearing aid compatibility rules to certain non-interconnected systems used solely for internal communications, such as public safety or dispatch networks).

<sup>142</sup> CSD Reply Comments at 4.

<sup>143</sup> 47 U.S.C. § 617(h).

<sup>144</sup> *Northeast Cellular Telephone Co., L.P. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990) (citing *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969)); *see also* 47 C.F.R. § 1.3.

<sup>145</sup> *See October Public Notice* at 5.

<sup>146</sup> House Report at 26; Senate Report at 8.

<sup>147</sup> 47 U.S.C. § 617(h)(1)(B).

<sup>148</sup> Microsoft Comments at 5.

waivers.”<sup>149</sup> ESA agrees that we ought to consider how products are designed and marketed in considering whether a waiver is applicable,<sup>150</sup> and asserts that the accessibility provisions in Section 716 should not apply to gaming products.<sup>151</sup> While we agree with commenters that the “core” function of an offering is an issue relevant to our analysis, we also agree with the IT and Telecom RERCs’s suggestion that the “primary feature of a multi-feature device or service [may] vary from person to person.”<sup>152</sup> Furthermore, we do not believe the fact that a “core” function of a device is to play games to be dispositive of the issue of whether such device is entitled to waiver under Section 716(h). As the IT and Telecom RERCs note, “[g]aming is used for education, rehabilitation, and social interaction [and] . . . should not be exempted simply because the basic feature is a game.”<sup>153</sup> We seek comment on this analysis. We also seek comment on AFB’s contentions that “how [a product] is marketed” and “[how] most people think of the device” should not be relevant to our analysis; rather, “[t]he issue is whether the advanced communications features and functions can be operated apart from the device’s [primary] functions.”<sup>154</sup>

55. ESA also suggests that *why* consumers access the gaming products is an important consideration: “Consumers do not play an online game, [for example], as a means of accessing chat – a consumer in search of a general purpose messaging service will find simpler, more direct alternatives than navigating through the various features of a gaming device or online game service.”<sup>155</sup> We seek comment on this assertion and on whether how consumers actually use the communications component of a multi-purpose device or service is relevant to our assessment of the primary purpose for which a device or service was designed. In addition, we seek comment on ESA’s proposal that we consider as part of our waiver determination whether the offering is designed for a “specific class of users who are using the ACS features in support of another task.”<sup>156</sup>

56. We also seek comment on the process that we should adopt for determining whether to waive the requirements of Section 716 and specifically on the extent to which we need to adopt any procedures to ensure that such process is efficient and effective. Alternatively, we seek comment on whether we should handle waivers as we have in the normal course pursuant to Section 1.3 of the Commission’s rules.<sup>157</sup> We agree with commenters who state that we should “incorporate protections for

<sup>149</sup> *Id.* at 6.

<sup>150</sup> ESA Comments at 8-9.

<sup>151</sup> ESA Comments at 1, 3-4, 6-10; ESA Reply Comments at 1-2. *See also* Microsoft Comments at 4-6; CEA Comments at i; VON Coalition Comments at 9-10; TIA Comments at 6-7 and 21; and T-Mobile Comments at 2-3 and 6-7.

<sup>152</sup> IT and Telecom RERCs Reply Comments at 9.

<sup>153</sup> IT and Telecom RERCs Reply Comments at 10. Relatedly, we do not think the fact that “the Federal Trade Commission . . . has routinely treated video games as distinct from other forms of electronic media . . . in its periodic reviews of [their] marketing practices” is relevant to our analysis of how to interpret Section 716(h), as ESA suggests. ESA Comments at 5.

<sup>154</sup> AFB Reply Comments at 10.

<sup>155</sup> ESA Comments at 4.

<sup>156</sup> ESA Comments at 8-9. We also find no support in the statutory language or legislative history for VON Coalition’s contention that we should consider “whether other similar equipment or services are generally available (at comparable prices) that are accessible by individuals with disabilities” and thus believe that it should not be part of our waiver analysis. *See* VON Coalition Comments at 13.

<sup>157</sup> *See* 47 C.F.R. § 1.3 (“Any provision of the [Commission’s rules] may be waived by the Commission on its own motion or on petition if good cause therefore is shown.”). Any interested party may file a request for waiver of the Commission’s rules provided the party complies with the filing procedures and the appropriate format requirements set forth in its rules. *See, e.g.*, 47 C.F.R. § 1.925 (describing specific procedure and format for filing waiver requests of the Wireless Radio Service rules regarding licenses and applications).

confidential information”<sup>158</sup> and propose that parties seeking waivers be able to request confidential treatment of information pursuant to Section 0.459 of the Commission's rules.<sup>159</sup> At the same time, we agree with AAPD that, to the extent possible, the process should be “transparent and public,”<sup>160</sup> and propose to seek comment on any waiver petition that we receive pursuant to Section 716(h). We seek comment on these proposals.

57. We also recognize the need, after appropriate consideration, for making waiver determinations in an “expeditious manner,”<sup>161</sup> although we propose not to “incorporate an automatic grant date for waiver requests” as TIA urges.<sup>162</sup> We note that TIA requests that “if the Commission fails to timely act on a good faith waiver request, the company in question [should] be able to initiate the product or service without penalty, and incorporate accessibility features in a reasonable time frame prospectively.”<sup>163</sup> Given that such a “deemed granted” provision is not contemplated by the statute, we do not intend to propose the framework outlined by TIA.<sup>164</sup> We seek comment on this analysis.

58. In addition, in light of the fact that, as the NFB observes, “[t]echnology is ever changing and the ‘primary purpose’ of multi-purpose products is always evolving,”<sup>165</sup> we seek comment on AAPD’s assertion that “there should be no permanent waivers.”<sup>166</sup> Should waivers be temporary, and, if so, what should the duration of the waivers be? If we decide that waivers should only be temporary, should we establish a process for renewing waivers, and, if so, should the factors we consider for renewal vary from the factors we consider for the original waiver grant?

59. We also seek comment on whether we should consider waivers for a “class” of services or equipment under this section and what specific showing is needed to justify such waivers. Several commenters suggest that we should grant blanket waivers in order to support innovation and competition.<sup>167</sup> For example, Microsoft states that “[g]ranting prospective categorical waivers is essential to encourage manufacturers and service providers to build communication features into services and equipment devices that do not have as their core purpose advanced communications . . . [f]ostering this innovation will enrich the communications choices and solutions available to all consumers, including those with disabilities.”<sup>168</sup> In contrast, many consumer commenters suggest that blanket waivers are never appropriate, given rapid technological advancement and the belief that “much accessibility and usability will be accomplished through software and related changes.”<sup>169</sup>

60. We seek further comment on the specific factors that we should consider in determining whether a particular “class” of services or equipment should be granted a waiver. How can we determine what services or equipment are similarly situated enough to be designated a “class”? Is it possible to

---

<sup>158</sup> ESA Reply Comments at 4; *see also* TIA Comments at 22 and CEA Comments at 17.

<sup>159</sup> 47 C.F.R. § 0.459.

<sup>160</sup> AAPD Reply Comments at 6; *see also* AFB Reply Comments at 9.

<sup>161</sup> ESA Reply Comments at 4.

<sup>162</sup> TIA Comments at 22; *see also* ESA Reply Comments at 4.

<sup>163</sup> *Id.*

<sup>164</sup> *See e.g.*, 47 U.S.C. § 160(c) (providing that any petition for forbearance shall be “deemed granted” if the Commission does not deny the petition).

<sup>165</sup> NFB Reply Comments at 3.

<sup>166</sup> AAPD Reply Comments at 6.

<sup>167</sup> CEA Comments at ii and 17; ESA Reply Comments at 2-3; and Microsoft Comments at 7.

<sup>168</sup> Microsoft Comments at 7; *see also* CEA Comments at 17 and ESA Reply Comments at 3.

<sup>169</sup> AAPD Comments at 5; *see also* AFB Reply Comments at 9 and ACB Reply Comments at 24.

structure a blanket waiver in such a way as to address consumers' concerns that any such waiver could quickly become outdated? Are there specific classes of services or equipment that we should consider waiving in our final rules on Section 716? If we do decide to grant waivers for an entire class of services or equipment, should such waivers be permanent or temporary? We note, for example, while ACB opposes blanket waivers, it recommends that if the Commission does grant them, that it limit the term to 12 months.<sup>170</sup> As discussed above (for individual waivers), should we establish a renewal and/or revocation process for categorical waivers?

## 7. Exemptions for Small Entities

61. Section 716(h)(2) states that “the Commission may exempt small entities from the requirements of this section.”<sup>171</sup> While the Senate Report did not discuss this provision, the House Report notes that under this section, the Commission may “waive the accessibility requirements for certain small businesses and entrepreneurial organizations” because they “may not have the legal, financial, or technical capability to incorporate accessibility features.”<sup>172</sup> Otherwise, the Report notes, the “application of these requirements in this limited case may slow the pace of technological innovation.”<sup>173</sup> It also states that “the Commission is best suited to evaluate and determine which entities may qualify for this exemption,” and that it expects we will consult with the Small Business Administration (“SBA”) when defining the small entities to be exempted.<sup>174</sup>

62. NTCA asks the Commission to exercise its authority under Section 716(h)(2) to exempt small businesses from Section 716 and to define “small businesses,” as such term is defined in the Regulatory Flexibility Act, thereby enabling small, rural local exchange carriers (“RLECs”) and their affiliates to deploy and offer ACS “without facing outsized or unachievable regulatory burdens.”<sup>175</sup> Similarly, Blooston Rural Carriers request that small RLECs, RLEC affiliates, and other similarly situated small entities be exempted under Section 716(h)(2) from both Section 716 and the related enforcement and recordkeeping requirements of Section 717. In the alternative, they request that the Commission adopt “streamlined procedures and simplified criteria” that make “appropriate waivers reasonably available to qualifying entities in a timely, predictable, and economically reasonable manner.”<sup>176</sup>

63. Consumer Groups, however, urge that “[i]ndividuals with disabilities should not be denied accessible advanced communications equipment and services simply because they happen to live in underserved or rural areas,”<sup>177</sup> and assert that “RLECs can ensure their own compliance with the [CVAA] through contracts with larger providers and mass market vendors . . . who must also comply with the [CVAA].”<sup>178</sup> ACB opposes small entity waivers “without such entities having done due diligence on whether or not product accessibility is ‘achievable’ . . . [contending] a case-by-case approach to granting waivers would better serve the needs of consumers.”<sup>179</sup> Moreover, ACB recommends that, if the Commission grants categorical waivers for small entities, any such waivers only be granted for a year

---

<sup>170</sup> ACB Reply Comments at 24.

<sup>171</sup> 47 U.S.C. § 617(h)(2).

<sup>172</sup> House Report at 26. In particular, the Report recognizes “the importance of small and entrepreneurial innovators and the significant value they add to the economy.” *Id.*

<sup>173</sup> House Report at 26.

<sup>174</sup> *Id.*

<sup>175</sup> NTCA Comments at 3, 4.

<sup>176</sup> Blooston Rural Carriers Comments at 1-2.

<sup>177</sup> Consumer Group Reply Comments at 10.

<sup>178</sup> *Id.*

<sup>179</sup> ACB Reply Comments at 25.

or less, subject to renewal at the Commission's discretion.<sup>180</sup> Similarly, AAPD urges the Commission to utilize caution when reviewing circumstances that would allow small entities an exemption from these requirements. AAPD does not favor "permanent exemptions or waivers."<sup>181</sup>

64. In considering the proper scope of possible exemptions from the provisions of Section 716 for small entities, we note that other provisions of that section also recognize the need to consider the circumstances of such entities in applying the accessibility requirements. As discussed in Section III.B.1 *infra*, Section 716 provides that service providers and manufacturers must meet the accessibility requirements of Section 716 "unless [those requirements] are not achievable."<sup>182</sup> Section 716(g) defines "achievable" as "with reasonable effort or expense," and requires the Commission to consider four factors in determining whether meeting a requirement of Section 716 is "achievable."<sup>183</sup> Two of those four factors necessarily incorporate consideration of the size and capabilities of an entity: "[t]he technical and economic impact on the operation of the manufacturer or provider and on the operation of the specific equipment or service in question, including on the development and deployment of new communications technologies;"<sup>184</sup> and "[t]he type of operations of the manufacturer or provider."<sup>185</sup>

65. The discretionary authority to exempt one or more groups of small entities in Section 716(h)(2) supplements the protections that are built into the Section 716(g) achievability analysis with an additional tool to ensure that our rules do not unduly burden such entities. We acknowledge that certain small entities may lack the legal, financial, or technical capability to incorporate the accessibility features required by the CVAA,<sup>186</sup> and that in certain instances this may warrant an exemption from our accessibility requirements for certain small entities that provide ACS as well as some of those small entities that manufacture equipment used for ACS.<sup>187</sup> According to Blooston Rural Carriers, "very small and highly localized entities [may] lack the size, resources or purchasing power to influence" the design, features, and structure of ACS or equipment used for ACS.<sup>188</sup> At the same time, however, we agree with consumers that any such exemptions should be carefully tailored to ensure that individuals with disabilities are not denied access to advanced communications equipment and services in rural and other underserved areas.

66. In light of these competing concerns, we seek comment on whether we should exercise our exemption authority, and if so, how we should structure the exemption. For example, should we base the exemption on the number of employees or the annual revenues of the entity or a combination of the two? Are there other criteria that we should consider? We also seek input on the impact of any exemption that commenters urge us to make. In particular, we request information on the percentage of manufacturers and service providers that would be exempted from our Section 716 requirements for any specific criteria proposed. We also seek comment on the percentage of equipment (including software) and services in the ACS marketplace that would be exempted from the requirements of Section 716 if we

---

<sup>180</sup> ACB Reply Comments at 25.

<sup>181</sup> AAPD Reply Comments at 5-6 (adding that the process for obtaining waivers and exemptions should be "transparent and public").

<sup>182</sup> 47 U.S.C. § 617(a)(1) and (b)(1).

<sup>183</sup> 47 U.S.C. § 617(g).

<sup>184</sup> 47 U.S.C. § 617(g)(2)

<sup>185</sup> 47 U.S.C. § 617(g)(3).

<sup>186</sup> See House Report at 26.

<sup>187</sup> See discussion *supra* Sections III.A.2-3, regarding the meaning of the terms "manufacturer" and "provider of advanced communications services."

<sup>188</sup> Blooston Rural Carriers Comments at 1-2.

exempted entities based these proposed criteria. In addition, we seek comment on how use of any recommended criteria would affect the availability of ACS and equipment used for ACS, especially in rural and underserved areas. Finally, if we adopt criteria to exempt small entities, should we consider limiting the time period of any exemption that may be granted under these criteria? We also propose to review periodically any bases that we adopt for granting exemptions to small entities to ensure that they reflect the current state of the industry.

## **B. Nature of Statutory Requirements**

### **1. Achievable Standard**

#### **a. General Approach**

67. Service providers and manufacturers must meet the accessibility requirements of Section 716 “unless [those requirements] are not achievable.”<sup>189</sup> Section 716(g) of the Act defines the term “achievable” to mean “with reasonable effort or expense, as determined by the Commission.”<sup>190</sup> As noted *supra* at paragraph 5 and note 18, Section 716 requires a higher standard of achievement than Section 255. Under Section 255, covered entities must ensure the accessibility of their products if it is “readily achievable” to do so, which the statute defines by cross-reference to the ADA to mean “easily accomplishable and able to be carried out without much difficulty or expense.”<sup>191</sup>

68. Specifically, Section 716(g) requires the Commission to consider the following factors in making determinations about what “constitutes reasonable effort or expense”:

(1) the nature and cost of the steps needed to meet the requirements of this [S]ection with respect to the specific equipment or service in question; (2) the technical and economic impact on the operation of the manufacturer or provider and on the operation of the specific equipment or service in question, including on the development and deployment of new communications technologies; (3) the type of operations of the manufacturer or provider; and (4) the extent to which the service provider or manufacturer in question offers accessible services or equipment containing varying degrees of functionality and features, and offered at differing price points.<sup>192</sup>

69. We seek comment on each of these factors. At the outset, we note that the Senate and House Reports state that we should “weigh each factor equally when making an achievability determination.”<sup>193</sup> The House Report also states that in implementing Section 716, the Commission should “afford manufacturers and service providers as much flexibility as possible, so long as each does everything that is achievable in accordance with the achievability factors.”<sup>194</sup> Consistent with this legislative history, we generally agree with AT&T that an assessment of what is achievable should be “fact-based, flexible, and applied on a case-by-case basis,”<sup>195</sup> but also agree with NFB that flexibility should not be so paramount that “accessibility is never achieved.”<sup>196</sup> The House Report also states that “the Commission [should] interpret the accessibility requirements in this provision the same way as it did

---

<sup>189</sup> See 47 U.S.C. §§ 617(a)(1) and (b)(1).

<sup>190</sup> See 47 U.S.C. § 617(g).

<sup>191</sup> See 47 U.S.C. § 255(a)(2) and 42 U.S.C. § 12181(9).

<sup>192</sup> See 47 U.S.C. § 617(g).

<sup>193</sup> Senate Report at 8; House Report at 25.

<sup>194</sup> House Report at 24.

<sup>195</sup> AT&T Comments at 8; *see also* TIA Comments at 9; Consumer Groups Reply Comments at 12; and ACB Reply Comments at 7.

<sup>196</sup> NFB Reply Comments at 6.