



# PUBLIC NOTICE

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**CONSUMER AND GOVERNMENTAL AFFAIRS BUREAU SEEKS COMMENT ON ITS  
TENTATIVE FINDINGS ABOUT THE ACCESSIBILITY OF COMMUNICATIONS  
TECHNOLOGIES FOR THE 2016 BIENNIAL REPORT UNDER THE  
TWENTY-FIRST CENTURY COMMUNICATIONS AND VIDEO ACCESSIBILITY ACT**

**CG Docket No. 10-213**

**Pleading Cycle Established**

**Comments Due: September 7, 2016**

## **I. INTRODUCTION**

1. This Public Notice seeks comment on tentative findings for the 2016 Biennial Report (Report) to Congress on the Twenty-First Century Communications and Video Accessibility Act of 2010 (CVAA). Public comment will assist the Commission in assessing the following: (1) the level of compliance with the CVAA's mandates requiring telecommunications and advanced communications services (ACS) and equipment to be accessible to and usable by individuals with disabilities; (2) the effect of related recordkeeping and enforcement obligations; and (3) the extent to which accessibility barriers still exist with respect to new communications technologies. The Consumer and Governmental Affairs Bureau (CGB or Bureau) of the Federal Communications Commission (FCC or Commission) will submit the final Report to Congress by October 8, 2016.

2. The purpose of the CVAA,<sup>1</sup> which amended the Communications Act of 1934 (the Act), is "to help ensure that individuals with disabilities are able to fully utilize communications services and equipment and better access video programming."<sup>2</sup> In enacting the CVAA, Congress concluded that people with disabilities often have not shared in the benefits of this rapid technological advancement.<sup>3</sup> Congress directed the Commission to evaluate the CVAA's progress in addressing this inequity in a

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<sup>1</sup> Pub. L. No. 111-260, 124 Stat. 2751 (2010) (as codified in various sections of 47 U.S.C.); Pub. L. No. 111-265, 124 Stat. 2795 (2010) (making technical corrections to the CVAA).

<sup>2</sup> S. Rep. No. 111-386 at 1 (2010) (Senate Report); H.R. Rep. No. 111-563 at 19 (2010) (House Report) (both noting that the communications marketplace had undergone a "fundamental transformation" since Congress adopted section 255 of the Act in 1996); *see also* 47 U.S.C. § 255 (requiring access to telecommunications services and equipment).

<sup>3</sup> Senate Report at 1-2; House Report at 19.

report to Congress every two years.<sup>4</sup> The Commission previously submitted two such biennial reports, the first in 2012,<sup>5</sup> and the second in 2014.<sup>6</sup>

3. Since its enactment on October 8, 2010, the Commission has adopted rules to implement the CVAA, in compliance with all CVAA deadlines.<sup>7</sup> The Commission continues to work with consumer, industry, and government stakeholders to ensure effective and timely implementation of the CVAA. Resources throughout the Commission's bureaus and offices have contributed to this comprehensive effort, reflecting the Commission's ongoing commitment to ensuring communications access for millions of Americans with disabilities.

## II. BACKGROUND AND SCOPE OF THE REPORT

4. The Report that will be submitted to Congress must include the following elements:
- (A) An assessment of the level of compliance with sections 255 (accessibility of telecommunications services and equipment), 716 (accessibility of ACS and equipment used for ACS), and 718 (accessibility of Internet browsers built into mobile phones).
  - (B) An evaluation of the extent to which any accessibility barriers still exist with respect to new communications technologies.
  - (C) The number and nature of complaints received pursuant to section 717(a) (recordkeeping and enforcement obligations of service providers and equipment manufacturers that are subject to sections 255, 716, and 718).
  - (D) A description of the actions taken to resolve such complaints, including forfeiture penalties assessed.
  - (E) The length of time that was taken by the Commission to resolve each such complaint.
  - (F) The number, status, nature, and outcome of any actions for mandamus filed and of any appeals filed.

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<sup>4</sup> See section 717(b)(1) of the Act, as added by the CVAA, codified at 47 U.S.C. § 618(b)(1). Biennial reports must be submitted to the Committee on Commerce, Science, and Transportation of the Senate, and the Committee on Energy and Commerce of the House of Representatives. *Id.*; see also Senate Report at 9; House Report at 27 (both stating that the report should “assess[] the level of compliance with the requirements of [the CVAA], as well as other matters related to the effectiveness of the Commission’s complaint resolution process”).

<sup>5</sup> The Bureau delivered the first biennial report to Congress on October 5, 2012. *Implementation of Sections 716 and 717 of the Communications Act of 1934, as Enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010*, Biennial Report to Congress as Required by the Twenty-First Century Communications and Video Accessibility Act of 2010, 27 FCC Rcd 12204 (CGB 2012) (*2012 CVAA Biennial Report*).

<sup>6</sup> The Bureau delivered the second biennial report to Congress on October 8, 2014. *Implementation of Sections 716 and 717 of the Communications Act of 1934, as Enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010*, Biennial Report to Congress as Required by the Twenty-First Century Communications and Video Accessibility Act of 2010, 29 FCC Rcd 11909 (CGB 2014) (*2014 CVAA Biennial Report*).

<sup>7</sup> See *2012 CVAA Biennial Report*, 27 FCC Rcd at 12205-6, para. 2 (reporting that the Commission had released five reports and orders adopting rules to implement various provisions of the CVAA and had met every one of the CVAA’s rulemaking deadlines); *2014 CVAA Biennial Report*, 29 FCC Rcd 11909, 11911-12, para. 3 (reporting that, since the submission of the *2012 CVAA Biennial Report*, the Commission had released six additional reports and orders adopting rules to implement various provisions of the CVAA and had met every one of the CVAA’s rulemaking deadlines, where feasible).

- (G) An assessment of the effect of the recordkeeping and enforcement requirements of section 717 on the development and deployment of new communications technologies.<sup>8</sup>

5. *Section 255.* Section 255 of the Act requires providers of telecommunications service and manufacturers of telecommunications equipment or customer premises equipment (CPE) to ensure that such services and equipment are accessible to and usable by individuals with disabilities, if readily achievable.<sup>9</sup> When these requirements are not readily achievable, covered entities must ensure that their services and equipment are compatible with existing peripheral devices or specialized CPE commonly used by individuals with disabilities to achieve access, if readily achievable.<sup>10</sup> In 2007, the Commission adopted rules extending section 255's accessibility obligations to interconnected voice over Internet protocol (VoIP) service providers and interconnected VoIP equipment manufacturers.<sup>11</sup>

6. *Section 716.* Section 716 of the Act requires providers of ACS and manufacturers of equipment used for ACS to ensure that their services and equipment are accessible to and usable by individuals with disabilities, unless doing so is not achievable (defined as "with reasonable effort or expense").<sup>12</sup> "Advanced communications services" include: (1) interconnected VoIP service; (2) non-interconnected VoIP service; (3) electronic messaging service; and (4) interoperable video conferencing service.<sup>13</sup> In contrast to interconnected VoIP services, which enable people to make and receive calls to and from the public switched telephone network (PSTN), non-interconnected VoIP services include services that enable real-time voice communications either to or from the PSTN (but not both) or which neither begin nor end on the PSTN at all.<sup>14</sup> Electronic messaging services include services such as e-mail,

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<sup>8</sup> See 47 U.S.C. § 618(b)(1).

<sup>9</sup> 47 U.S.C. § 255(b), (c); see also 47 CFR Part 6 and Part 7. "Readily achievable" is defined as "easily accomplishable and able to be carried out without much difficulty or expense." 42 U.S.C. § 12181(9). The Commission's section 255 rules cover, among other things, telephone calls, call waiting, speed dialing, call forwarding, computer-provided directory assistance, call monitoring, caller identification, call tracing, and repeat dialing. See *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*, Report and Order and Further Notice of Inquiry, 16 FCC Rcd 6417, 6449, para. 77 (1999) (*Section 255 Order*); see also 47 CFR Part 6. Equipment covered under section 255 includes, but is not limited to, telecommunications equipment and CPE, such as wireline, cordless, and wireless telephones, fax machines, and answering machines. The Act defines telecommunications equipment as "equipment, other than customer premises equipment, used by a carrier to provide telecommunications services, and includes software integral to such equipment (including upgrades)." 47 U.S.C. § 153(52). It defines "customer premises equipment" as "equipment employed on the premises of a person (other than a carrier) to originate, route or terminate telecommunications." 47 U.S.C. § 153(16). In addition, the rules implementing section 255 cover voice mail and interactive voice response systems (phone systems that provide callers with menus of choices). 47 CFR Part 7; see also FCC, *Telecommunications Access for People with Disabilities* (Nov. 5, 2015), <http://www.fcc.gov/guides/disabled-persons-telecommunications-access-section-255>.

<sup>10</sup> 47 U.S.C. § 255(d).

<sup>11</sup> *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*, Report and Order, 22 FCC Rcd 11275 (2007) (*Section 255 VoIP Order*).

<sup>12</sup> 47 U.S.C. § 617(a)(1), (b)(1), (g); 47 CFR §§ 14.20(a)(1)-(2), 14.10(b).

<sup>13</sup> 47 U.S.C. § 153(1); see also 47 CFR § 14.10(c). Section 716 of the Act does not apply to services or equipment, including interconnected VoIP services and equipment, which were subject to section 255 on October 7, 2010. 47 U.S.C. § 617(f). Those services and equipment remain subject to the requirements of section 255. *Id.*

<sup>14</sup> See 47 U.S.C. § 153(25), 153(36); 47 CFR § 9.3.

short message service (SMS) text messaging, and instant messaging, which enable real-time or near real-time text messages between individuals over communications networks.<sup>15</sup> Interoperable video conferencing services provide real-time video communications, including audio, to enable users to share information.<sup>16</sup>

7. The accessibility requirements for section 716 may be satisfied by: (1) building accessibility into the service or equipment;<sup>17</sup> or (2) using third-party applications, peripheral devices, software, hardware, or CPE that is available to consumers at nominal cost and that individuals with disabilities can access.<sup>18</sup> When ensuring accessibility through either of those options is not achievable, covered entities must ensure that their services and equipment are compatible with existing peripheral devices or specialized CPE commonly used by individuals with disabilities to achieve access, unless that is not achievable.<sup>19</sup>

8. *Section 717.* Section 717 requires covered entities to keep records of their efforts to implement sections 255, 716, and 718, including information about their efforts to consult with people with disabilities, descriptions of the accessibility features of their products and services, and information about the compatibility of these products and services with peripheral devices or specialized CPE commonly used by people with disabilities to achieve access.<sup>20</sup> Section 717 also established new procedures for complaints alleging violations of sections 255, 716, or 718 of the Act.<sup>21</sup>

9. *Section 718.* Section 718 requires mobile phone service providers and manufacturers to make Internet browsers built into mobile phones accessible to and usable by people who are blind or have a visual impairment, unless doing so is not achievable.<sup>22</sup> This requirement may be satisfied with or without the use of third-party applications, peripheral devices, software, hardware, or CPE that is available to consumers at nominal cost and that individuals with disabilities can access.<sup>23</sup>

10. *Scope of the Report.* The Report will provide an assessment of industry compliance with the accessibility requirements of sections 255, 716, and 718 since the submission of the *2014 CVAA Biennial Report*.<sup>24</sup> The Report will also address accessibility barriers that still exist with respect to new communications technologies. In addition, the Report will consider the effect of the accessibility-related recordkeeping and enforcement requirements under section 717 of the Act on the development and deployment of new communications technologies since these requirements became effective. Finally, the Report will provide information about complaints alleging violations of sections 255, 716, and 718 for the period of January 1, 2014, through December 31, 2015.<sup>25</sup>

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<sup>15</sup> 47 U.S.C. § 153(19).

<sup>16</sup> 47 U.S.C. § 153(27).

<sup>17</sup> 47 U.S.C. § 617(a)(2)(A), (b)(2)(A).

<sup>18</sup> 47 U.S.C. § 617(a)(2)(B), (b)(2)(B).

<sup>19</sup> 47 U.S.C. § 617(c).

<sup>20</sup> 47 U.S.C. § 618(a)(5)(A).

<sup>21</sup> 47 U.S.C. § 618(a); 47 CFR §§ 14.30-14.52.

<sup>22</sup> 47 U.S.C. § 619(a); 47 CFR § 14.61(a).

<sup>23</sup> 47 U.S.C. § 619(b); 47 CFR § 14.61(b).

<sup>24</sup> 47 U.S.C. §§ 255, 617, 619; 47 CFR Part 6, Part 7, Part 14.

<sup>25</sup> 47 U.S.C. § 618(b)(2). As noted in the *2012 CVAA Biennial Report*, we believe it is most appropriate for these periodic reports to review complaints for the two most recent calendar years. We generally find that this approach allows the Commission adequate time to solicit public comment on the issues that it must address in such reports, consistent with section 717(b)(2), and best achieves the CVAA's objectives. See *2012 CVAA Biennial Report*, 26

### III. COMMENT SOUGHT ON TENTATIVE FINDINGS

11. Section 717(b)(2) of the Act requires the Commission to seek public comment on its tentative findings prior to submission of each biennial report to Congress.<sup>26</sup> To help inform the Commission's tentative findings, the Bureau issued a public notice on May 23, 2016, inviting comments related to the development of the Report.<sup>27</sup>

12. We now seek comment on whether the Commission's tentative findings contained in the Attachment to this Public Notice accurately represent the current state of communications technologies accessibility. To the extent commenters believe the tentative findings do not provide an accurate representation, we seek comment on why they do not and how they should be revised to do so. We also seek comment on the extent to which the actions taken by industry, as described in the Attachment, have resulted in increased accessibility and, where relevant, usability and compatibility, of telecommunications services and equipment, ACS, and equipment used for ACS since delivery of the *2014 CVAA Biennial Report* to Congress. Do these products and services offer the same range of low-end and high-end features, functions, and prices that are available to the general public? What other kinds of information would help the Commission to conduct these assessments, as required by the CVAA, for the next biennial report to Congress to be submitted by October 8, 2018? In order to facilitate review of all comments, we request that commenters identify the specific findings on which they are providing comment.

### IV. PROCEDURAL MATTERS

13. *Ex Parte Rules.* The proceeding this Public Notice initiates shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules.<sup>28</sup> Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b).<sup>29</sup> In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf).<sup>30</sup> Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

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FCC Rcd at 12212, para. 16.

<sup>26</sup> 47 U.S.C. § 618(b)(2).

<sup>27</sup> *Consumer and Governmental Affairs Bureau Seeks Comment on the Accessibility of Communications Technologies for the 2016 Biennial Report Required by the Twenty-First Century Communications and Video Accessibility Act*, Public Notice, 31 FCC Rcd 5356 (CGB 2016) (*2016 CVAA Assessment Public Notice*).

<sup>28</sup> 47 CFR § 1.1200 *et seq.*

<sup>29</sup> 47 CFR § 1.1206(b).

<sup>30</sup> 47 CFR § 1.49(f).

14. *Filing Requirements.* Pursuant to sections 1.415 and 1.419 of the Commission’s rules,<sup>31</sup> interested parties may file comments on or before the date indicated on the first page of this document. Comments may be filed using the Commission’s Electronic Comment Filing System (ECFS).<sup>32</sup> All comments should refer to **CG Docket No. 10-213**. Please title comments responsive to this Public Notice as “Public Notice Comments – 2016 CVAA Biennial Report Tentative Findings.” Further, we strongly encourage parties to develop responses to this Public Notice that adhere to the organization and structure of the questions in this Public Notice.

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <http://apps.fcc.gov/ecfs/>.
- Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.
  - Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission’s Secretary, Office of the Secretary, Federal Communications Commission.
  - All hand-delivered or messenger-delivered paper filings for the Commission’s Secretary must be delivered to FCC Headquarters at 445 12<sup>th</sup> Street, SW, Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of *before* entering the building.
  - Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
  - U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12<sup>th</sup> Street, SW, Washington DC 20554.

15. *People with Disabilities.* To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to [fcc504@fcc.gov](mailto:fcc504@fcc.gov) or call the Consumer and Governmental Affairs Bureau at 202-418-0530 (voice), 844-432-2275 (videophone), or 202-418-0432 (TTY). Individuals with disabilities may request assistance from the Disability Rights Office to file comments in the Commission’s Electronic Comment Filing System by sending an e-mail to [dro@fcc.gov](mailto:dro@fcc.gov).

16. *Additional Information.* For further information about this Public Notice, please contact Rosaline Crawford, Disability Rights Office, Consumer and Governmental Affairs Bureau, at 202-418-2075 or by e-mail to [Rosaline.Crawford@fcc.gov](mailto:Rosaline.Crawford@fcc.gov).

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<sup>31</sup> 47 CFR §§ 1.415, 1.419.

<sup>32</sup> See *Electronic Filing of Documents in Rulemaking Proceedings*, Report and Order, 13 FCC Rcd 11322 (1998).



## ATTACHMENT

### TENTATIVE FINDINGS FOR THE 2016 BIENNIAL REPORT TO CONGRESS AS REQUIRED BY THE TWENTY-FIRST CENTURY COMMUNICATIONS AND VIDEO ACCESSIBILITY ACT OF 2010 (CVAA)

#### I. COMPLIANCE WITH SECTION 255, 716, AND 718

1. Section 717(b)(1)(A) of the Act requires the Commission to provide an assessment of the level of compliance with sections 255, 716, and 718 of the Act in this Report.<sup>1</sup> To achieve this, in the *2016 CVAA Assessment Public Notice*, the Bureau sought comment on a variety of matters with respect to products and services made available to the public since the release of the *2014 CVAA Biennial Report* on October 8, 2014,<sup>2</sup> including:

- The level of compliance with the obligations of sections 255, 716, and 718 of the Act and the Commission’s implementing rules to make telecommunications and advanced communications services (ACS) equipment used with these services accessible to individuals with disabilities, and Internet browsers built into mobile phones accessible to individuals who are blind or visually impaired;<sup>3</sup>
- Whether and to what extent service providers and manufacturers are including people with disabilities in their market research, product design, testing, pilot demonstrations, and product trials;
- The extent to which covered entities are working cooperatively with organizations that have expertise with people with disabilities in their efforts to incorporate accessibility, usability, and compatibility of equipment and services throughout their processes for product design, development, and fabrication;
- The ease with which consumers can locate accessible services and devices in mainstream retail establishments;
- The extent to which accessible services and devices, including mobile phones with accessible Internet browsers, are offered with a range of low-end and high-end features, functions, and prices;
- When services and devices are not accessible, the extent to which providers and manufacturers are making them compatible with peripheral devices and specialized customer premises equipment commonly used by people with disabilities to achieve access;
- The extent to which devices covered under section 255 of the Act – that are used with “non-mobile” (landline and interconnected VoIP) services or with “mobile” (wireless) services

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<sup>1</sup> 47 U.S.C. § 618(b)(1)(A).

<sup>2</sup> *2016 CVAA Assessment Public Notice*, 31 FCC Rcd at 5359-61, paras. 7-13.

<sup>3</sup> In this regard, we specifically asked about the extent that input, control, and mechanical functions of telecommunications services, ACS, and devices used with these services, including mobile phones with Internet browsers, are locatable, identifiable, and operable (1) by people without vision, hearing, speech, or color perception; (2) by people with limited vision, hearing, color perception, manual dexterity, reach and strength, or cognitive skills; (3) by people with prosthetic devices; or (4) without time-dependent controls. *See id.* at 5360, para. 8.

(e.g., basic phones, feature phones, and smartphones) – are accessible to individuals who are blind or visually impaired;

- The extent to which providers and manufacturers subject to sections 255, 716 and 718, ensure access to information and user documentation for people with disabilities;
- The extent to which companies are providing training on the accessibility of their products and services to customer service representatives, technical support personnel and others having direct contact with the public; and
- The extent to which obligations under section 718 of the Act have had an impact on the accessibility of Internet browsers on mobile phones for individuals who are blind or visually impaired.

2. Comments in response to the *2016 CVAA Assessment Public Notice* were submitted by the following: the American Council of the Blind (ACB); Consumer Groups (joint comments);<sup>4</sup> CTIA – the Wireless Association (CTIA); and the Telecommunications Industry Association (TIA).

#### A. Comments Received on Accessibility

3. *Non-Mobile Phones and Non-Smartphones.*<sup>5</sup> In response to the *2016 CVAA Assessment Public Notice*, the American Council of the Blind (ACB) reports that “from a blindness perspective, there have not been significant advancements in recent years for products associated with traditional telephone services.”<sup>6</sup> ACB states that, although some accessible products exist, such as telephones that announce incoming callers, accessibility solutions for navigating and using interconnected VoIP systems, including the system used in ACB’s national office, remain inadequate.<sup>7</sup> With respect to mobile phones, ACB advocates for “accessible devices on the lower end of the spectrum” such as the “low-cost entry level phone that has accessibility built in” from Odin, a European manufacturer.<sup>8</sup>

4. CTIA mentions several feature phones that provide a variety of accessibility features for consumers who are blind or visually impaired.<sup>9</sup> Like ACB, CTIA points to the Odin VI mobile phone, highlighting that “it reads aloud everything that is on the screen and the buttons that are pressed, speaks the caller ID and battery charge, and is available in [multiple] languages.”<sup>10</sup> CTIA also reports that the Kyocera Verve feature phone “supports voice dialing, Bluetooth technology, and features a built-in screen

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<sup>4</sup> Telecommunications for the Deaf and Hard of Hearing, Inc.; National Association of the Deaf; Deaf and Hard of Hearing Consumer Advocacy Network; Hearing Loss Association of America; Association of Late-Deafened Adults, Inc.; Cerebral Palsy and Deaf Organization; Deaf Seniors of America; and the Deaf/Hard of Hearing Technology RERC (Consumer Groups).

<sup>5</sup> These categories of equipment include the following: (1) non-mobile devices, including analog, digital, and cordless telephones, that are used with landline and interconnected VoIP services (collectively “non-mobile phones”); and (2) devices used with wireless services, including basic phones used primarily or exclusively for telecommunications and feature phones used for telecommunications, ACS, and some other functions, but not including smartphones that are used for voice, text, data, and other computing capabilities (collectively, “non-smartphones”). See *2016 CVAA Biennial Report Public Notice*, 31 FCC Rcd 5360, para. 7 & n.26; see also Brian Flax, Differences Between a Smartphone and a Non-Smartphone, <http://techin.oureverydaylife.com/differences-between-smartphone-nonsmartphone-29334.html> (last visited Aug. 19, 2016).

<sup>6</sup> ACB Comments at 1.

<sup>7</sup> *Id.*

<sup>8</sup> *Id.* at 2.

<sup>9</sup> CTIA Comments at 15-16.

<sup>10</sup> *Id.* at 10.



reader and a slide out, tactile QWERTY keyboard,”<sup>11</sup> the Samsung Convoy 3 feature phone has “voice-command technology to place a call, send a message, send a picture, or look up a contact,”<sup>12</sup> and the LG A341 feature phone is equipped with a large display screen and text-to-speech technology for listening to texts.<sup>13</sup>

5. *Smartphones and Other Devices.*<sup>14</sup> ACB praises the “great improvements in the development and availability of mobile and wireless communications” in recent years,<sup>15</sup> and declares that the accessible smartphone is a “major barrier breaker for independence.”<sup>16</sup> ACB states that the three industry leaders, Apple, Google, and Microsoft, “have demonstrated a genuine desire to achieve equal access for consumers who are blind or visually impaired.”<sup>17</sup> It reports that Apple “created an accessible ecosystem for application developers, who have in turn created a marketplace for life-changing accessible solutions that have enhanced the independence of people who are blind or visually impaired.”<sup>18</sup> According to ACB, Google has done the same with its Android environment.<sup>19</sup> ACB explains that “various covered entities have been able to develop products that have accessible technology built into the operating systems, and available via multiple carriers at multiple price points, making universal access equal in cost to the average consumer.”<sup>20</sup>

6. ACB also praises major developers of smartphone *software* for having made “great strides towards increasing accessibility,”<sup>21</sup> and notes that “the number of inaccessible apps continues to shrink.”<sup>22</sup> ACB attributes this to third-party app developers “adhering to accessibility guidelines established by both Apple and Google for their respective mobile operating systems.”<sup>23</sup> ACB also reports a “solid effort by Microsoft to improve its complete range of software” with respect to the accessibility of ACS.<sup>24</sup> However, ACB notes as well that sometimes consumers lose accessibility “when operating systems and apps are updated, and new features have not been adequately tested.”<sup>25</sup>

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<sup>11</sup> *Id.* at 15.

<sup>12</sup> *Id.* at 15-16.

<sup>13</sup> *Id.* at 16.

<sup>14</sup> These categories of equipment include smartphones used for smartphones that are used for voice, text, data, and other computing capabilities, and other devices used for ACS, such as tablets, laptops, and personal computers.

<sup>15</sup> ACB Comments at 1.

<sup>16</sup> *Id.* at 2. ACB further suggests that “making accessible smart phones available to individuals who are blind or visually impaired on fixed or limited incomes would give them significant opportunities for greater community inclusion and independence.” *Id.*

<sup>17</sup> *Id.* at 2.

<sup>18</sup> *Id.* at 1-2. ACB reports further that Apple “has lead the way toward revolutionizing the way people who are blind can communicate via mobile ACS.” *Id.* at 1.

<sup>19</sup> *Id.* at 2.

<sup>20</sup> *Id.*

<sup>21</sup> *Id.* at 1.

<sup>22</sup> *Id.* at 2.

<sup>23</sup> *Id.*

<sup>24</sup> *Id.* at 3. ACB notes that Microsoft’s advancements include “being accessible on the Apple Macintosh operating software ecosystem,” making “strong improvements with their cloud platform,” and making “major fixes and improvements to their last major Windows update.” *Id.*

<sup>25</sup> *Id.* at 2.

7. CTIA emphasizes “consistency” and “customization” for people with disabilities as benefits stemming from a “platform-based approach” in operating systems such as Apple iOS, Google Android, and Microsoft Windows, which enables accessibility features to be generally available across a wide range of devices.<sup>26</sup> CTIA goes on to explain that wireless devices now contain features that address a wide range of disabilities, including those affecting hearing, vision, dexterity, speech and cognition.<sup>27</sup> For consumers with hearing loss, CTIA states that wireless phones include alternatives to audio alert notifications,<sup>28</sup> as well as features to enhance the audio and enable the user to better control the audio.<sup>29</sup> For consumers who are blind or visually impaired, CTIA provides information about several smartphones capable of offering voice dialing and screen readers, along with a variety of other accessibility features.<sup>30</sup> CTIA also mentions the HumanWare Communicator app that enables a text conversation between a deaf-blind user with a refreshable Braille display and a sighted user.<sup>31</sup>

8. For individuals with physical and dexterity impairments, CTIA states that voice commands and external hardware help to provide accessibility.<sup>32</sup> In addition, CTIA reports that the Talkitt application translates the speech of persons with “motor, speech, and language impairments” into “understandable speech,” which can enable users to communicate with their own voices.<sup>33</sup> CTIA also reports that “[w]ireless devices are becoming increasingly more useful for individuals with cognitive and learning disabilities.”<sup>34</sup> For example, CTIA states that manufacturers “offer innovative features to simplify functions and help a user stay focused.”<sup>35</sup> In addition, CTIA notes that some apps are available

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<sup>26</sup> CTIA Comments at 5, 10, 40. In addition, CTIA mentions a number of third-party applications that provide accessibility features for a wide variety of people with disabilities. *Id.* at 19-22.

<sup>27</sup> *Id.* at 10-15.

<sup>28</sup> *Id.* at 12 (stating that HTC’s LED alert provides “a visual notification or vibration for notifications including phone calls” and noting Samsung’s user personalized “vibration patterns to replace ringtones”); *id.* at 12-13 (noting the Taptic Engine on the Apple Watch, which “enables the watch to produce haptic feedback so that the user feels a gentle tap on the wrist for each new notification”).

<sup>29</sup> *Id.* at 12 (noting Samsung’s customizable features like Sound Balance, Adapt Sound, and Mono Audio; Blackberry’s Natural Sound “to improve sound quality from the phone’s speakers, which translates to a pair of headphones”; Crystal Talk from Motorola that “includes vocal amplification, background noise filtering, and articulation enhancement”; and the HTC Sidetone feature “providing immediate, low-level audio feedback of the user’s own voice during a phone call” and a feature that allows a user to “toggle sound input between mono and stereo sound”).

<sup>30</sup> For example, CTIA notes that Apple’s Voice Over screen reader provides “an audio description of everything that is happening onscreen and how to navigate it” and that Microsoft also “has enhanced its screen reader and keyboard/touch navigation technology.” *Id.* at 10-11. CTIA reports that Google’s Android and Apple’s iOS devices can connect wireless braille displays and users can navigate these devices using voice technologies. *Id.* at 11.

<sup>31</sup> *Id.* at 20.

<sup>32</sup> *Id.* at 13 (noting Android’s Switch Access, which “provides a touch-screen alternative”; the Sense Home widget, which provides a “context-sensitive menu of apps based on the user’s location”; the HTC One (M8) smartphone, which has a voice input feature, and Blackberry’s Word Substitution feature that “replaces specific text with preloaded text,” both of which minimize keystrokes; the Knock Code feature on LG devices that enables users to access the device “by tapping a pattern on the phone screen”; and a Blackberry “single-hand and hands-free option”).

<sup>33</sup> *Id.* at 21.

<sup>34</sup> *Id.* at 14.

<sup>35</sup> *Id.* (providing, as examples, Apple’s Guided Access feature, which “enables users to temporarily restrict an Apple device to a single app, disable areas of the screen that are not relevant to a task to limit distraction, and disable certain hardware buttons”; Samsung devices with “Easy Mode” that “configures the user’s home screen to provide

to improve word recognition,<sup>36</sup> permit audio reminders,<sup>37</sup> simplify dialing,<sup>38</sup> and serve as a means to provide emergency notifications to a list of contacts.<sup>39</sup> CTIA adds that mobile “personal assistant” features, such as Apple’s Speak Screen and Siri, Microsoft’s Cortana, BlackBerry’s Assistant, and Google Now, “can respond to voice commands, send messages, place calls, and set reminders for the users” and “add ease to everyday tasks and operations for all consumers, including individuals with disabilities.”<sup>40</sup> Finally, CTIA reports on certain devices designed to meet the needs of senior adults, which also may be able to address the needs of certain individuals with cognitive disabilities.<sup>41</sup>

9. *Internet Browsers Built into Mobile Phones.* ACB, the only entity to comment directly on the accessibility of Internet browsers built into mobile phones, reports that, “[s]ince the passage of the CVAA, there have been significant improvements in mobile web browsing.”<sup>42</sup> For example, ACB reports that “the use of improved hand gestures to navigate web content” has made “web access more efficient from a usability vantage.”<sup>43</sup> ACB also reports that “Google has recently updated its internal screen-reading software solution for its Chrome operating environment, which has made improvements in usability and quality control.”<sup>44</sup>

10. *New Technologies and New Applications of Existing Technologies.* Commenters representing both individuals who are deaf or hard of hearing (Consumer Groups) and industry stakeholders express optimism about improving the accessibility of services and equipment through new technologies, such as real-time text (RTT) and high definition voice (HD voice), and the implementation of text-to-911.

11. To begin with, Consumer Groups “applaud the progress that the Commission . . . has made with respect to RTT and its potential as an alternative to current-generation TTY technology.”<sup>45</sup>

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larger icons and a simpler layout to help eliminate distractions”; and Microsoft’s OneNote, which is designed to “assist users . . . to sustain attention”).

<sup>36</sup> *Id.* (mentioning Microsoft’s OneNote as having the capacity “to improve word recognition with the device’s syllabification tool”).

<sup>37</sup> *Id.* (noting that Blackberry allows users to “record, save, and share voice note reminders”).

<sup>38</sup> *Id.* at 21 (highlighting the UnusTactus application, which “simplifies smartphone access for users with cognitive disabilities by permitting a one-touch photo dialer button”).

<sup>39</sup> *Id.* (stating that the SOS QR application enables users “to send an emergency notification to a pre-populated list of contacts who, in addition to receiving a call or message, receive a map with the user’s location”; and that the UnusTactus application can send “an alert notification to a list of contacts if the user leaves a pre-defined area”).

<sup>40</sup> *Id.* at 14-15.

<sup>41</sup> *Id.* at 16 (explaining that the Doro 824 SmartEasy smartphone “includes a 5-inch display screen, larger tiles for texting, and remote access for other individuals to help the user complete a number of tasks, including entering contacts” and the Jitterbug Smart by GreatCall, “a large smartphone that supports Personal Operator, a personal assistant service, and voice typing, which converts speech into on-screen texts”).

<sup>42</sup> ACB Comments at 3. ACB notes that “the major smart phone competitors Apple iOS and Google Android continue to improve usability.” *Id.*

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

<sup>44</sup> *Id.*

<sup>45</sup> Consumer Groups Comments at 2. In October 2015, the FCC Disability Advisory Committee (DAC) recommended that the Commission initiate a rulemaking proceeding to explore whether RTT and other next-generation text-based communications solutions can meet or exceed the objectives of the Commission’s existing wireless TTY rules, and related matters. See *Recommendation of the FCC Disability Advisory Committee Ad Hoc Real-Time Text Subcommittee* (approved and adopted by the DAC Oct. 8, 2015), [https://apps.fcc.gov/edocs\\_public/attachmatch/DOC-335867A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/DOC-335867A1.pdf). In February 2016, the DAC adopted further

Consumer Groups assert that RTT should enable direct and seamless communication between people who are and people who are not deaf or hard of hearing using off-the-shelf technologies,<sup>46</sup> and endorse a gradual transition from TTY to RTT technology.<sup>47</sup> Likewise, TIA notes that the wireless industry is working to develop “alternative text-based communications like [RTT] as a way to facilitate the continued accessibility of communications services . . . in an IP-environment.”<sup>48</sup> CTIA states that consumers are “overwhelmingly” adopting wireless services and therefore “it is time for the Commission to move beyond the antiquated wireless TTY requirements imposed on new wireless networks and products.”<sup>49</sup>

12. Next, Consumer Groups suggest that HD voice and improved noise cancelling technology will result in “[c]learer, more natural sounding calls [that] will improve the communication abilities of all consumers and may help make it possible for hard of hearing people to make calls even without assistive technology.”<sup>50</sup> Similarly, CTIA recognizes the benefits of HD voice for “all consumers, but specifically improving call clarity for people with hearing loss.”<sup>51</sup> CTIA reports that AT&T, Sprint, T-Mobile, and Verizon all currently offer HD voice,<sup>52</sup> and that wireless handsets supporting HD voice are “available today at a variety of price points” from companies like Samsung, HTC, Apple, LG, Microsoft, Kyocera, and BlackBerry.<sup>53</sup> TIA also notes that the information and communications technology industry has “made significant gains in deploying newer technologies like HD voice.”<sup>54</sup>

13. With respect to the availability of text-to-911, Consumer Groups acknowledge that progress has been made, but note that only approximately 600 public safety answering points (PSAPs) that receive 911 emergency calls (approximately 10% of all PSAPs nationwide) have implemented this capability.<sup>55</sup> CTIA reports that “[s]ince 2014, all wireless carriers have expended substantial resources and deployed capabilities to support Text-to-911 services nationwide.”<sup>56</sup> In addition, CTIA notes that, in

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recommendations about issues the Commission should consider in a rulemaking proceeding about RTT and the TTY-to-RTT transition. *See Recommendation of the FCC Disability Advisory Committee Technology Transitions Subcommittee* (approved and adopted by the DAC Feb. 23, 2016), [https://apps.fcc.gov/edocs\\_public/attachmatch/DOC-337908A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/DOC-337908A1.pdf). In April 2015, the Commission initiated a rulemaking proceeding to explore these and related issues. *Transition from TTY to Real-Time Text Technology; Petition for Rulemaking to Update the Commission’s Rules for Access to Support the Transition from TTY to Real-Time Text Technology, and Petition for Waiver of Rules Requiring Support of TTY Technology*, Notice of Proposed Rulemaking, 31 FCC Rcd 6247 (2016).

<sup>46</sup> Consumer Groups Comments at 2.

<sup>47</sup> *Id.*

<sup>48</sup> TIA Comments at 7.

<sup>49</sup> CTIA Comments at 36.

<sup>50</sup> Consumer Groups Comments at 4; *see also Recommendation of the FCC Disability Advisory Committee Technology Transitions Subcommittee on HD Voice* (approved and adopted by the DAC June 16, 2016), [https://apps.fcc.gov/edocs\\_public/attachmatch/DOC-339903A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/DOC-339903A1.pdf).

<sup>51</sup> CTIA Comments at 6.

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

<sup>53</sup> *Id.* at 7.

<sup>54</sup> TIA Comments at 10.

<sup>55</sup> Consumer Groups Comments at 4; *see also* FCC, What You Need to Know About Text-to-911, <https://www.fcc.gov/consumers/guides/what-you-need-know-about-text-911> (Aug. 15, 2016) (providing a link to a list of areas where text-to-911 service is available).

<sup>56</sup> CTIA Comments at 35.

June 2015, it formed a “9-1-1 Location Accuracy Advisory Group,” which includes representatives of the disability community and “a broad cross-section of industry stakeholders and partners,” to provide guidance to wireless carriers on how to implement key elements of the FCC’s wireless 9-1-1 location accuracy requirements.<sup>57</sup> CTIA explains that it considers text-to-911 and 911 location accuracy to be an “equally shared priority for the wireless industry and representatives of the accessibility community.”<sup>58</sup>

14. *Hearing Aid Compatibility.* Consumer Groups state that individuals who are deaf or hard of hearing “continue to struggle to find phones, both non-mobile and wireless,” that are hearing aid compatible (HAC) and meet their accessibility needs.<sup>59</sup> Consumer Groups also find that “HAC phones often work better with some hearing aids than others.”<sup>60</sup> They state that, with respect to wireless phones, “proprietary direct connect solutions” are “limited and expensive options that only work with specific brands of hearing aids.”<sup>61</sup> They assert that, “if there were more HAC phones, finding a HAC phone that works with a particular hearing aid would be easier.”<sup>62</sup> In contrast, TIA reports that industry efforts have “resulted in a marketplace today in which most wireless handsets are hearing aid compatible.”<sup>63</sup> TIA notes that even T-rated handsets, originally having “posed particularly challenging HAC issues,” are at an 85% compliance level, marking a “significant improvement” over the past few years.<sup>64</sup>

15. Consumer Groups note with approval the Commission’s rulemaking proceeding on the industry and consumer joint consensus proposal which has a target of making 100% of mobile phones HAC if achievable, over time.<sup>65</sup> CTIA and TIA also take note of this joint consensus proposal in their comments.<sup>66</sup>

16. *ACS Components of Video Games.* On the issue of games and gaming systems, Consumer Groups reiterate accessibility concerns that they expressed in 2012 and 2014 that deaf and hard of hearing individuals are “unable to access or fully participate in games that use ACS components for communication between participants.”<sup>67</sup> Consumer Groups assert that relay services should be integrated

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<sup>57</sup> *Id.*

<sup>58</sup> *Id.*

<sup>59</sup> Consumer Groups Comments at 2.

<sup>60</sup> *Id.* at 3.

<sup>61</sup> *Id.*

<sup>62</sup> *Id.*

<sup>63</sup> TIA Comments at 5.

<sup>64</sup> *Id.*

<sup>65</sup> Consumer Groups Comments at 3 (citing *Improvements to Benchmarks and Related Requirements Governing Hearing Aid-Compatible Mobile Handsets; Amendment to the Commission’s Rules Governing Hearing Aid-Compatible Mobile Handsets*, Fourth Report and Order and Notice of Proposed Rulemaking, 30 FCC Rcd 13845 (2015)); see also *Improvements to Benchmarks and Related Requirements Governing Hearing Aid-Compatible Mobile Handsets*, WT Docket No. 15-285, Report and Order, FCC 16-103 (rel. Aug. 5, 2016) (implementing a consumer-industry consensus by increasing to 66% in two years and to 85% in five years, with additional time for service providers, the number of wireless handset models offered that must be HAC, and proposing to determine the achievability of a 100% compliance standard no later than 2024).

<sup>66</sup> CTIA Comments at 37-38; TIA Comments at 6.

<sup>67</sup> Consumer Groups Comments at 6; see also *2012 CVAA Biennial Report*, 27 FCC Rcd at 12221-22, paras. 44-45 (advocating for inclusion of relay services to make online gaming voice communication accessible to deaf and hard of hearing gamers); *2014 CVAA Biennial Report*, 29 FCC Rcd at 11920, para. 19. The Bureau extended the class waiver of the ACS accessibility rules for video game software until January 1, 2017. See *Implementation of Sections 716 and 717 of the Communications Act of 1934, as Enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010; Entertainment Software Association; Petition for Class Waiver of Sections 716*



into games so that deaf and hard of hearing gamers are not excluded from this “form of social interaction.”<sup>68</sup> Consumer Groups also assert that, since the *2014 CVAA Biennial Report*, the number of products and services with “virtual reality and other augmented reality” components has increased, and that these components make these products and services inaccessible to individuals who are deaf or hard of hearing.<sup>69</sup>

17. *Service Plans.* Consumer Groups reiterate concerns about the impact of wireless service plans that include data caps on consumers who are deaf or hard of hearing who rely on data and video communications services, in place of voice communications.<sup>70</sup> Specifically, Consumer Groups state that these caps result in consumers having to acquire “more expensive smartphones and use data at a high rate,” and further that such caps often result in “overage fees because [consumers] must exceed the monthly data allowance of their plans simply to meet their communications needs.”<sup>71</sup> In contrast, Consumer Groups claim that people who are not deaf or hard of hearing can “avoid using [data and video services] for basic communications by using their voice minutes, which are generally unlimited.”<sup>72</sup>

18. With respect to the availability of service plans responsive to the needs of consumers with disabilities, CTIA reports that “[w]ireless service providers continue to update and expand the array of services that are accessible to people with disabilities and seniors . . . providing wireless customers with numerous service plan options to meet a variety of specific communications needs.”<sup>73</sup> Additionally, CTIA responds to inquiries about affordability by reporting that providers offer “plans at a range of prices, and . . . a variety of post- and pre-paid plans to accommodate differing abilities to pay.”<sup>74</sup> CTIA also draws the Commission’s attention to “free data offerings” that “give consumers the benefits of using more data, without having to pay more” and states that this “has the potential to significantly benefit people with disabilities that may rely on data-intensive video streaming applications.”<sup>75</sup>

## **B. Tentative Findings on Accessibility**

19. *Section 255.* Based on the record provided in response to the *2016 CVAA Assessment Public Notice*, we tentatively find that little, if any, progress has been made since the *2014 CVAA Biennial Report* with respect to the number of non-smartphone devices used for telecommunications that are

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*and 717 of the Communications Act and Part 14 of the Commission’s Rules Requiring Access to Advanced Communications Services and Equipment by People with Disabilities*, Order, 30 FCC Rcd 10016 (CGB 2015).

<sup>68</sup> Consumer Groups Comments at 6.

<sup>69</sup> *Id.* at 6-7.

<sup>70</sup> *Id.* at 7-8; *see also 2012 CVAA Biennial Report*, 27 FCC Rcd at 12219, para. 38; *2014 CVAA Biennial Report*, 29 FCC Rcd at 11930, para. 37.

<sup>71</sup> Consumer Groups Comments at 7.

<sup>72</sup> *Id.*

<sup>73</sup> CTIA Comments at 5-6. CTIA identifies AT&T, Sprint, T-Mobile, Verizon, and U.S. Cellular as having plans designed to meet the needs of consumers who are deaf or hard of hearing, with options like data-only plans or messaging-only plans. *Id.* at 6. CTIA notes, for example, that T-Mobile allows the customer to select “the amount of 4G LTE data that he or she needs, including an unlimited data option” and notes that Sprint provides “a plan with unlimited voice, text, and data.” *Id.* at 8.

<sup>74</sup> *Id.* at 7. According to CTIA, “service providers are offering increased flexibility in their plan offerings, shared data plans, and plans with data rollover policies.” *Id.*

<sup>75</sup> *Id.* at 9 (noting, as examples, T-Mobile’s Music Freedom and Binge-On, music and video services with free data usage; Verizon’s go90 that provides video content with free data usage; and AT&T’s Sponsored Data that enables companies to “sponsor the data usage for specific content”).



accessible to individuals who are blind or visually impaired.<sup>76</sup> This tentative finding is further supported by the percentage of requests for assistance filed by consumers that allege that wireless phones made available to low-income individuals with disabilities by providers that participate in the Commission's Lifeline program either lack certain accessibility features, or are not accessible at all.<sup>77</sup> Additionally, we tentatively find, based on assertions made by ACB,<sup>78</sup> that solutions are needed to make equipment used with interconnected VoIP services accessible to individuals who are blind or visually impaired. At the same time, we tentatively find that a growing number of smartphones, including the telecommunications functions of these phones, are accessible to a wide range of individuals with disabilities.<sup>79</sup> Further, for individuals who are deaf or hard of hearing, we expect that the accessibility of telecommunications will be enhanced by the deployment of RTT, HD voice, and increasing numbers of HAC wireless handsets.<sup>80</sup>

20. *Section 716.* Comments filed in response to the *2016 CVAA Assessment Public Notice* support a tentative finding that little, if any, progress has been made with respect to the number of non-smartphone devices used for ACS that are accessible to individuals who are blind or visually impaired.<sup>81</sup> Comments also support a tentative finding that significant strides have been made in the accessibility of ACS features and functions on smartphones and other devices for a wide range of individuals with disabilities.<sup>82</sup> Both ACB and CTIA attribute these advances to a platform-based approach to accessibility,<sup>83</sup> although ACB also notes that consumers sometimes lose accessibility when system upgrades have not been adequately tested.<sup>84</sup>

21. *Section 718.* Comments submitted in response to the *2016 CVAA Assessment Public Notice* inquiry about the accessibility of Internet browsers built into mobile phones were sparse, but

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<sup>76</sup> See *supra* Attachment at para. 4 (CTIA reporting that the Odin VI, Kyocera Verve, Samsung Convoy feature phones have telecommunications functions that are accessible to individuals who are blind or visually impaired); see also *2014 CVAA Biennial Report*, 29 FCC Rcd at 11932, para. 40 (finding that “several feature phones now provide accessibility solutions for individuals who are blind or visually impaired”).

<sup>77</sup> See *infra* Attachment at Section III.A (Number and Nature of Complaints Received) (CGB reporting on consumer requests for assistance related to inaccessible wireless handsets received in conjunction with Lifeline services).

<sup>78</sup> See *supra* Attachment at para. 3 (ACB reporting that VoIP systems remain inadequate).

<sup>79</sup> See *supra* Attachment at paras. 5 (ACB reporting great improvements), 7-8 (CTIA reporting on a wide range of features that make telecommunications more accessible to individuals with hearing, vision, dexterity, speech and cognitive disabilities).

<sup>80</sup> See *supra* Attachment at paras. 11-12, 14.

<sup>81</sup> See *supra* Attachment at para. 4 (CTIA reporting that the Odin VI, Kyocera Verve, Samsung Convoy feature phones have telecommunications functions that are accessible to individuals who are blind or visually impaired); see also *2014 CVAA Biennial Report*, 29 FCC Rcd at 11932, para. 40 (finding that “several feature phones now provide accessibility solutions for individuals who are blind or visually impaired”).

<sup>82</sup> See *supra* Attachment at paras. 5 (ACB reporting great improvements), 7-8 (CTIA reporting on a wide range of features that make telecommunications more accessible to individuals with vision, hearing, dexterity, cognitive disabilities).

<sup>83</sup> See *supra* Attachment at paras. 5-7.

<sup>84</sup> See *supra* Attachment at para. 6; see also *2014 CVAA Biennial Report*, 29 FCC Rcd at 11934-35, para. 43 (noting that software updates can impair accessibility for users with disabilities). In addition, we note that consumers submitted only six requests for assistance and filed no informal complaints with the Commission with respect to alleged violations of sections 716 and 718 since the *2014 CVAA Biennial Report* was submitted to Congress. See *infra* Attachment at Section III.A (Number and Nature of Complaints Received). While we note the lack of such consumer filings during this period, we recognize that the failure to submit complaints to the Commission is not, by itself, sufficient to infer compliance with sections 716 or 718.

favorable.<sup>85</sup> Given the platform-based approach to accessibility that has resulted in the improved accessibility of ACS features and functions on smartphones,<sup>86</sup> including access by individuals who are blind or visually impaired, it seems logical to conclude that the accessibility features provided on these smartphones also enable access to the Internet browsers built into these smartphones. As such, we tentatively find that the accessibility of Internet browsers built into mobile phones has improved for individuals who are blind or visually impaired since the *2014 CVAA Biennial Report*.

22. *Accessibility gaps.* Although the comment record demonstrates that significant progress has been made to meet the accessibility obligations of sections 255, 716, and 718, we nevertheless tentatively find that there remain some accessibility gaps. In addition to the gaps related to non-smartphones, equipment used with interconnected VoIP services, and inadequately tested system upgrades (noted above),<sup>87</sup> Consumer Groups report other persistent gaps. These include concerns about inaccessible ACS components of video games and other products and services that may have ACS as one of their primary functions,<sup>88</sup> and the impact of caps in wireless service plans on consumers who rely on data and video communications services.<sup>89</sup>

### C. Comments Received on Information, Documentation, and Training

23. The *2016 CVAA Assessment Public Notice* sought comment on access by people with disabilities to user information and user documentation related to covered products and services, as well as the extent to which covered entities are providing training on the accessibility of their products and services to customer service representatives, technical support personnel and others having direct contact with the public.<sup>90</sup> These requirements are designed to ensure that telecommunications and advanced communications services, as well as Internet browsers built into mobile phones, are *usable* by individuals with disabilities.<sup>91</sup>

24. ACB states that major carriers, such as AT&T, Sprint, and Verizon, “provide print materials in alternative formats like Braille,” and “have customer service representatives trained across an array of accessibility issues.”<sup>92</sup> ACB adds that AT&T has a “Train the Trainer” program for store managers, “with a focus on accessible technology from a customer service relationship.”<sup>93</sup>

25. CTIA reports that manufacturers “ensure that their websites reflect information detailing the variety of accessible features and functions of their wireless devices.”<sup>94</sup> In addition, CTIA states that “[n]ationwide and regional carriers alike – including Sprint, Verizon, AT&T, U.S. Cellular, and T-Mobile

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<sup>85</sup> See *supra* Attachment at para. 9 (noting that only ACB commented on this issue, asserting that significant improvements have been made since the passage of the CVAA).

<sup>86</sup> See *supra* Attachment at paras. 5-7.

<sup>87</sup> See *supra* Attachment at paras. 3, 6.

<sup>88</sup> See *supra* Attachment at para. 16.

<sup>89</sup> See *supra* Attachment at para. 17.

<sup>90</sup> See *supra* Attachment at para. 1.

<sup>91</sup> Specifically, a product or service is “usable” if individuals with disabilities have access to the full functionality and documentation for the product or service, including instructions, product or service information (including accessible feature information), documentation and technical support functionally equivalent to that provided to individuals without disabilities. See 47 CFR §§ 6.3(l), 7.3(l), 14.21(c); see also 47 CFR §§ 6.11, 7.11, 14.20(d), 14.60(b)(4).

<sup>92</sup> ACB Comments at 2.

<sup>93</sup> *Id.* at 3.

<sup>94</sup> CTIA Comments at 32 (identifying the websites of Samsung, HTC, LG, and Apple as examples).

– offer accessibility pages on their websites” that provide information about “their respective accessible wireless offerings.”<sup>95</sup> CTIA goes on to promote its own website, AccessWireless.org, which, it says, enables users “to easily locate devices through the Global Accessibility Reporting Initiative (‘GARI’) database.”<sup>96</sup> CTIA further states that “an individual with a disability can go into a store or kiosk that sells wireless devices and obtain the device they need, or go online for even more options” where the products “are available in the same time frames as any other consumer wireless devices available in the market.”<sup>97</sup> CTIA also gives examples of how carriers and manufacturers “provide instructional information about how to use the accessible products and services they offer.”<sup>98</sup> Finally, CTIA reports that wireless companies “facilitate[e] internal training programs so that employees can identify suitable products to offer individuals with disabilities.”<sup>99</sup>

26. Nonetheless, Consumer Groups state that, because information is not readily available in retail settings, consumers cannot easily determine which phones best suit their needs.<sup>100</sup> Consumer Groups note, in particular, that employees of “big box and other types of retail outlets” lack the information to help consumers select an appropriate phone,<sup>101</sup> and they go on to suggest that “sales and service employees (both online and in physical stores) should be trained with respect to HAC phones and their capabilities” to facilitate a “less onerous” shopping experience.<sup>102</sup>

#### **D. Tentative Findings on Information, Documentation, and Training**

27. With respect to the usability of products and services,<sup>103</sup> we tentatively find that industry has made notable efforts to ensure the availability of information and documentation related to covered products and services, as well as training of personnel on the accessibility of their products and services.<sup>104</sup> Notwithstanding this tentative finding, we note that Consumer Groups continue to recommend additional training for point-of-sales personnel to assist consumers to determine which HAC phones best suit their needs.<sup>105</sup>

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<sup>95</sup> *Id.* at 31 (citations omitted).

<sup>96</sup> *Id.* at 15. CTIA explains that the GARI page “matches disabled individuals with a wireless device with features that best meet the needs of the individual” is the “third most popular page” on AccessWireless.org. *Id.* at 31.

<sup>97</sup> *Id.* at 15.

<sup>98</sup> *Id.* at 33. CTIA cites, for example, efforts by Odin Mobile, Verizon, AT&T, Bluegrass Cellular, and Sprint. *Id.* at 33-34.

<sup>99</sup> *Id.* at 33-34 (citing, for example, Verizon, T-Mobile, Microsoft, Sprint, and Bluegrass Cellular).

<sup>100</sup> Consumer Groups Comments at 3.

<sup>101</sup> *Id.*

<sup>102</sup> *Id.*

<sup>103</sup> *See supra* Attachment at para. 23.

<sup>104</sup> *See supra* Attachment at paras. 24-25 (discussing comments of ACB and CTIA).

<sup>105</sup> *See supra* Attachment at para. 26. We also note that a majority (17 of 19) requests for assistance involving service providers (filed with the Commission’s Disability Rights Office) focused predominantly on the failure to provide instructions or billing in an accessible format, accessible contact information, accessible directory assistance, or accessible customer service. *See infra* Attachment at Section III.A (Number and Nature of Complaints Received).

**E. Comments on Inclusion of People with Disabilities in Product and Service Design and Development**

28. The 2016 CVAA Assessment Public Notice sought comment on the extent to which covered entities have included people with disabilities in their efforts to conduct market research, product design, testing, pilot demonstrations, and product trials.<sup>106</sup>

29. ACB reports that it “continues to work with the leading manufacturers and developers to get ahead of the curve for assuring products will be accessible when they launch,” and that its relationship with Microsoft “has recently ramped up over the past six months.”<sup>107</sup> ACB adds that telephone carriers, such as AT&T, Verizon, and Sprint, have engaged it and its members over the past two years through, for example, “participation at national consumer conferences,” including the M-Enabling Summit, and through “frequent stakeholder calls.”<sup>108</sup> In addition, ACB states that Apple, Google, and Microsoft have engaged ACB members at their annual convention, updating them on new accessible product improvements and enabling them to test products and provide feedback.<sup>109</sup> ACB also notes that the FCC Disability Advisory Committee (DAC) provides opportunities for industry and consumer advocate engagement.<sup>110</sup> While these efforts demonstrate the ability of industry and consumers with disabilities to work together to increase accessibility, ACB encourages “broadening the network of stakeholder interactions and partnerships . . . [to include] a more diverse and wider range of covered entities.”<sup>111</sup> Similarly, Consumer Groups urge greater involvement of the deaf and hard of hearing community in the research and development of products and services and suggest that covered entities be required to report these research and development activities to the Commission.<sup>112</sup>

30. CTIA reports that, over the past two years, “the wireless industry has continued to step up its efforts to engage the accessibility community in an ongoing dialogue to ensure that wireless service providers and manufacturers understand the needs of the accessibility community.”<sup>113</sup> CTIA states, for example, that AT&T’s Corporate Accessibility Technology Office “ensures that [AT&T’s] products and services meet the needs of its customers with disabilities by assessing the accessibility implications of new projects.”<sup>114</sup> CTIA also reports that “Microsoft recently partnered with [ACB] to advance accessibility and enable planned updates for Microsoft’s products to meet the needs of individuals who are blind or visually-impaired.”<sup>115</sup> CTIA states further that, in 2014 and 2015, it participated in “nearly 30 accessibility-related events, including panels, sponsorships, conference[s], summits, webinars and

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<sup>106</sup> See *supra* Attachment at para. 1; see also 47 CFR §§ 6.7(b)(3), 7.7(b)(3). Covered entities must keep records about their efforts to consult with people with disabilities. See 47 U.S.C. § 618(a)(5)(A); 47 CFR § 14.31(a)(1).

<sup>107</sup> ACB Comments at 2.

<sup>108</sup> *Id.*

<sup>109</sup> *Id.* at 3.

<sup>110</sup> *Id.* TIA also reports that, through one of its members, TIA “has been an active participant and contributor to the discussions and recommendations of the FCC’s [DAC].” TIA Comments at 7.

<sup>111</sup> ACB Comments at 3.

<sup>112</sup> Consumer Groups Comments at 5, 8 (citing Consumer Groups PN Comments - CVAA Report Tentative Findings Comments, Docket No. 10-213 (filed Sept. 6, 2012) at 11).

<sup>113</sup> CTIA Comments at 27.

<sup>114</sup> *Id.* at 28.

<sup>115</sup> *Id.*

more.”<sup>116</sup> CTIA also reports that its members likewise engage representatives of the accessibility community.<sup>117</sup>

**F. Tentative Findings on Inclusion of People with Disabilities in Product and Service Design and Development**

31. We tentatively find that industry has expanded its consultation with individuals with disabilities with respect to the design and development of products and services. As reported by commenters in this proceeding, industry and organizations representing individuals with disabilities have engaged one another through the FCC DAC, consumer and industry conferences, and individually.<sup>118</sup>

**II. ACCESSIBILITY BARRIERS IN NEW COMMUNICATIONS TECHNOLOGIES**

32. Section 717(b)(1)(B) of the Act requires the Commission to provide an evaluation of the extent to which any accessibility barriers still exist with respect to new communications technologies. In the *2016 CVAA Assessment Public Notice*, the Commission sought comment on accessibility barriers with respect to new communication technologies that are both within the scope of the Act (e.g., covered under sections 255, 716, and 718) and outside the scope of the Act.<sup>119</sup> The Commission specifically sought comment on the extent to which accessibility barriers still exist with respect to communication services, hardware, software, applications, or plug-ins that have been deployed since the *2014 CVAA Biennial Report*, or other relatively new communications technologies.<sup>120</sup>

**A. Comments Received**

33. In response to the *2016 CVAA Assessment Public Notice*, commenters generally provide examples of new communications and other technologies that they assert will improve the quality of life for all consumers, including or particularly individuals with disabilities. For example, Consumer Groups, CTIA, and TIA all comment favorably on new communications technologies, such as RTT and HD voice, that will improve accessibility for individuals who are deaf or hard of hearing.<sup>121</sup> TIA also reports that significant gains have also been made in deploying HD voice and Bluetooth protocols that are available on HAC-enabled devices.<sup>122</sup>

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<sup>116</sup> *Id.* at 29 (stating that these events include the Super Mobility, CTIA’s annual wireless conference, the Hearing Loss Association of America’s annual convention, the Biennial Telecommunications for the Deaf and Hard of Hearing Conference, and the M-Enabling Summit).

<sup>117</sup> For example, CTIA references AT&T’s Advisory Panel on Access & Aging, which brings together various organizations to advise AT&T on issues related to disability and aging, and T-Mobile’s Accessibility Council, which facilitates information exchanges about accessible product and service enhancements and opportunities. *Id.* at 29-30.

<sup>118</sup> *See supra* Attachment at paras. 29-30.

<sup>119</sup> *2016 CVAA Assessment Public Notice*, 31 FCC Rcd at 5362, para. 14. In the *2012 CVAA Biennial Report*, the Commission rejected assertions that it should only consider “new communications technologies” that are not covered by the Communications Act and only those accessibility barriers that could not be eliminated with reasonable effort and expense. *See 2012 CVAA Biennial Report*, 27 FCC Rcd at 12222, para. 45. The Commission’s assessment of new communications technologies, therefore, is not limited to telecommunications, ACS, or Internet browser technologies covered under sections 255, 716, and 718 of the Act. *See 2012 CVAA Biennial Report*, 27 FCC Rcd at 12220, para. 43.

<sup>120</sup> *2016 CVAA Assessment Public Notice*, 31 FCC Rcd at 5362, para. 14.

<sup>121</sup> *See supra* Attachment at paras. 11-12.

<sup>122</sup> TIA Comments at 10.

34. TIA adds that it is difficult to definitively report on accessibility barriers in new communications technologies in a field that is continuously evolving.<sup>123</sup> Instead, it notes that industry continues to make “significant improvements to [its] technologies in ways that are beneficial to all consumers.”<sup>124</sup> TIA mentions, for example, that VoIP services, such as long-term evolution (LTE), “are being deployed broadly with an effort to ensure the usage is accessible for consumers with a variety of disabilities.”<sup>125</sup> In addition, TIA mentions “leveraging the evolution of multi-modal interfaces” that provide accessibility solutions, such as speech-to-text input and text-to-speech output.<sup>126</sup>

35. CTIA states that, to foster innovation, serve all consumers better, and break down accessibility barriers to new communications technologies, the Commission should “make more spectrum available for commercial use, promote infrastructure deployment, and rely on a ‘light touch’ regulatory scheme.”<sup>127</sup> CTIA also asserts that the “Internet of Things” and 5G “are poised to provide more connectivity” and improve access by people with disabilities, particularly with respect to video streaming and video communications services.<sup>128</sup> According to CTIA, advanced technologies also hold promise for improving health,<sup>129</sup> mobility and transportation,<sup>130</sup> and education for individuals with disabilities.<sup>131</sup>

36. In contrast, ACB reports that there are major barriers to accessibility by persons with vision loss to web conferencing, including systems offered by leading providers.<sup>132</sup> Specifically, ACB states that accessible conference materials, when converted into video streams and broadcast via the Internet, are not accessible to individuals who are blind or visually impaired.<sup>133</sup>

37. In addition, Consumer Groups reiterate accessibility concerns with respect to video conferencing services that they expressed in 2012 and 2014.<sup>134</sup> Specifically, Consumer Groups note the

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<sup>123</sup> *Id.*

<sup>124</sup> *Id.*

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

<sup>126</sup> *Id.*

<sup>127</sup> CTIA Comments at 38.

<sup>128</sup> *Id.* at 22.

<sup>129</sup> *Id.* at 23-24 (reporting, for example, that the wireless telehealth industry is rapidly leading to advancements to “remotely monitor patients. . . [and to] provide real-time health information and support, which has translated into observable outcomes and improved access to providers”).

<sup>130</sup> *Id.* at 24-26 (mentioning, for example, the development of automated vehicles, interactive public transportation information systems, and devices and systems that provide information about the individual’s surroundings and assist with navigation).

<sup>131</sup> *Id.* at 26-27 (asserting that “new technologies will make curriculum and educational tools even more accessible,” and mentioning existing technologies, such as Dragon Naturally Speaking and IBM’s ViaVoice speech-to-text software, Smartpen by Livescribe, and HeadMouse for individuals with physical impairments).

<sup>132</sup> ACB Comments at 3 (noting also “recent trends toward 360 video streaming and virtual reality (VR) environments”).

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

<sup>134</sup> Consumer Groups Comments at 6; *see also 2012 CVAA Biennial Report*, 27 FCC Rcd at 12206, para. 29; *2014 CVAA Biennial Report*, 29 FCC Rcd at 11920, para. 19. ACS is defined to include interoperable video conferencing services, which provide real-time video communications, including audio, to enable users to share information. 47 U.S.C. § 153(1), 153(27). Issues related to the *interoperability* of video conferencing services and equipment are the subject of a pending Commission proceeding. *See Implementation of Sections 716 and 717 of the Communications Act of 1934, as Enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010; Amendments to the Commission’s Rules Implementing Sections 255 and 251(a)(2) of the Communications*



importance of making video conferencing services interoperable with each other and with videophones provided by video relay service (VRS) providers in order to achieve access for their community.<sup>135</sup> They also note that relay services are “tethered to ten-digit telephone numbers,” which makes them “not accessible” through video conferencing services.<sup>136</sup> Finally, Consumer Groups state that the lack of accessible alerting features (e.g., vibration or flashing lights) continue to cause deaf and hard of hearing individuals to miss calls and messages, particularly video calls on smartphones.<sup>137</sup>

### **B. Tentative Findings on Accessibility Barriers in New Communications Technologies**

38. Based on comments filed in response to the *2016 CVAA Assessment Public Notice*, we tentatively find that, while new communications and other technologies hold the promise of improving the quality of life for all consumers, including individuals with disabilities, accessibility barriers still exist with respect to certain new communications technologies. Our tentative finding is supported by ACB’s and Consumer Groups’ reports about accessibility barriers to web conferencing and video conferencing services.<sup>138</sup>

### **III. COMPLAINTS RECEIVED PURSUANT TO SECTION 717**

39. Sections 717(b)(1)(C)-(F) of the Act require the Commission to report the following information with respect to complaints received pursuant to section 717(a) of the Act that allege violations of sections 255, 716, or 718 of the Act:

- the number and nature of complaints received during the two years that are the subject of the Commission’s Report, i.e., between January 1, 2014 and December 31, 2015;
- the actions taken to resolve such complaints, including forfeiture penalties assessed;
- the length of time that was taken by the Commission to resolve each such complaint; and
- the number, status, nature, and outcome of any actions for mandamus and any appeals filed.<sup>139</sup>

40. Effective October 8, 2013, the Commission revised the process for handling complaints filed under sections 255, 716 and 718 of the Act, pursuant to rules implementing section 717(a) of the

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*Act of 1934, as Enacted by the Telecommunications Act of 1996; and In the Matter of Accessible Mobile Phone Options for People who are Blind, Deaf-Blind, or Have Low Vision, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 14557, 14684-87, paras. 301-305 (2011) (ACS Report and Order and ACS FNPRM).*

<sup>135</sup> Consumer Groups Comments at 6. VRS is defined in the Commission’s rules as a telecommunications relay service that allows people with hearing or speech disabilities who use sign language to communicate with voice telephone users through a communications assistant (CA) and the use of video equipment over broadband services. The video link allows the CA to view and interpret the party’s signed conversation and relay the conversation back and forth with a voice caller. 47 CFR § 64.601(a)(40).

<sup>136</sup> Consumer Groups Comments at 6.

<sup>137</sup> *Id.* at 7; see also *2014 CVAA Biennial Report*, 29 FCC Rcd at 11920, para. 19. Consumer Groups suggest further that the “Internet of Things,” a system where objects, such as “smart lights,” are connected to the network and are able to exchange data (machine-to-machine communication), “holds some promise for alleviating alerting deficiencies, [but] they are in very early stages of development.” Consumer Groups Comments at 7.

<sup>138</sup> See *supra* Attachment at para. 36-37.

<sup>139</sup> 47 U.S.C. § 618(b)(1)(C)-(F).

Act.<sup>140</sup> The rules require that, before filing an informal complaint, a consumer must submit a “request for dispute assistance” (RDA) to the Commission’s Disability Rights Office (DRO) for help in resolving the consumer’s accessibility problem with a covered entity, and to give the covered entity an opportunity to resolve the dispute before the consumer files an informal complaint.<sup>141</sup> The Commission further established minimum requirements for information that must be contained in an RDA.<sup>142</sup> If the parties involved in an RDA do not reach a settlement within 30 days after the filing of an RDA, the parties may agree to extend the time for resolution in 30-day increments, or the requester may file an informal complaint with the Enforcement Bureau.<sup>143</sup>

41. The Commission’s complaint rules also established minimum requirements for information that must be contained in an informal complaint.<sup>144</sup> These rules further specify that upon receipt, the Commission must forward an informal complaint to the service provider or equipment manufacturer named in or implicated by the complaint.<sup>145</sup> The service provider or manufacturer then must file with the Commission and serve an answer responsive to the complaint and any Commission inquiries, and serve the complainant and the Commission with a non-confidential summary of that answer within 20 days of service of the complaint.<sup>146</sup> Within 180 days after receipt of the complaint, the Commission must conclude an investigation into the merits of the complaint and issue its order determining whether a violation has occurred.<sup>147</sup> It may, in such order, or in a subsequent order, direct the service provider to bring the service or, in the case of a manufacturer, the next generation of the equipment, into compliance with the requirements of section 255, 716, or 718 within a reasonable period of time and take other authorized and appropriate enforcement action.<sup>148</sup>

42. When the Commission established the RDA process, it anticipated that this process would allow for the resolution of consumer accessibility concerns with covered entities through dialogue and negotiation, thereby reducing the need for filing informal complaints against such entities, and consequent enforcement action.<sup>149</sup> We continue to believe that the RDA process has succeeded in this

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<sup>140</sup> See 47 CFR §§ 14.32 (consumer dispute assistance), 14.34-14.37 (informal complaints), 14.38-14.52 (formal complaints); see also *New Procedures for Telecommunications and Advanced Communications Accessibility Complaints*, Public Notice, 28 FCC Rcd 15712 (CGB 2013).

<sup>141</sup> Prior to October 8, 2013, consumers were able to file informal complaints with DRO alleging a violation of section 255 of the Act without the prerequisite filing of an RDA. A consumers may file a formal complaint with the Enforcement Bureau without first submitting an RDA or an informal complaint. 47 CFR §§ 14.38-14.52.

<sup>142</sup> 47 CFR § 14.32(b).

<sup>143</sup> 47 CFR § 14.32(e); see also *Implementation of Sections 716 and 717 of the Communications Act of 1934, as Enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010; Amendments to the Commission’s Rules Implementing Sections 255 and 251(a)(2) of the Communications Act of 1934, as Enacted by the Telecommunications Act of 1996; and In the Matter of Accessible Mobile Phone Options for People who are Blind, Deaf-Blind, or Have Low Vision*, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 14557, 14658, para. 237 (2011) (*ACS Report and Order* and *ACS FNPRM*).

<sup>144</sup> 47 CFR § 14.34(b).

<sup>145</sup> 47 CFR § 14.35(a).

<sup>146</sup> 47 CFR § 14.36(b)-(c). The complainant may then file a reply. 47 CFR § 14.36(d).

<sup>147</sup> 47 U.S.C. § 618(a)(3)(B), (a)(4); see also 47 CFR § 14.37(a).

<sup>148</sup> 47 U.S.C. § 618(a)(3)(B)(i); see also 47 CFR § 14.37(b). Any manufacturer or service provider that is the subject of such order has a reasonable opportunity to comment on the Commission’s proposed remedial action before the Commission issues a final order with respect to that action. 47 U.S.C. § 618(a)(4); see also 47 CFR § 14.37(c).

<sup>149</sup> See *2012 CVAA Biennial Report*, 27 FCC Rcd at 12224, para. 49, n.148.

respect, and that the informal complaint process has further encouraged service providers and equipment manufacturers to comply with the accessibility rules.<sup>150</sup>

#### **A. Number and Nature of Complaints Received**

43. From January 1, 2014, to December 31, 2015, consumers filed 45 RDAs alleging violations of section 255, 716, or 718 of the Act.<sup>151</sup> Of these 45 RDAs, 26 RDAs (58%) involved the accessibility and usability of equipment and 19 RDAs (42%) involved the accessibility and usability of services. Of the 45 RDAs filed during the period covered by this Report, 39 RDAs (87%) alleged violations of section 255 and six RDAs (13%) alleged violations of sections 716 and 718.

44. Equipment-related RDAs raised a wide range of accessibility issues by consumers with disabilities. Consumers reported feature phones that lacked text-to-speech functionality or that had keyboards that were hard to read or buttons that were too small to use. Others reported handsets that had poor sound quality or did not provide sidetone.<sup>152</sup> Of the 45 RDAs filed during the reporting period, 14 RDAs (31%) involved inaccessible wireless handsets received in conjunction with subscriptions for telephone services under the Commission's Lifeline program.

45. RDAs involving service providers focused predominantly on the failure to provide instructions or billing in an accessible format, accessible contact information, accessible directory assistance, or accessible customer service. More specifically, four RDAs alleged an inability to access billing information. Most of these were from consumers who are blind or visually impaired, who expressed long-standing frustrations with not being able to acquire access to their accounts. Some of the consumers were facing imminent service cut-offs at the time they filed their complaint or RDA, due to an inability to access their billing information. Another five RDAs came from consumers who, because they are blind or visually impaired, sought free access to a phone company's 411 directory assistance services because they could not access the free text-based telephone directory information provided by their service provider. Another eight RDAs were from consumers who are deaf or hard of hearing. They alleged, for example, that certain service providers were not accessible either because they refused to speak through a handset and instead relied on headsets with inadequate sound quality, or notified the consumer about his service appointments by phone rather than text message. One deaf individual was unable to verify his account using a relay service and was asked to come into the store to do so in person. However, once on site, he was expected to communicate via speaker phone, which was equally inaccessible. Another deaf consumer reported that a customer service representative refused to change his family's phone service, as requested, because the consumer called through a video relay service. Finally, two RDAs were filed by consumers with other types of disabilities who had difficulty negotiating interactive voice response (IVR) systems.

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<sup>150</sup> See 2014 CVAA Biennial Report, 29 FCC Rcd at 11942, para. 56.

<sup>151</sup> Although consumers submitted an additional 306 requests for assistance during this period, typically using the Commission's online complaint filing system, DRO determined that these requests did not allege violations of section 255, 716, or 718 of the Act or the Commission's rules implementing those sections. These requests, therefore, are not included in this Report. DRO handles requests for assistance that allege violations of other provisions of the Act by converting those requests into informal complaints for further DRO processing (if they are related to accessibility) or referring them to the FCC's Consumer Inquiries and Complaints Division (if they are unrelated to accessibility). DRO also handles requests for assistance that allege violations of statutes outside of the Commission's jurisdiction by sending these to the relevant federal agency (e.g., complaints alleging violations of the Americans with Disabilities Act are sent to the Department of Justice).

<sup>152</sup> "Sidetone is the immediate, low-level audio feedback of your own voice during a phone call." HTC, Re-Instating the Sidetone Option, <http://blog.htc.com/2015/09/re-instating-the-sidetone-option/> (Sept. 8, 2015).

## **B. Actions Taken to Resolve Accessibility Complaints**

46. Under the RDA process, DRO contacts the consumer and the manufacturer or service provider to help resolve the accessibility or usability problem. DRO was able to facilitate a resolution between the consumer and the manufacturer or service provider for 39 of the 45 RDAs filed during the period covered by this Report.<sup>153</sup> Of the remaining RDAs, one RDA was withdrawn by the consumer.<sup>154</sup> DRO was not able to facilitate a full resolution for three RDAs.<sup>155</sup> Resolution of two RDAs was suspended pending resolution of similar accessibility issues involving the same covered entity.

47. No consumer chose to escalate his or her RDA to an informal complaint for investigation by the Enforcement Bureau. Furthermore, the Commission did not assess any forfeiture penalties for accessibility-related violations during the period covered by this Report. Based on this experience, it appears that the RDA process was effective in achieving the successful and cooperative resolution of most alleged violations of sections 255, 716, and 718 that were brought to the attention of DRO during the period covered by this Report.

## **C. Time Used to Resolve Accessibility Complaints**

48. As noted above, a consumer must submit an RDA and allow DRO 30 days to facilitate a resolution of the problem before the consumer may file an informal complaint with the Enforcement Bureau. The consumer may extend the time period for resolution in 30-day increments. Of the RDAs that were filed during the reporting period, the RDA process was completed within 30 days for 10 RDAs (22%), within 60 days for six RDAs (13%), within 90 days for nine RDAs (20%), within 180 days for 13 RDAs (29%), and within a year for four RDAs (9%). There are three RDAs (7%) that remain open and are not yet resolved. No complaints, either informal or formal, were filed during the period covered by this Report.

## **D. Actions for Mandamus and Appeals Filed**

49. There were no actions for mandamus or appeals filed with respect to complaints during the period covered by this Report.

## **IV. EFFECT OF SECTION 717'S RECORDKEEPING AND ENFORCEMENT REQUIREMENTS ON THE DEVELOPMENT AND DEPLOYMENT OF NEW COMMUNICATIONS TECHNOLOGIES**

50. Section 717(a) requires the Commission to have recordkeeping and enforcement procedures for service providers and equipment manufacturers that are subject to sections 255, 716, and 718.<sup>156</sup> Section 717(b)(1)(G) of the Act requires the Commission to provide an assessment of the effect

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<sup>153</sup> For example, in separate cases, resolutions were achieved by providing a consumer with an accessible handset, enabling images and text displayed on a consumer's phone to be magnified, and directing consumers to a toll-free directory assistance number.

<sup>154</sup> The consumer withdrew the RDA when he found a work-around solution for inaccessible visual indicators.

<sup>155</sup> These RDAs involved the following: a cellular network that could not modify the number of times an incoming call would ring before transferring to voicemail; a request from a consumer with a disability for a phone with a built-in recording device, which may be prohibited due to privacy law; and a request involving multiple parties and accessibility issues, some of which have been resolved, while others are pending.

<sup>156</sup> 47 U.S.C. § 618(a). Under the Commission's rules, service providers and equipment manufacturers must maintain records to demonstrate compliance with sections 255, 716, and 718 when a complaint is filed. 47 CFR § 14.36(a). Covered entities also must certify annually to the Commission that they have kept records pertaining to the accessibility of their products. *See* 47 U.S.C. § 618(a)(5)(B); 47 CFR § 14.31. In response to an informal complaint, the manufacturer or service provider "must produce documents demonstrating its due diligence in exploring accessibility and achievability . . . throughout the design, development, testing, and deployment stages of a product or service." 47 CFR § 14.36(a). The Commission must investigate complaints filed under these sections

of the requirements of section 717 of the Act on the development and deployment of new communications technologies.<sup>157</sup> In the *2016 CVAA Assessment Public Notice*, the Commission sought comment on the impact, if any, that the accessibility recordkeeping requirements and enforcement measures, including the requirement for consumers to request dispute assistance from the Commission as a prerequisite to filing informal complaints, have had on the development and deployment of new communications technologies.<sup>158</sup> The Commission also asked whether service providers and equipment manufacturers have identified best practices with respect to the recordkeeping requirements that can be shared with others.<sup>159</sup>

#### A. Comments Received

51. In response to the *2016 CVAA Assessment Public Notice*, Consumer Groups assert that the Commission should apply the recordkeeping and enforcement requirements of section 717 of the Act to “new communications technologies” that are both within the scope of the Act (e.g., covered under sections 255, 716, and 718) and outside the scope of the Act.<sup>160</sup> TIA notes that its members continue to comply with the recordkeeping and certification requirements.<sup>161</sup> It also suggests that the Commission should “allow recordkeeping processes to be customized to each company’s own internal operations” and be flexible “in how it assesses the efforts taken by individual companies to meet the recordkeeping obligation.”<sup>162</sup> TIA also believes that the recordkeeping and enforcement requirements “are working and generally serve [as] an effective mechanism.”<sup>163</sup> In contrast, CTIA suggests steps the Commission can take to improve the RDA process by establishing “clear expectations about potential resolutions and outcomes,” which will result in improved consistency and greater collaboration.<sup>164</sup>

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and issue orders on such investigations within 180 days after an informal complaint is filed, unless the complaint is resolved before that time. 47 CFR § 14.37(a).

<sup>157</sup> 47 U.S.C. § 618(b)(1)(G).

<sup>158</sup> *2016 CVAA Assessment Public Notice*, 31 FCC Rcd at 5362, para. 15. No comments were received in response to the Commission’s inquiry about the extent to which these recordkeeping and enforcement obligations increased collaboration among industry, consumers with disabilities, and other stakeholders. *Id.*

<sup>159</sup> *Id.*

<sup>160</sup> Consumer Groups Comments at 8; *see also supra* note 119. Consumer Groups also recommend that covered entities that request waivers “because accessibility is not achievable should be required to report on the number of non-accessible and accessible units sold.” Consumer Groups Comments at 9 (citing Consumer Groups PN Comments - CVAA Report Tentative Findings Comments, Docket No. 10-213 (filed Sept. 6, 2012) at 11). To date, no such waivers have been requested.

<sup>161</sup> TIA Comments at 8 (noting also that “[t]he GARI database serves as the mechanism to maintain records” and as a way for manufactures to provide “information about the accessibility of their products”).

<sup>162</sup> *Id.* at 9.

<sup>163</sup> *Id.* at 8.

<sup>164</sup> CTIA Comments at 40-41; *see also* Attachment at Section III (Complaints Received Pursuant to Section 717). In particular, CTIA suggests improving the screening process, tempering any misplaced resolution expectations, and dismissing requests when a consumer does not engage in the process or when a solution “within the scope of the FCC’s rules is offered.” CTIA Comments at 41. As we noted above, we continue to believe that the RDA process has succeeded in allowing for the resolution of consumer accessibility concerns with covered entities through dialogue and negotiation, thereby reducing the need for filing informal complaints against such entities, and consequent enforcement action. *See* Attachment at Section III (Complaints Received Pursuant to Section 717). We are confident that the RDA process will continue to evolve and improve over time.

**B. Tentative Findings on the Effect of Section 717's Recordkeeping and Enforcement Requirements on the Development and Deployment of New Communications Technologies**

52. Consistent with the CVAA, Commission rules regarding accessibility recordkeeping and enforcement apply only to entities that are subject to sections 255, 716, and 718 of the Act.<sup>165</sup> Nonetheless, for purposes of the Report, we consider the effect of these requirements on the development and deployment of new communications technologies that are both within and outside the scope of the Act.<sup>166</sup>

53. We tentatively find that nothing in the record indicates that section 717's recordkeeping and enforcement requirements have hindered the development and deployment of new communications technologies. We also base this tentative finding on the continued growth in the number and types of new communications technologies that have emerged or are emerging, as reported by commenters in this proceeding, such as RTT, HD voice, LTE, the Internet of Things, and 5G, and the application of new communications technologies for improving health, mobility and transportation, and education.<sup>167</sup>

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<sup>165</sup> 47 U.S.C. § 618(a).

<sup>166</sup> *See supra* note 119.

<sup>167</sup> *See supra* Attachment at Section II (Accessibility Barriers in New Communications Technologies).