

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

In the Matter of
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
CG Docket No. 10-213

BIENNIAL REPORT TO CONGRESS
AS REQUIRED BY THE
TWENTY-FIRST CENTURY COMMUNICATIONS
AND VIDEO ACCESSIBILITY ACT OF 2010

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By the Chief, Consumer and Governmental Affairs Bureau:

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I. INTRODUCTION AND SCOPE OF REPORT

1. We submit this Biennial Report (Report) to the Committee on Commerce, Science, and
Transportation of the U.S. Senate and the Committee on Energy and Commerce of the U.S. House of
Representatives, in accordance with the Twenty-First Century Communications and Video Accessibility
Act of 2010 (CVAA).¹ The Report assesses industry compliance over the past two years with sections
255, 716, and 718 of the Communications Act of 1934, as amended (the Act). These sections require
telecommunications and advanced communications services and equipment, and Internet browsers built
into mobile phones (collectively, covered products and services) to be accessible to and usable by

¹ 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); see also 47 U.S.C. § 618(b).

individuals with disabilities.² The Report also addresses accessibility barriers to new communications technologies,³ and the effect of the accessibility-related recordkeeping and enforcement requirements under section 717 on the development and deployment of such technologies.⁴ Finally, the Report provides information about the number and nature of, and actions taken to resolve, complaints alleging violations of sections 255, 716, and 718 for the period of January 1, 2020, through December 31, 2021, including the length of time that the Federal Communications Commission (FCC or Commission) took to resolve such complaints, and the number, status, nature, and outcome of any actions for mandamus filed, and of any appeals filed, pertaining to such complaints.⁵

2. To prepare this Report’s findings, the Commission’s Consumer and Governmental Affairs Bureau (CGB or Bureau) released two public notices. On February 16, 2022, the Bureau issued the *2022 CVAA Assessment Public Notice* inviting comments concerning the level of accessibility and usability of covered products and services, as well as the existence of accessibility barriers to new communications technologies since the release of the *2020 CVAA Biennial Report*.⁶ The Bureau also sought comment on any impact that the accessibility recordkeeping requirements and enforcement measures may have had on the development and deployment of new communications technologies.⁷ Commenters who filed were: American Council of the Blind (ACB); American Foundation for the Blind (AFB); Center for Advanced Communications Policy (CACAP); Consumer Technology Association (CTA); CTIA – The Wireless Association (CTIA); Deaf and Hard of Hearing Consumer Advocacy Organizations (DHH CAO); and Hawaii Broadband & Digital Equity Office et al. (HBDE).⁸ On June 22,

² 47 U.S.C. § 618(b)(1)(A); *see also* 47 U.S.C. §§ 255, 617, 619; 47 CFR pts. 6, 7, 14.

³ 47 U.S.C. § 618(b)(1)(B). For purposes of this Report, “new communications technologies” may be either within or outside the scope of telecommunications, advanced communication services, or Internet browser technologies covered under sections 255, 716, and 718 of the Act. *See, e.g., 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, 31 FCC Rcd 11065, 11084, para. 44 & n.165 (CGB 2016) (*2016 CVAA Biennial Report*). As technology evolves, Congress may wish to consider whether updates to the CVAA are needed to keep pace with these new methods of communication.

⁴ 47 U.S.C. § 618(b)(1)(G). Section 717(a) 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 customer premises equipment commonly used by people with disabilities to achieve access. 47 U.S.C. § 618(a)(5)(A). Under the Commission’s rules, covered entities must certify annually to the Commission that they have kept records in accordance with this requirement. *See* 47 U.S.C. § 618(a)(5)(B); 47 CFR § 14.31. The FCC reminds covered entities each year of these certification requirements. *See Accessibility Recordkeeping Compliance Certification and Contact Information Reporting Requirements*, Public Notice, 35 FCC Rcd 943 (CGB 2020). Section 717(a) also contains procedures for complaints alleging violations of sections 255, 716, or 718. 47 U.S.C. § 618(a)(1)-(4); 47 CFR §§ 14.30-14.38. 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).

⁵ 47 U.S.C. § 618(b)(1)(C)-(F).

⁶ *Consumer and Governmental Affairs Bureau Seeks Comment on the Accessibility of Communications Technologies for the 2020 Biennial Report Required by the Twenty-First Century Communications and Video Accessibility Act*, CG Docket No. 10-213, Public Notice, DA 22-160 (CGB Feb. 16, 2022) (*2022 CVAA Assessment Public Notice*).

⁷ *Id.* at para. 14.

⁸ Comments by DHH CAO were jointly filed by Telecommunications for the Deaf and Hard of Hearing, Inc., American Association of the DeafBlind, Association of Late-Deafened Adults, Center on Access Technology, Communication Service for the Deaf, Conference of Educational Administrators of Schools and Programs for the

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2022, the Bureau released the *2022 CVAA Tentative Findings Public Notice*.⁹ CACP, CTA, and the National Federal of the Blind (NFB) filed comments in response to this second notice.¹⁰

3. The Commission’s Biennial Reports to Congress issued since enactment of the CVAA have marked the progress of access to advanced communications services and equipment, telecommunications services and equipment, and internet browsers built into mobile phones.¹¹ In this Biennial Report, we find that this progress has continued over the last two years. Companies launched new products with accessibility features built-in and introduced new accessibility interfaces. However, consumers identified products and services that were not accessible during this time period. In particular, commenters discussed how people with disabilities were unable to use features of some video conferencing services needed for work, school, and healthcare during the pandemic.

II. PROVISIONS OF THE CVAA COVERED BY THIS REPORT

4. Congress requires our Report to focus on three specific provisions of the CVAA: sections 255, 716 and 718.¹²

5. *Section 255.* Section 255 requires providers of telecommunications service and manufacturers of telecommunications equipment or customer premises equipment to ensure that such services and equipment are accessible¹³ to and usable¹⁴ by individuals with disabilities, if readily

Deaf, Deaf Seniors of America, Hearing Loss Association of America, National Association of the Deaf, Northern Virginia Resource Center of Deaf and Hard of Hearing Persons, Registry of Interpreters for the Deaf, and the Rehabilitation Engineering Research Center on Technology for the Deaf and Hard of Hearing.

⁹ *Consumer and Governmental Affairs Bureau Seeks Comment on Tentative Findings for the 2020 Twenty-First Century Communications and Video Accessibility Act Biennial Report*, CG Docket No. 10-213, Public Notice, DA 22-661 (CGB June 22, 2022) (*2022 CVAA Tentative Findings Public Notice*); see also 47 U.S.C. § 618(b)(2) (requiring the Commission to seek public comment on its tentative findings prior to submission of each biennial report to Congress).

¹⁰ For clarity, we cite to comments submitted in response to this second Public Notice as “Tentative Findings Comments.”

¹¹ See, e.g., *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, 35 FCC Rcd 11227 (2020) (*2020 CVAA Biennial Report*); *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, 33 FCC Rcd 9828, (CGB 2018) (*2018 CVAA Biennial Report*); *2016 CVAA Biennial Report*, 31 FCC Rcd at 11084, para. 44 & n.165; *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, 11911-12, para. 3 (CGB 2014) (*2014 CVAA Biennial Report*); *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, 12220-22, paras. 43, 45 (CGB 2012) (*2012 CVAA Biennial Report*).

¹² 47 U.S.C. § 618(b)(1)(A); 47 U.S.C. §§ 255, 617, 619. Comments addressed to compliance with accessibility provisions that fall outside these specific CVAA provisions are not addressed in this Report.

¹³ To be “accessible” for purposes of this provision, individuals with varying abilities must be able to locate, identify, and operate the input, control, and mechanical functions of a product or service, and be able to access the output or display of all information necessary to operate and use the product or service. See 47 CFR § 14.21(b).

¹⁴ The term “usable” for purposes of this provision means that individuals with disabilities have access to the full functionality and documentation for the product, including instructions, product information (including accessible

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achievable.¹⁵ When these requirements are not readily achievable, covered entities must ensure that their services and equipment are compatible with existing peripheral devices or specialized customer premises equipment commonly used by individuals with disabilities to achieve access, if readily achievable.¹⁶ Pursuant to the Commission's rules, section 255's accessibility obligations extend as well to interconnected voice over Internet protocol (VoIP) service providers and equipment manufacturers.¹⁷

6. *Section 716.* Section 716 requires providers of advanced communications services and equipment 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").¹⁸ Advanced communications services include (1) interconnected VoIP service; (2) non-interconnected VoIP service; (3) electronic messaging service; and (4) interoperable video conferencing service.¹⁹ In contrast to interconnected VoIP services, which enable people to make and receive calls to and from the public switched telephone network,²⁰ non-interconnected VoIP services include services that enable real-time voice communications that may not interconnect with the public switched telephone network.²¹ Electronic messaging services include services such as e-mail, short message service text messaging, and instant messaging, which enable real-time or near real-time text messages between individuals over

feature information), documentation and technical support functionally equivalent to that provided to individuals without disabilities. *See* 47 CFR § 14.21(c).

¹⁵ 47 U.S.C. § 255(b)-(c); *see also* 47 CFR pts. 6, 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, 6448-49, para. 77 (1999); *see also* 47 CFR pt. 6. Equipment covered under section 255 includes, but is not limited to, telecommunications equipment and consumer premises equipment, 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>.

¹⁶ 47 U.S.C. § 255(d).

¹⁷ *See IP-Enabled Services; Implementation of Sections 255 and 251(a)(2) of the Communications Act of 1934, as Enacted by the Telecommunications Act of 1996: Access to Telecommunications Service, Telecommunications Equipment and Customer Premises Equipment by Persons with Disabilities; Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; Use of N11 Codes and Other Abbreviated Dialing Arrangements*, Report and Order, 22 FCC Rcd 11275 (2007).

¹⁸ 47 U.S.C. § 617(a)(1), (b)(1), (g); 47 CFR §§ 14.20(a)(1)-(2), 14.10(b).

¹⁹ 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.*

²⁰ *See* 47 U.S.C. § 153(25) (referencing 47 CFR § 9.3).

²¹ *See* 47 U.S.C. § 153(36).

communications networks.²² Interoperable video conferencing services provide real-time video communications, including audio, to enable users to share information.²³

7. The accessibility requirements for section 716 may be satisfied by either: (1) building accessibility into the service or equipment;²⁴ or (2) using third-party applications, peripheral devices, software, hardware, or customer premises equipment that is available to consumers at nominal cost and that individuals with disabilities can access.²⁵ 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 customer premises equipment commonly used by individuals with disabilities to achieve access, unless that is not achievable.²⁶

8. *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.²⁷ This requirement may be satisfied with or without the use of third-party applications, peripheral devices, software, hardware, or customer premises equipment that is available to consumers at nominal cost and that individuals with disabilities can access.²⁸

III. COMPLIANCE WITH SECTIONS 255, 716, AND 718

9. Based on the comments filed in response to the *2022 CVAA Assessment Public Notice* and the *2022 CVAA Tentative Findings Public Notice*, a review of the complaints filed, and as described further herein, we affirm our tentative findings with respect to compliance with obligations contained in sections 255, 716, and 718. During the two years since the Commission's last Biennial Report, we find that a variety of new and enhanced features have been made available that make more devices and features accessible to a wider community of people with disabilities. However, not all people with disabilities can access these improvements, and some accessibility gaps persist with regard to these services and equipment.

A. Accessibility

10. Commenters discuss new technologies that provide improved access to telecommunications and advanced communications services and equipment,²⁹ and they also identify technologies that have accessibility gaps.³⁰ The comments show continuing accessibility interface improvements for people with mobility disabilities. However, the comments also indicate that people who use braille readers have limited accessibility for at least some types of advanced communications services. There have been new developments in apps that permit some people who are deaf, hard of

²² See 47 U.S.C. § 153(19).

²³ 47 U.S.C. § 153(27).

²⁴ 47 U.S.C. § 617(a)(2)(A), (b)(2)(A).

²⁵ 47 U.S.C. § 617(a)(2)(B), (b)(2)(B).

²⁶ 47 U.S.C. § 617(c).

²⁷ 47 U.S.C. § 619(a); 47 CFR § 14.61(a).

²⁸ 47 U.S.C. § 619(b); 47 CFR § 14.61(b).

²⁹ For instance, CTA states that industry innovations will continue to ensure that “individuals with disabilities can readily access and utilize the wide array of connected consumer technologies.” CTA Comments at 13.

³⁰ See, e.g., DHH CAO Comments at 2 (“The COVID-19 pandemic exacerbated many shortcomings regarding the accessibility of critical communications and various platforms for the deaf, hard of hearing, speech impaired persons, deafblind, and deaf people with other disabilities.”).

hearing, or have speech disabilities to make voice calls and in smart home devices that include voice and text messaging capabilities.³¹

11. For example, commenters highlight new features that enable people with mobility disabilities to control wireless devices.³² CTIA reports that Android and Samsung phones enable users to make gestures with their faces to control their phones.³³ The phones include a feature that “allows a user to assign a facial gesture (e.g., Open Mouth, Smile, Raise Eyebrows, Look Left, Look Right and Look Up) to specific actions the user wants to take.”³⁴ Samsung devices provide air gestures so that users can control their devices without touching their respective screens.³⁵ One new app enables people to type with their eyes.³⁶

12. Organizations for people who are blind or visually impaired also identify certain improvements in the accessibility of screen readers, braille displays, haptic feedback, and audible cues. AFB states that the Android screen reader TalkBack Version 9.1 introduced gestures and commands that make the interface easier to use for people who are blind and people who have cognitive or mobility disabilities.³⁷ However, AFB states that not all braille users can benefit from all of these screen reader improvements.³⁸ Commenters also raised the need to incorporate improved accessibility features into a broader range of mobile devices. While identifying a large number of accessibility features in its research,³⁹ CACP states that increasing the availability of models of phones that include braille, haptic feedback features, and audible cues would benefit more people who are blind or visually impaired.⁴⁰ AFB states that including tactile buttons and text to speech in two feature phones⁴¹ make these phones

³¹ CTIA Comments at 13 n.37 (citing *Translate Speech to Text with Live Caption*, Google (last visited Mar. 17, 2022), <https://support.google.com/accessibility/android/answer/9350862?hl=en>; *id.* at 15 (citing *Use HomePod Mini or HomePod as An Intercom*, Apple (Nov. 9, 2021), <https://support.apple.com/en-us/HT206149>).

³² CTA Tentative Findings Comments at 1 (noting continued interface improvements for people with mobility disabilities).

³³ CTIA Comments at 14 n.38 (citing Barbara Krasnoff, *How Android 12 Lets You Control Your Phone with Facial Gestures*, The Verge (Feb. 25, 2022), <https://www.theverge.com/22649045/android-12-facial-gestures-accessibility-how-to>; *Use Camera Switches*, Google (last visited Mar. 17, 2022), <https://support.google.com/accessibility/android/answer/11150722?hl=en>). AFB states that Talkback Version 9.1 was also released with a gesture learning mode and updated tutorial to help users adapt. AFB Comments at 2.

³⁴ CTIA Comments at 14.

³⁵ *Id.* at 14.

³⁶ Look to Speak allows a user to select pre-written phrases using their eyes. CTIA Comments at 16 n.49 (citing Richard Cave, *Look to Speak Helps People Communicate with Their Eyes*, The Keyword (Dec. 8, 2022), <https://blog.google/outreach-initiatives/accessibility/look-to-speak/>).

³⁷ AFB Comments at 2 (citing JJ. Meddaugh, *A New Day for TalkBack: Android Screen Reader Gets a Major Update*, AccessWorld (May 2021), <https://afb.org/aw/22/5/17556>); *see id.* at 2 (expressing hope that future collaboration between Google and Samsung might produce even higher quality screen readers).

³⁸ AFB Comments at 2 (stating that BrailleBack, an app that supports reading and writing from a braille display, does not support all of TalkBack’s new features).

³⁹ CACP Comments at 5-10; CAC Tentative Findings Comments.

⁴⁰ CACP Comments at 5-6 (“[i]ncreasing the presence of the Audible Cue, Braille Display Support, and Haptic Feedback features to be available in more than 50% of phones provided would improve the odds of an individual with vision disabilities finding and purchasing a phone with the appropriate suite of accessibility features for their needs and enjoyment”).

⁴¹ “Feature phones are used with wireless services and include (1) phones used primarily or exclusively for voice communications and (2) phones used for voice communications and text messaging, with little or no computing

(continued....)

good options for people who are blind or visually impaired.⁴² Overall, ACB urges the Commission to continue its focus on the accessibility of wireless devices at all feature levels and price points.⁴³

13. Commenters also reported on apps that have been released over the last two years that are designed to assist people with multiple disabilities. Google deployed Live Caption on certain phones, a new accessibility app for telecommunications, interconnected VoIP, and non-interconnected VoIP services that allows people who are deaf, hard of hearing, or have speech disabilities to make voice calls.⁴⁴ When Live Caption is used for voice calls, “[y]ou get captions of what the other person says, and you can type in responses in real time. Your messages are read aloud by the system.”⁴⁵ The app can also automatically add captions to any video, podcast, or audio message on an Android phone, and can do so without the need for an Internet connection.⁴⁶

14. Commenters also discussed smart home devices. CTIA highlights the communications features of an Apple HomePod app that lets customers send and receive messages from one HomePod to another, or with an iPhone, iPad, iPod touch, Apple Watch, or CarPlay.⁴⁷ CTIA states that the Apple HomePod’s intercom can capture voice messages and transfer them to text, which makes them accessible to people who are deaf or hard of hearing.⁴⁸ Regarding the home internet of things (IoT), DHH CAO points out that the ability to control smart home devices by voice is not accessible to people who are deaf, hard of hearing, or deafblind due to a lack of accessible interfaces on some devices.⁴⁹ ACB states that certain smart devices, like video-capable doorbells and smart home appliances, “lack built-in out-of-the-box accessibility native to their own hardware” and that consumers must rely on accessible smartphones for quick set-up and use.⁵⁰ ACB and DHH CAO contend that accessibility should be natively built into smart home devices.⁵¹

capabilities.” 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*, Biennial Report to Congress as Required by the Twenty-First Century Communications and Video Accessibility Act of 2010, 35 FCC Rcd 11227, 11234 para. 16 (2020) (*2020 CVAA Biennial Report*).

⁴² AFB Comments at 2 (noting that some prefer navigating phones with tactile inputs); see id. (discussing the BlindShell Classic Lite and RAZ Mobility MiniVision2) (citations omitted).

⁴³ ACB Comments at 2.

⁴⁴ CTIA Comments at 13 n. 37 (citing *Translate Speech to Text with Live Caption*, Google (last visited Mar. 17, 2022), <https://support.google.com/accessibility/android/answer/9350862?hl=en>).

⁴⁵ The ability to type responses is currently available on Pixel 6 and Pixel 6 Pro only. See *Type Responses During A Phone Call*, Google, (last visited May 2, 2022), https://support.google.com/accessibility/android/answer/9350862#type_responses_during_call.

⁴⁶ CTIA Comments at 13.

⁴⁷ *Id.* at 15 (citing *Use HomePod Mini or HomePod as An Intercom*, Apple (Nov. 9, 2021), <https://support.apple.com/en-us/HT206149>).

⁴⁸ CTIA Comments at 15.

⁴⁹ DHH CAO Comments at 8 (stating that some smart devices do not always have a screen interface, text interface, or braille reader interface for people who are deaf, hard of hearing, or deafblind).

⁵⁰ ACB Comments at 2 (“Many smart speakers and smart home appliances, like thermostats, video-capable doorbells, and home appliances allow for quick set-up and control using a smartphone or Internet-connected mobile device. However, these products lack built-in out-of-the-box accessibility native to their own hardware, and instead, rely on the accessibility suite of a consumer’s mobile device.”); see DHH CAO Comments at 8.

⁵¹ ACB Comments at 2; DHH CAO Comments at 8. HBDE surveyed 36 individuals on a range of accessibility questions and found that 64% of survey respondents do not use smart home digital assistants. HBDE Comments at

(continued....)

15. One commenter – CACP – examined overall accessibility features of mobile phones. To examine how accessible mobile devices affect daily activities,⁵² CACP surveyed 153 mobile phones and identified 54 features that provide accessibility to people with vision, hearing, cognitive and mobility disabilities.⁵³ While finding that very few phones contained more than a small fraction of these features, CACP found that the increased number of features for each phone indicated that accessibility has improved for each group over the past two years.⁵⁴ Smartphones outpaced non-smartphones in the percentage of accessibility features.⁵⁵ Similarly, CACP found that phones provided by Lifeline providers have increased numbers of accessibility features since two years ago.⁵⁶

B. Usability

16. Sections 255, 716 and 718 also require that covered services and equipment are “usable” by people with disabilities.⁵⁷ A product or service is “usable” if companies provide people with disabilities with information on how to use services, such as documentation for the product or service, including instructions, product or service information (including accessible feature information), customer support, and technical support.⁵⁸ We find that while usability has improved for some covered services and equipment, there is still room for improvement.

17. CTA and CTIA state that the past two years have shown continued improvements in accessibility documentation and customer support for covered services and equipment. On the other hand, ACB notes that some company resources lack information on ACS accessibility features, and DHH CAO notes the smart home appliances instructions are sometimes conveyed through uncaptioned videos.⁵⁹

18. CTIA notes that wireless service providers and manufacturers continue to maintain online and in-store accessibility customer service and technical support.⁶⁰ They continue to provide information and documentation on accessibility features, including in user guides, bills, installation guides, and on their websites.⁶¹ They also provide education through conferences, events, outreach programs, and accessibility help desks.⁶² CACP states, however, that more than 30% of the phones in its sample either

3 (“Majority of survey respondents (64%) do not use digital assistants such as Amazon Echo, Amazon Alexa, Facebook Portal or Google Home.”).

⁵² CACP Tentative Findings Comments at 32.

⁵³ *Id.* at 4; 8, Table 1 (listing 54 accessibility features).

⁵⁴ *Id.* at 14-21.

⁵⁵ *Id.* at 29-30.

⁵⁶ *Id.* at 23 (“Despite Tier 1 phone models slightly outpacing Lifeline-provided models on the presence of accessibility features, there is a more encouraging outcome that shows devices obtained from Lifeline providers have improved accessibility levels compared to 2019-2020 data.”).

⁵⁷ 47 U.S.C. §§ 255, 617, 619.

⁵⁸ *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).

⁵⁹ DHH CAO Comments at 8.

⁶⁰ CTIA Comments at 29 (stating that the wireless industry focuses on implementing “internal policies that help foster a culture of diversity and inclusion that also helps drive advancements in wireless accessibility”).

⁶¹ CTIA Comments at 29.

⁶² CTA Comments at 2; CTIA Comments at 29. CTA and CES showcase current innovations in accessibility technology. CTA Comments at 5 n.23 (citing Debra Berlyn, *What’s New in 2022 for Aging and Tech?*, Broadband Breakfast (Jan. 24, 2022), <https://broadbandbreakfast.com/2022/01/debra-berlyn-whats-new-in-2022-for-aging-and-tech/>).

did not have readily accessible user manuals online or, for manuals that were available, contained insufficient or missing feature information.⁶³

19. CTIA also states that people with disabilities may learn about their wireless options from the Mobile Wireless Forum Global Accessibility Reporting Initiative (GARI) database that CTIA maintains on its website – AccessWireless.org.⁶⁴ GARI’s database is organized by category, providing a resource for people with hearing, vision, mobility and manipulation, speech, and cognitive disabilities, as well as for seniors and veterans.⁶⁵ ACB contends, however, that the GARI tool does not identify which phones provide ACS in an accessible manner, and that some information is not updated comprehensively, like the list of smartwatches.⁶⁶ ACB also states that some companies may not be reachable because they have not registered their contact information in the FCC’s Recordkeeping Compliance Certification and Contact Information Registry (RCCCI).⁶⁷

C. Inclusion of People with Disabilities in Design and Development

20. We find that covered entities have continued to include people with disabilities in product and service design and development. CTA and CTIA explain that industry has engaged consumers in product development and testing,⁶⁸ advisory groups,⁶⁹ conferences,⁷⁰ and product demonstrations.⁷¹

⁶³ CACP Tentative Findings Comments at 35.

⁶⁴ CTIA Comments at 28 (stating that the GARI tool allows users to search and compare devices and apps).

⁶⁵ CTIA Comments at 28.

⁶⁶ ACB Comments at 3.

⁶⁷ ACB Comments at 3 (stating that some companies are not filing required annual certifications in the FCC’s Recordkeeping Compliance Certification and Contact Information Registry “RCCCI database”). The purpose of the registry is to “enable entities that are required to comply with Sections 255, 716, 717, and 718 of the Communications Act and the Commission’s rules implementing those sections to submit their . . . contact information.” See Recordkeeping Compliance Certification and Contact Information Registry, <https://apps.fcc.gov/rccci-registry/login!input.action>.

⁶⁸ CTIA Comments at 4 (stating that industry incorporates accessibility into the fundamental design of their products and seeks input from the disability community at all stages of development, including market research, testing and trials, and deployment).

⁶⁹ CTIA and CTA play principal roles in the joint hearing aid compatibility task force (HAC Task Force), the FCC’s Disability Advisory Committee (DAC), and Consumer Advisory Committee (CAC). CTA Comments at 7; CTIA Comments at 23. CTIA is also a member of the North American Numbering Council (NANC) Interoperable Video Calling Working Group. CTIA Comments at 23. CTIA members also maintain direct contact with the accessibility community through their design and development activities. CTIA Comments at 23.

⁷⁰ At CES, CTA sponsors a group of Accessibility Leaders to learn about and provide feedback on showcased new technologies. CTA Comments at 8 n.22 (citing ACB Advocacy Update, *Accessible Tech at the Consumer Electronics Show* (Jan. 21, 2022), citing <https://acb-advocacy-update.pinecast.co/episode/9577ab33/accessible-tech-at-the-consumer-electronics-show>). CTA states that it will continue to leverage roundtables and other opportunities for dialogue and collaboration between the consumer technology industry and people with disabilities. CTA Tentative Findings Comments at 2.

⁷¹ CTA states that its committees and members are working on hearing-aid standards, audio interfaces for consumer electronics, and intelligent mobility for people who are deaf, hard of hearing and deafblind. CTA Comments at 6-7 (citing *Status of Active Consumer Technology Association Projects, CTA-2051-A: Personal Sound Amplification Performance Criteria*, Consumer Technology Association (last visited May 2, 2022), https://standards.cta.tech/kwspub/current_projects/; *Status of Active Consumer Technology Association Projects, CTA-CEB27-A: Recommended Practice for Audio Accessibility of Audiovisual Devices*, Consumer Technology Association (last visited Mar. 29, 2022), https://standards.cta.tech/kwspub/current_projects/; *Status of Active Consumer Technology Association Projects, ANSI/CTA-2076.2: Indoor Network Navigation Systems for People who*

(continued....)

IV. ACCESSIBILITY BARRIERS TO NEW COMMUNICATIONS TECHNOLOGIES

21. The COVID-19 pandemic has highlighted the importance of accessible video conferencing services for people with disabilities.⁷² Consumer and industry comments focus primarily on these issues, which have become increasingly important since the Commission issued its last CVAA Report. While the Commission is considering the legal status of types of video conferencing services in a pending proceeding,⁷³ we provide an overview of consumer and industry comments describing experiences with video conferencing services during the pandemic.⁷⁴ The comments show that video conferencing providers have introduced accessibility innovations over the past two years, but we find that commenters have identified several accessibility issues for further exploration.

22. CTA and CTIA report that video conferencing services like Zoom, BlueJeans, FaceTime, and Microsoft Teams have introduced a variety of accessibility feature enhancements, including screen reader support, customizable chat features, a choice of a third-party live captioning or synchronous automatic captioning, multi-pinning features and “spotlighting” a sign-language interpreter or speaker so that all participants know who is speaking.⁷⁵ CTIA states that some services have settings that will automatically highlight and identify the person speaking or using ASL;⁷⁶ in other words, these new

are Deaf, Hard of Hearing and DeafBlind, Consumer Technology Association (last visited May 2, 2022), https://standards.cta.tech/kwspub/current_projects).

⁷² See, e.g., CTA Tentative Findings Comments at 1-2; NFB Tentative Findings Comments at 1-2; DHH CAO Comments at 8-11; ACB Comments at 1-2. Commenters also raise concerns about the lack of equal access to 911 emergency services when using TTY and VRS to contact appropriate emergency service centers. See DHH CAO Comments at 4-5.

⁷³ ACB urges the Commission to define interoperable video communications services to be a covered advanced communications service. ACB Comments at 2-3. We note that this question is the subject of a pending rulemaking. See *Consumer and Governmental Affairs Bureau Seeks to Refresh the Record on Interoperable Video Conferencing Services*, CG Docket No. 10-213, Public Notice, DA 22-463 (Apr. 27, 2022), <https://www.fcc.gov/document/pn-refresh-record-re-interoperable-video-conferencing>.

⁷⁴ AFB Comments at 3-5 (accessibility impacted remote student learning due to inadequate resources for children and teachers); AFB Comments at 3 (stating that inaccessible access to a service’s chat feature impeded the ability of people who are blind or visually impaired to communicate privately with their healthcare providers); CTA Comments at 2-3 (“In 2021, roughly 80 percent of technology industry leaders strongly agreed that employees benefited from this hybrid work environment.”) (citing Consumer Technology Association Member Survey, *Future of Work: 2021*, at 8 (Oct. 2021), https://shop.cta.tech/collections/research/products/future-of-work-2021-cta-member-survey?_ga=2.61850028.1006895257.1647959185-462461571.1643999452); CTA Tentative Findings Comments at 2 (stating that industry has worked on connected devices over the past two years); DHH CAO Comments at 2 (“Video conferencing platforms have become a major tool during the pandemic due to the shift to working from home, but these platforms also are plagued by ineffective captions.”).

⁷⁵ CTIA Comments at 16 (citing *Zoom is bringing automatic closed captions to all free accounts*, CNET (Feb. 25, 2021), <https://www.cnet.com/tech/services-and-software/zoom-is-bringing-automatic-closed-captions-to-all-free-accounts>; Abrar Al-Heeti, *Android updates TalkBack screen reader with new voice commands, language options*, CNET (Feb. 23, 2021), <https://www.cnet.com/tech/tech-industry/android-updates-talkback-screen-reader-with-new-voice-commands-language-options>); CTA Comments at 4 (“Americans have come to rely on innovative technology for their everyday lives. From remote video conferencing to telehealth, we have embraced technology like never before. The next generation of innovation can also help prepare communities for the next public health emergency.”).

⁷⁶ CTIA Comments at 16.

accessibility features can detect when a person is using sign language.⁷⁷ CTA states that service users also have access to customizable interfaces and multiple input options.⁷⁸

23. Commenters point out some of the challenges of using automatic captioning available on certain video conferencing platforms. DHH CAO states that automatic captioning sometimes produces incomplete or delayed transcriptions,⁷⁹ and that even if slight delays of live captions cannot be avoided, these captioning delays may cause “cognitive overload.”⁸⁰ Comprehension can be further hindered, according to DHH CAO, if a person who is deaf or hard of hearing cannot see the faces of speaking participants, for “people with hearing loss rely more on nonverbal information than their peers, and if a person misses a visual cue, they may fall behind in the conversation.”⁸¹

24. AFB and NFB agree that video conferencing services are generally accessible to people who are blind or visually impaired, but there are some accessibility concerns.⁸² AFB states that the chat feature of some video conferencing services is not accessible.⁸³ In addition, AFB and NFB report that, during video conferences, people who are blind or visually impaired do not have access to “shared screens” because those screens are rendered as images that are not accessible to screen reader users.⁸⁴ NFB notes, however, that the Microsoft Teams video conferencing service supports accessible PowerPoint sharing because that service formats shared slides in a way that screen readers can process.⁸⁵ AFB also states that some user interfaces are not accessible.⁸⁶ People who are blind or visually impaired sometimes have difficulty toggling sound and mute features on and off, and do not have access to verbosity settings that allow users to control when notifications are voiced.⁸⁷ Commenters also note

⁷⁷ CTIA Comments at 13 (“When a participant speaks (verbally or by using sign language) or you tap [their] tile, that tile moves to the front and becomes more prominent.”) (citing *Make a Group FaceTime Call on iPhone*, Apple (last visited Mar. 17, 2022), <https://support.apple.com/en-za/guide/iphone/iph405ab67de/14.0/ios/14.0>).

⁷⁸ CTA Comments at 3.

⁷⁹ DHH CAO Comments at 9-10.

⁸⁰ *Id.* at 10 (citing Christina Claus, *How to Mitigate Accessibility & Digital Inclusion Obstacles for the Deaf Community*, Inclusion Hub (Mar. 29, 2022), <https://www.inclusionhub.com/articles/mitigate-obstacles-for-deaf-community>).

⁸¹ DHH CAO Comments at 9 n.21 (Mark Ray, *Why Remote Work Can Be Hard For Hard-Of-Hearing People*, Forbes (Mar. 29, 2022), <https://www.forbes.com/sites/nextavenue/2021/09/02/why-remote-work-can-be-hard-for-hard-of-hearing-people/?sh=76a3d4c46d71>).

⁸² AFB Comments at 3, NFB Tentative Findings Comments at 2.

⁸³ AFB Comments at 3, 5 (stating that WebEx’s chat feature was difficult or impossible to use and that, in Teams, screen readers cannot find the last chat message in the chat screen); see *id.* (stating that many screen readers cannot use the desktop version of Slack); NFB Tentative Findings Comments at 2; Letter from Everette Bacon, Secretary, NFB, to Marlene H. Dortch, Secretary, FCC, CG Docket No. 213 (filed Aug. 19, 2022) (NFB Ex Parte) (noting challenges for screen readers and GoTo Meeting). For screen readers users, text chat is read aloud, which competes for the user’s attention when they are also listening to voice conversations taking place at the same time. NFB Ex Parte at 1.

⁸⁴ AFB Comments at 3.

⁸⁵ NFB Tentative Findings Comments at 2; NFB Ex Parte at 1. NFB notes that a third party app, called Scribe for Meetings, converts inaccessible shared screens into accessible formats for screen readers. NFB Ex Parte at 1.

⁸⁶ AFB Comments at 3, 5.

⁸⁷ *Id.* at 3. The verbosity setting affects the amount of spoken feedback that the application will provide when using the program. See, e.g., Apple, *Change your VoiceOver settings on iPhone*, <https://support.apple.com/guide/iphone/iphfa3d32c50> (last visited May 6, 2022).

difficulties with enlarging content or viewing two windows at once.⁸⁸ AFB states that these accessibility barriers have caused problems in the classroom and at work.⁸⁹ AFB identifies additional problems, including low internet bandwidth, inadequate resources, and poor collaboration technologies for children and teachers, which have negatively impacted remote learning for children with disabilities.⁹⁰

25. DHH CAO reports that poor video quality can make video conferences inaccessible to people who are deaf or hard of hearing.⁹¹ According to DHH CAO, once the country moved to remote working, many who are deaf or hard of hearing found themselves initially cut off from colleagues during calls on virtual platforms.⁹² In response to suggestions that frozen screens and system crashes could be navigated in audio-only mode, “this workaround does not adequately serve people who are deaf and hard of hearing.”⁹³ On a related note regarding connectivity for videoconferencing purposes, CTIA states that its members realized that people with disabilities often rely more heavily on the internet for their communications needs, and that they are responding with more bandwidth at no additional costs.⁹⁴ CTIA also recognizes that because people with disabilities are more at risk of being unemployed or having low income, greater bandwidth can make a dramatic difference.⁹⁵

26. Access to telehealth was also discussed by commentors, who described many of the difficulties they faced. For example, AFB and DHH CAO state that large numbers of people with disabilities face challenges accessing telehealth, and CTA states that companies are taking responsive actions.⁹⁶ AFB cites to a survey of 330 people who are blind or visually impaired, where approximately

⁸⁸ *Id.* at 3.

⁸⁹ *Id.* at 3-4 (noting that work collaboration tools include video conferencing, voice calls, and chat).

⁹⁰ *Id.* at 4.

⁹¹ DHH CAO Comments at 3 n.35 (stating that poor video quality can “absolutely produce delays for American Sign Language communicators”) (citing *Making Telehealth Equitable for Deaf and Hard of Hearing Communities*, University of Kentucky College of Health Sciences (Mar. 29, 2022), <https://www.uky.edu/chs/about/news/making-telehealth-equitable-for-deaf-and-hard-hearing-communities>); *see id.* at 3 (noting that a “screen could end up blurry and impossible for the other person to translate”).

⁹² DHH CAO Comments at 8-9 (pointing to Zoom and Microsoft Teams as examples).

⁹³ *Id.* at 10 n.3 (citing Michele Hurley, Au.D., Video conferencing tips for people with hearing loss, Starkey, (Mar. 29, 2022), <https://www.starkey.com/blog/articles/2020/04/22/13/19/videoconferencing-with-hearing-loss#:~:text=When%20using%20video%20conferencing%20tools,garbled%20mess%20for%20t%20he%20listener>).

⁹⁴ CTIA Comments at 9-10 (stating that “providers including Carolina West, Union Wireless, Cellular One, and Consumer Cellular offered more data at no cost to the consumer”).

⁹⁵ *Id.* at 10 n.25 (citing *Disability Employment Statistics*, U.S. Dept of Labor (Mar. 30, 2022), <https://www.dol.gov/agencies/odep/research-evaluation/statistics>) (comparing the unemployment rate for people without disabilities – 4.0 percent – with the unemployment rate for people with disabilities – 9.7 percent)); *Median Household Income of People with and without Disabilities with Earnings, Age 21 to 64*, ADA Participatory Action Consortium (2016), https://www.centerondisability.org/ada_parcs/utills/indicators.php?id=32 (comparing the median household income of people without disabilities – \$68,700 – with the median household income of people with disabilities – \$43,300).

⁹⁶ AFB Comments at 2 (Rhoads, C.R., Bleach, K., Chatfield, S. & Camarilla, P.M. (2022). *The Journey Forward: Impact of COVID-19 on Blind, Low Vision, and Deafblind U.S. Adults* [Unpublished manuscript]. American Foundation for the Blind. Report to be published at <https://www.afb.org/research-and-initiatives/flatten-inaccessibility-survey/journey-forward>); DHH CAO Comments at 2 (stating that “[t]elehealth services, which have become crucial during the pandemic, remain inadequate, as platforms often lack interpreters or captions”); CTA Comments at 6 n.26.

57% reported that they found telehealth to be inaccessible in some way.⁹⁷ Some people could not use their screen readers, login to a telehealth platform independently, navigate to make an appointment, read text information or text chat, or communicate privately with their healthcare providers.⁹⁸

27. Regarding telehealth accessibility, DHH CAO reports that people who are deaf or hard of hearing face major obstacles to virtual healthcare visits if accessibility solutions are unavailable.⁹⁹ DHH CAO states that people who are deaf or hard of hearing must call their healthcare providers on a separate, segregated platform using video relay services (VRS) if the telehealth program fails to provide interpreters.¹⁰⁰ In a 2020-2021 telehealth accessibility survey of people who are deaf or hard of hearing, two-thirds of the respondents reported communications challenges.¹⁰¹

28. In response to telehealth needs, CTA states that it is launching a new telehealth working group to develop best practices and recommendations for telehealth solutions, including solutions that address digital literacy, equity and access issues.¹⁰²

V. COMPLAINTS RECEIVED PURSUANT TO SECTION 717

29. Under Section 717, a person may file a formal or informal complaint alleging a violation of section 255, 716, or 718 for a determination whether any violation occurred.¹⁰³ Before a consumer may file an informal complaint, the consumer must first submit a request for dispute assistance (RDA) to the Commission's Disability Rights Office (DRO) for help in resolving the accessibility problem between the consumer and the covered entity.¹⁰⁴ If the consumer and the covered entity do not reach a settlement within 30 days after an RDA is filed, the parties may agree to extend the time for resolution in 30-day

⁹⁷ AFB Comments at 2-3 (citing Rhoads, C.R., Bleach, K., Chatfield, S. & Camarilla, P.M., *The Journey Forward: Impact of COVID-19 on Blind, Low Vision, and Deafblind U.S. Adults* (2022) [Unpublished manuscript], Report to be published at <https://www.afb.org/research-and-initiatives/flatten-inaccessibility-survey/journey-forward>).

⁹⁸ *See id.* In a Flatten Inaccessibility study, AFB states that, of 285 blind and low vision participants who had used telehealth to meet with their healthcare provider, 21% reported the telehealth platform was not accessible with their respective assistive technologies. *See id.* at 2 (citing Rosenblum, L. P., Chanes-Mora, P., McBride, C. R., Flewellen, J., Nagarajan, N., Nave Stawaz, R., & Swenor, B, *Flatten Inaccessibility: Impact of COVID-19 on Adults Who Are Blind or Have Low Vision in the United States* (2020), www.afb.org/FlattenInaccessibility).

⁹⁹ DHH CAO Comments at 12 n. 37 (citing *Speech Reading*, Centers for Disease Control and Prevention (Mar. 29, 2022), (<https://www.cdc.gov/ncbddd/hearingloss/parentsguide/building/speech-reading.html#:~:text=About%2040%25%20of%20the%20sounds,for%20yourself%20in%20a%20mirror>)).

¹⁰⁰ DHH CAO Comments at 11.

¹⁰¹ *See id.* at 11 n.32 (citing Ashley Mussallem, Tiffany L Panko, *Making virtual health care accessible to the deaf community: Findings from the telehealth survey*, Sage Journals: Journal of Telemedicine and Telecare, (Mar. 29, 202), <https://journals.sagepub.com/doi/10.1177/1357633X221074863>).

¹⁰² CTA Comments at 6 n.36. The group will leverage CTA's Guiding Principles on Virtual Care for consumer engagement, standard of care, quality, continuity of care, prescribing and data management. *Id.* at 6 (Consumer Technology Association, *Guiding Principles on Virtual Care* (Mar. 2020), https://shop.cta.tech/products/guiding-principles-on-virtual-care?_ga=2.253839560.1365709638.1644164805-574097665.1584113335).

¹⁰³ 47 USC § 618(a)(3)(A) ("Any person alleging a violation of section 255, 617, or 619 of this title by a manufacturer of equipment or provider of service subject to such sections may file a formal or informal complaint with the Commission."); *see also* 47 USC § 618(a)(3)(B) (requiring the Commission to investigate informal complaints and determine if a violation occurred).

¹⁰⁴ *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). A consumer also may file a formal complaint with the Enforcement Bureau without first submitting an RDA or an informal complaint. 47 CFR §§ 14.38-14.52.

increments, or the consumer may then, pursuant to Section 717, file an informal complaint with the Enforcement Bureau.¹⁰⁵

30. The Commission must forward the informal complaint to the named service provider or equipment manufacturer.¹⁰⁶ The service provider or manufacturer then must 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.¹⁰⁷ Within 180 days after receipt of the complaint, the Commission must conclude an investigation into the merits of the complaint and issue an order determining whether a violation has occurred.¹⁰⁸ 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.¹⁰⁹

A. Number and Nature of Complaints Received

31. From January 1, 2020, to December 31, 2021, consumers filed 49 RDAs alleging violations of section 255, 716, or 718.¹¹⁰ Eight RDAs were filed against Lifeline providers. DRO resolved 47 RDAs through facilitated dialogue and negotiation. Because their RDAs were not resolved, two consumers exercised their right to file informal complaints.

B. Discussion of RDAs

32. In their RDAs, some consumers stated that their devices and services were inaccessible. Other consumers claimed accessibility barriers to reaching customer service or that customer service was unable to help them locate accessible devices or to fix accessibility problems. These RDAs were brought by people with a wide range of disabilities. Some RDAs helped individuals with specific accessibility problems. Others required systemic fixes. These RDAs required companies to rewrite smartphone apps, create app features, produce new device interfaces, alter equipment, develop new websites, and implement company-wide training.

33. While most RDAs sought assistance for accessible phones, each RDA involved a unique individual with specific accessibility concerns. For instance, five people with mobility disabilities sought

¹⁰⁵ 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).

¹⁰⁶ 47 CFR § 14.35(a).

¹⁰⁷ 47 CFR § 14.36(b)-(c). The complainant may then file a reply. 47 CFR § 14.36(d).

¹⁰⁸ 47 U.S.C. § 618(a)(3)(B), (a)(4); *see also* 47 CFR § 14.37(a).

¹⁰⁹ 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).

¹¹⁰ We note that while consumers filed an additional 295 requests for dispute assistance during this period, DRO determined that these requests were not eligible for the RDA process because they did not allege violations of section 255, 716, or 718 of the Act. These requests are therefore not counted or discussed in this Report. DRO treats such complaints as informal complaints for further DRO processing (if they are related to accessibility) or refers them to the FCC's Consumer Inquiries and Complaints Division for processing (if they are unrelated to accessibility). For requests alleging violations of statutes outside of the Commission's jurisdiction, DRO provides these complaints to the relevant federal agencies (such as the U.S. Department of Justice for complaints alleging violations of the Americans with Disabilities Act).

accessible phones. One person, who is unable to use his voice or limbs, was able to use a visual keyboard to send text messages; however, he was unable to login independently because authentication required him to hold a device. One person with a motor skills disability stated that she needed a phone that did not exceed a specific weight, could be held with one hand, and had large, raised tactile keys. One person stated that she needed a phone that had flat sides instead of curved sides. One person stated that he needed a one-handed onscreen Dvorak keyboard.¹¹¹ Four people with cognitive disabilities sought accessible phones. One person stated that he needed help with voicemail that was read too quickly. Two people needed assistance finding accessible 4G and 5G phones to replace their accessible 3G phones that would no longer operate once their carriers shut down their 3G networks. Eleven people who are blind or visually impaired had difficulty finding accessible feature phones. People who are deaf or hard of hearing stated that they did not have access to visual voicemail.

34. Some RDA filers were unable to interact with their device or app. People who are blind or visually impaired stated that three websites and six text messaging apps were not readable by screen readers or braille readers. One person who is deafblind was unable to pair his braille reader with a text messaging device. These problems prevented some filers from communicating and from paying bills or purchasing services online.

35. Other filers did not have accessible ways to set up their devices or use phone features. People who are blind stated that they were not independently able to activate their phones because the SIM card numbers were not provided in an accessible format. A total of four people was unable to replace their phones' SIM cards. People who are blind or visually impaired requested free access to 411 and stated that they were unable to obtain their bills in accessible formats (large print or in braille).

36. Some RDAs arose from situations where consumers stated that they were unable to obtain accessible customer service. One person with dementia stated that his carrier's phone tree was not accessible. A caregiver for one person with a mobility disability stated that a salesperson used derogatory language about her client and would not sell him a phone because of his disability. One person who is deaf stated that, in one store, the salespeople would not provide her with a pen and paper so that she could communicate. A woman with cochlear implants stated that she was unable to get her phone unlocked and to locate appropriate consumer service support because of her disability. Two people with cognitive disabilities stated that they needed access to customer service representatives who could explain how they could use their phones' accessibility features.

C. Actions Taken to Resolve RDAs

37. DRO helped consumers and manufacturers and service providers resolve RDAs filed during the period covered by this Report. Entities responding to the RDAs resolved consumers' accessibility concerns by taking the following actions: committing to enable people who are blind to independently activate their phones; enabling pairing between braille readers and texting devices; creating a customer service mailbox for a person with ALS; locating accessible phones for people with mobility disabilities; rewriting one website and making two other websites natively accessible to screen readers; rewriting six telecommunications and advanced communications apps, including one app that was accessible to a screen reader but not to a braille reader; providing visual voicemail; connecting two consumers with cognitive disabilities to customer service representatives trained in accessibility; training in-store salespeople to provide service to people with disabilities; and creating a customer service phone tree and committing to create an accessible voicemail system.

¹¹¹ Randy Cassingham, *The Dvorak Keyboard: the Basics* (12 Sept. 12, 2020), <https://dvorak-keyboard.com/> (“The Dvorak keyboard is an ergonomic alternative to the layout commonly found on typewriters and computers known as ‘Qwerty’”).

D. Actions Taken to Resolve Informal Complaints

38. Two RDAs did not reach resolutions. In the first instance, the consumer alleged that his interconnected VoIP provider, ViaTalk, refused to provide telephone assistance to necessary to help him reconnect his new company-provided modem. After he was unable to reach a resolution with the company on his allegations, he filed an informal complaint with the Commission's Enforcement Bureau (EB). On August 18, 2021, the Commission found that ViaTalk did not fulfill its obligation to ensure that people with disabilities have access to product support information that ViaTalk provides to its customers in general, as required by section 6.11(a) of the Commission's rules, and that providing such access was readily achievable.¹¹² Specifically, ViaTalk failed to honor a customer's request for a customer service agent to call the customer back concerning product support, which is an option available to other customers. At the same time, the EB released a citation order notifying ViaTalk that it failed to ensure that individuals with disabilities had access to information provided to other customers and failed to file annual compliance certifications with the Commission. Moreover, ViaTalk was ordered to cease and desist from failing to provide access to information provided to other customers and from failing to file annual compliance certifications with the Commission, in violation of section 255 of the Act and section 6.11(a) and 14.31(b) of the Commission's rules.¹¹³

39. EB also ordered ViaTalk to contact the customer within 14 days to schedule a day and time for a phone call to provide the customer with guidance on restoring his interconnected VoIP service.¹¹⁴ EB also directed ViaTalk to establish processes to ensure that (1) complaints by individuals with disabilities are referred promptly to a ViaTalk representative authorized to resolve the matter and (2) ViaTalk documents its efforts to resolve such complaints and that such documents be retained for 24 months.¹¹⁵

40. With regard to the second unresolved RDA, a consumer who is hard of hearing alleged that his telecommunications service provider, Verizon, failed to ensure that its voicemail service was accessible to him, in violation of section 255 of the Act and part 7 of the rules.¹¹⁶ After he was unable to reach a resolution with the company on his allegations, he filed an informal complaint with EB. On June 9, 2022, the Commission found that Verizon did not meet its burden of proof and thus did not establish that its Premium Visual Voicemail service is accessible or that accessibility is not readily achievable, and granted the consumer's complaint.¹¹⁷ The Commission deferred issuing a proposed remedy to a subsequent order.¹¹⁸ Subsequently, on July 8, 2022, EB issued a Notice of Apparent Liability proposing a \$100,000 forfeiture against Verizon for apparently failing to provide EB with the information that was

¹¹² *ViaTalk, LLC Informal Complaint Regarding Access to Telecommunications Services*, Order, FCC No. 21-96, 36 FCC Rcd 12968 (rel. Aug. 18, 2021) (on file in EB-TCD-21-0032021) (*ViaTalk EB Order*).

¹¹³ *ViaTalk EB Citation and Order*, Failure to Ensure Access to Information; Failure to File Annual Compliance Certifications, DA 21-1010, 36 FCC Rcd 12634, para. 16 (rel. Aug. 18, 2021) (on file in EB-TCD-21-00032632) (*ViaTalk EB Citation and Order*).

¹¹⁴ *ViaTalk, LLC Informal Complaint Regarding Access to Telecommunications Services*, File No. EB-TCD-21-00032021, Order, DA No. 21-1478 (EB Nov. 29, 2021) (*ViaTalk EB Remedy Order*).

¹¹⁵ *ViaTalk EB Remedy Order* at 1-2, para. 3.

¹¹⁶ *Cellco Partnership D/B/A Verizon Wireless Informal Complaint Regarding Access to Telecommunications Services*, File No. EB-TCD-21-00033100, Order, DA No. 22-622 at 3-4, paras. 7-8 (EB June 9, 2022) (*Verizon EB Order*).

¹¹⁷ *Verizon EB Order* at 1, para. 2.

¹¹⁸ *Id.* at 7, para. 20.

needed to determine whether its Premium Visual Voicemail was accessible.¹¹⁹

E. Time Used to Resolve RDAs and the Informal Complaints

41. Of the RDAs that were filed during the reporting period, eleven (22%) were completed within thirty days, eleven (22%) were completed within sixty days, six (12%) were completed within ninety days, seventeen (35%) were completed within 180 days, and three (6%) were completed after one hundred and eighty days. Two informal complaints were filed. In both cases, the orders were issued within the one hundred and eighty-day statutory time-period.¹²⁰

F. Actions for Mandamus and Appeals Filed

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

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

43. Section 717(b)(1)(G) requires the Commission to provide an assessment of the effect of the requirements of section 717 on the development and deployment of new communications technologies.¹²¹ We find that there has been no effect on the development and deployment of new communications technologies.

VII. CONCLUSION

45. Positive developments regarding the accessibility of telecommunications and advanced communications services and equipment have continued over the past two years. This report also recounts developments in new communications platforms. As we continue to monitor accessibility developments and gaps, Congress may wish to examine whether the CVAA should evolve to keep pace with technological developments. Based on commenters' input and the resolution of complaints, we recognize the importance of active stakeholder engagement, and are encouraged by the stakeholders' continued collaboration to ensure accessibility for millions of Americans with disabilities.

FEDERAL COMMUNICATIONS COMMISSION

Alejandro Roark, Chief
Consumer and Governmental Affairs Bureau

¹¹⁹ *Cellco Partnership D/B/A Verizon Wireless*, Notice of Apparent Liability for Forfeiture, DA No. 22-725 (EB July 8, 2022) (*Verizon NAL*).

¹²⁰ 47 USC § 618(a)(3)(B). See *ViaTalk EB Order*.

¹²¹ 47 U.S.C. § 618(b)(1)(G).

APPENDIX

List of Commenters

(CG Docket No. 10-213)

The complete record in this proceeding is available in the Commission's Electronic Comment Filing System located at <https://www.fcc.gov/ecfs/>.

Assessment Commenters

Consumer and Governmental Affairs Bureau Seeks Comment on the Accessibility of Communications Technologies for the 2018 Biennial Report Required by the Twenty-First Century Communications and Video Accessibility Act, CG Docket No. 10-213, Public Notice, DA 22-160 (CGB Feb. 16, 2022) (2022 CVAA Assessment Public Notice).

<u>Abbreviation</u>	<u>Commenter</u>
ACB	American Council of the Blind
AFB	American Foundation for the Blind
CACP	Center for Advanced Communications Policy
CTA	Consumer Technology Association
CTIA	CTIA - The Wireless Association
DHH CAO	Comments by Deaf and Hard of Hearing Consumer Advocacy Organizations were filed on behalf of Telecommunications for the Deaf and Hard of Hearing, Inc., American Association of the DeafBlind, Association of Late-Deafened Adults, Center on Access Technology, Communication Service for the Deaf, Conference of Educational Administrators of Schools and Programs for the Deaf, Deaf Seniors of America, Hearing Loss Association of America, National Association of the Deaf, Northern Virginia Resource Center of Deaf and Hard of Hearing Persons, Registry of Interpreters for the Deaf, and the Rehabilitation Engineering Research Center on Technology for the Deaf and Hard of Hearing.
HBDE	Hawaii Broadband & Digital Equity Office et al.

Tentative Findings Commenters

Consumer and Governmental Affairs Bureau Seeks Comment on Tentative Findings for the 2020 Twenty-First Century Communications and Video Accessibility Act Biennial Report, CG Docket No. 10-213, Public Notice, DA 22-661 (CGB June 22, 2022) (2022 CVAA Tentative Findings Public Notice).

<u>Abbreviation</u>	<u>Commenter</u>
CACP	Center for Advanced Communications Policy
CTA	Consumer Technology Association
NFB	National Federation of the Blind