

**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
)	
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)	WT Docket No. 96-198
)	
In the Matter of Accessible Mobile Phone Options for People who are Blind, Deaf-Blind, or Have Low Vision)	CG Docket No. 10-145
)	

SECOND REPORT AND ORDER

Adopted: April 26, 2013

Released: April 29, 2013

By the Commission: Commissioner McDowell not participating.

I. INTRODUCTION

1. In this Second Report and Order, we implement section 718 of the Communications Act of 1934, as amended (Act),¹ which was added by section 104 of the Twenty-First Century Communications and Video Accessibility Act of 2010 (CVAA)² to ensure that people with disabilities have access to emerging and innovative advanced communications technologies. Section 718 requires mobile phone manufacturers and mobile service providers that include or arrange for the inclusion of an Internet browser on mobile phones to ensure that the functions of the included browser are accessible to and usable by individuals who are blind or have a visual impairment, unless doing so is not achievable.³ Specifically, we take the following actions:

- Affirm that Internet browsers used for advanced communications services (ACS), that are installed or included by ACS equipment manufacturers or provided by ACS service providers, are software subject to section 716 of the Act.⁴
- Find that sections 716 and 718 have overlapping requirements with respect to ensuring the accessibility of Internet browsers.

¹ 47 U.S.C. § 619.

² Pub. L. No. 111-260, 124 Stat. 2751 (2010); Pub. L. No. 111-265, 124 Stat. 2795 (2010) (technical corrections to the CVAA).

³ The CVAA defines “achievable” as “with reasonable effort or expense.” See Section IV, *infra*, for further explanation of the factors used to determine whether providing accessibility is “achievable.”

⁴ 47 U.S.C. § 617 (requiring ACS providers and equipment manufacturers to make their services and equipment accessible to and usable by individuals with disabilities, unless doing so is not achievable).

- Adopt implementing regulations for section 718 that are consistent with the Commission's Part 14 rules implementing section 716.
- Decline to adopt requirements or safe harbors with respect to accessibility application programming interfaces (APIs).
- Retain section 14.31 of the Commission's rules with respect to recordkeeping requirements applicable to manufacturers and service providers subject to section 718.⁵

In accordance with the CVAA, the effective date for the new accessibility requirements under section 718 is three years after the enactment of the CVAA, or October 8, 2013.⁶

II. BACKGROUND

2. On October 7, 2011, the Commission adopted a Report and Order implementing section 716 of the Act⁷ (also added by the CVAA), which requires ACS and equipment used for ACS⁸ to be accessible to and usable by individuals with disabilities, unless doing so is not achievable.⁹ Section 716 of the Act requires each manufacturer of equipment used for advanced communications services, "including end user equipment, network equipment, and software, [to] ensure that the equipment and software that such manufacturer offers for sale or otherwise distributes in interstate commerce shall be accessible to and usable by individuals with disabilities," unless not achievable.¹⁰ As the Commission concluded in the *ACS Report and Order*, proper implementation of this section requires an understanding that ACS are delivered to the public within a complex and evolving ecosystem that is comprised of several components or layers, including hardware, an operating system, a user interface layer, applications,¹¹ network services, assistive technologies, accessibility application programming interfaces and the web browser.¹² The Commission further concluded that "[f]or individuals with disabilities to use

⁵ The ACS rules became effective on January 30, 2012, 30 days after their publication in the Federal Register. See 76 Fed. Reg. 82240 (Dec. 30, 2011). One year later, beginning January 30, 2013, covered entities must comply with requirements to keep records pertaining to the accessibility of their products and services. 47 U.S.C. § 618(a)(5)(A); 47 C.F.R. § 14.31.

⁶ CVAA § 104(b).

⁷ 47 U.S.C. § 617.

⁸ ACS and equipment covered by the accessibility requirements of section 716 include non-interconnected VoIP service; electronic messaging service, such as e-mail, instant messaging, and SMS text messaging; and interoperable video conferencing service. See 47 U.S.C. § 153(1); 47 C.F.R. § 14.10(c).

⁹ *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 1966; Accessible Mobile Phone Options for People who are Blind, Deaf-Blind, or Have Low Vision*, CG Docket No. 10-213, WT Docket No. 96-198, CG Docket No. 10-145, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 14557 (2011) (*ACS Report and Order* when referring to its Report and Order portion, and *ACS FNPRM* when referring to its FNPRM portion). See also 47 C.F.R. Part 14.

¹⁰ 47 U.S.C. § 617(a)(1).

¹¹ The Commission's rules define "application" as "software designed to perform or to help the user perform a specific task or specific tasks, such as communicating by voice, electronic text messaging, or video conferencing." 47 C.F.R. § 14.10(d).

¹² *ACS Report and Order*, 26 FCC Rcd at 14584-14585, ¶ 67. This conclusion differed slightly from the Commission's original description of the architecture of this ecosystem, presented in the *ACS NPRM*, which described Internet browsers as part of the user interface layer and also as an application. *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 1966; Accessible Mobile Phone* (continued....)

an advanced communications service, *all* of these components may have to support accessibility features and capabilities.”¹³ Finally, the Commission noted that “browsers may be used to access multiple forms of advanced communications services.”¹⁴

3. The *ACS Report and Order* also adopted rules to implement section 717,¹⁵ which establishes recordkeeping and enforcement requirements for entities covered under sections 255,¹⁶ 716, and 718 of the Act.¹⁷ The *ACS Report and Order* was accompanied by a Further Notice of Proposed Rulemaking that sought comment on rules to implement section 718. The Commission raised the following issues in the *ACS FNPRM*: (1) coverage of Internet browsers under section 716 and section 718; (2) best ways to implement section 718 to achieve compliance by the time the provision goes into effect; (3) accessibility application programming interfaces (APIs); and (4) the recordkeeping requirements.¹⁸ We address each of these issues below.

III. COVERAGE OF INTERNET BROWSERS UNDER SECTION 716 AND SECTION 718

A. General Coverage of Internet Browsers under Section 716

4. In the *ACS FNPRM*, the Commission suggested that when Congress separated out the obligation to provide access to web browsers on mobile phones for people who are blind or visually impaired in section 718, Congress intended to carve out an exception to section 716 “to address a special class of browsers for a specific subset of the disabilities community because of the unique challenges of achieving non-visually accessible solutions in a mobile phone and the relative youth of accessible development for mobile platforms.”¹⁹ The Commission sought comment on the scope of section 716’s coverage,²⁰ as well as this proposed clarification.²¹

5. Comments filed by consumer groups support the Commission’s conclusion that section 716 covers all end user equipment, hardware and manufacturer-provided software,²² including Internet browsers, used for ACS.²³ For example, the American Council of the Blind (ACB) and the American
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Options for People who are Blind, Deaf-Blind, or Have Low Vision, CG Docket No. 10-213, WT Docket No. 96-198, CG Docket No. 10-145, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 3133, 3141 at ¶ 15 (2011) (*ACS NPRM*). See also *ACS Report and Order*, 26 FCC Rcd at 14585, n.148.

¹³ *ACS Report and Order*, 26 FCC Rcd at 14585, ¶ 68 (emphasis in original).

¹⁴ *ACS FNPRM*, 26 FCC Rcd at 14683, n.766.

¹⁵ 47 U.S.C. § 618.

¹⁶ 47 U.S.C. § 255.

¹⁷ See *ACS Report and Order*, 26 FCC Rcd at 14650-14677, ¶¶ 219-278.

¹⁸ See *ACS FNPRM*, 26 FCC Rcd at 14681-14684, ¶¶ 292-297, 300. The *ACS FNPRM* also sought comment on the following issues, but the record is insufficient to make findings at this time: (1) specific technical challenges and security issues with the use of screen readers; (2) technical support/customer service requirements; and (3) how the Commission can encourage effective collaboration among stakeholders to facilitate the development of solutions to technical challenges. See *id.* at 14863-14864, ¶¶ 298-299.

¹⁹ *ACS FNPRM*, 26 FCC Rcd at 14681, ¶ 293 (footnote omitted).

²⁰ *ACS Report and Order*, 26 FCC Rcd at 14589, ¶ 80 (indicating that the *FNPRM* would seek “to develop a record on whether Internet browsers should be considered software generally subject to the requirements of Section 716” and soliciting comment on the appropriate regulatory approach for Internet browsers not built into mobile phones).

²¹ *ACS FNPRM*, 26 FCC Rcd at 14683, ¶ 296.

²² The Commission’s Part 14 rules, which implement sections 716 and 717, define software as “programs, procedures, rules, and related data and documentation that direct the use and operation of a computer or related device and instruct it to perform a given task or function.” 47 C.F.R. § 14.10(t).

²³ See *ACS Report and Order*, 26 FCC Rcd at 14584-14586, ¶¶ 67-69.

Foundation for the Blind (AFB) note that certain forms of ACS, such as e-mail, are often provided through Internet browsers.²⁴ Given this usage, ACB and AFB maintain that the failure to ensure the accessibility of browsers “would thwart the user’s ability to use the underlying advanced communications.”²⁵ More specifically, they explain that, because people with disabilities must launch and interact with a browser to make use of electronic messaging, an entity covered by section 716 must have an “obligation to ensure that all of the steps the user needs to engage in the electronic messaging it offers [are] accessible.”²⁶

6. The Consumer Electronics Association (CEA) and the Information Technology Industry Council (ITI) argue that section 716 does not cover Internet browsers.²⁷ Specifically, CEA claims that the Commission does not have the authority to directly regulate Internet browsers or the developers of Internet browsers because section 716(a) applies only to manufacturers of equipment used for ACS, and equipment is a physical machine or device.²⁸ CEA also claims that browsers are “information location tools” exempted by section 2 of the CVAA.²⁹ Similarly, ITI argues that an Internet browser is not ACS; rather, ITI says, “it is a gateway to a variety of static and dynamic information and web applications, some of which may be ACS.”³⁰ CTIA-The Wireless Association (CTIA), Microsoft Corporation (Microsoft) and the Telecommunications Industry Association (TIA) do not specifically challenge the Commission’s conclusion that section 716 covers Internet browsers; instead, their comments accept the Commission’s original conclusion that section 718 is an exception to section 716.³¹

7. *Discussion.* After carefully reviewing the record and the purpose of Internet browsers, we affirm our previous conclusion that equipment with manufacturer-installed or included Internet browsers³² used for ACS are encompassed within the term “equipment used for ACS” subject to section 716.³³ Likewise, an ACS provider is responsible for the accessibility of the underlying components of its service, including any software, such as an Internet browser, that it provides.³⁴ In the *ACS Report and Order*, we interpreted the scope of section 716 to include all software that is used for ACS and that is a component of the end user equipment, network equipment or the ACS service itself.³⁵ As noted by commenters, browsers are software that direct and instruct ACS equipment to perform the task of bringing information resources – such as electronic mail and other information – to users.³⁶ Accordingly,

²⁴ ACB/AFB Reply Comments at 7.

²⁵ ACB/AFB Reply Comments at 7.

²⁶ ACB/AFB Reply Comments at 7.

²⁷ See CEA Comments at 4-6; CEA Reply Comments at 6; ITI Comments at 1.

²⁸ CEA Comments at 5-6.

²⁹ CEA Comments at 6.

³⁰ ITI Comments at 1.

³¹ See CTIA Comments at 16; Microsoft Comments at 2; TIA Comments at 4.

³² For the purposes of this proceeding, we use the terms Internet browsers and web browsers interchangeably.

³³ See *ACS FNPRM*, 26 FCC Rcd at 14681, 14683, ¶¶ 293, 296. See also *ACS Report and Order*, 26 FCC Rcd at 14568, 14589, ¶¶ 27, 80.

³⁴ See *ACS Report and Order*, 26 FCC Rcd at 14590-14591, ¶¶ 85-86.

³⁵ See *ACS Report and Order*, 26 FCC Rcd at 14584, ¶ 65 (“if software gives the consumer the ability to engage in advanced communications, the provider of that software is a covered entity”).

³⁶ See ACB/AFB Reply Comments at 7. See also Wikipedia http://en.wikipedia.org/wiki/Web_browser (last visited April 11, 2013) (“A web browser (commonly referred to as a browser) is a software application for retrieving, presenting and traversing information resources on the World Wide Web. . . . The primary purpose of a web (continued....)”).

we disagree with the suggestion that browsers are merely information location tools exempted from section 716 and 718 by section 2 of the CVAA.³⁷ Browsers are used not only to locate information, but also to complete a host of other functions, including the retrieval and display of web-based resources.³⁸ Moreover, section 2 provides as examples of “information location tools” a “directory, index, reference, pointer, menu, guide, user interface, or hypertext link.”³⁹ Although the list of information location tools set forth in section 2 is not exhaustive, we find that the exclusion of Internet browsers from the list suggests that Congress did not intend for such browsers to be encompassed within section 2(a)(2) or otherwise exempt from accessibility requirements. In addition, were we to conclude that Internet browsers constitute “information location tools” under section 2, such an interpretation effectively would render section 718 meaningless, which by its very language, covers Internet browsers included in mobile telephones. Finally, we do not agree with CEA’s assertion that the Commission lacks authority to regulate Internet browsers or its developers because section 716(a)’s coverage of ACS equipment applies only to physical machinery.⁴⁰ The Commission has already concluded in the *ACS Report and Order* that software, including Internet browsers, is covered under section 716 when such software is included by a manufacturer of end user equipment used for ACS, and we find no basis for revisiting that conclusion at this time.⁴¹

8. In addition, were the Commission to rule that Internet browsers (other than those included in mobile phones and subject to section 718) are not encompassed within the term “equipment used for advanced communications services” in section 716, our rules would, in effect, require web-based ACS and Internet-enabled equipment used for ACS to be accessible, but not the Internet browsers that connect the two. This interpretation would eliminate coverage of essential software needed to access advanced communication services made available by web-based technologies. Moreover, were the Commission to rule that Internet browsers are required to be accessible only to individuals who are blind or visually impaired who use mobile phones, all other populations of people with disabilities who use mobile phones, as well as all individuals with disabilities who use other types of equipment for ACS, would be excluded from this protection. We believe that so narrow a finding would undermine

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browser is to bring information resources to [users] (‘retrieval’ or ‘fetching’), allowing them to view the information (‘display’, ‘rendering’), and then access other information (‘navigation’, ‘following links’).”)

³⁷ CVAA, § 2(a)(2).

³⁸ See, e.g., Merriam-Webster dictionary, <http://www.merriam-webster.com/dictionary/browser> (last visited April 11, 2013) (A “browser” is “a computer program used for *accessing* sites or information on a network (as the World Wide Web.)” (emphasis added); Oxford dictionary, <http://oxforddictionaries.com> (last visited April 11, 2013) (A “browser” is “a computer program with a graphical user interface for *displaying* HTML files . . .”) (emphasis added).

³⁹ CVAA, § 2(a)(2).

⁴⁰ See CEA Comments at 5-6.

⁴¹ See *ACS Report and Order*, 26 FCC Rcd at 14581, ¶ 60. Under the interpretation of section 716 adopted by the Commission in the *ACS Report and Order*, the phrase “including end user equipment, network equipment, and software” in the section’s accessibility mandate covers “both end user equipment and network equipment, as well as software included by the manufacturer in such equipment.” *Id.* The Commission concluded that to the extent that equipment used for ACS includes software components, “the manufacturer of the equipment is responsible for making sure that both ‘the equipment *and* software that such manufacturer offers for sale or otherwise distributes in interstate commerce is accessible.” *ACS Report and Order*, 26 FCC Rcd at 14581, ¶ 60, quoting 47 U.S.C. § 617(a)(1) (emphasis added by the Commission in the *ACS Report and Order*). Section 716 also covers software provided by ACS providers. See *ACS Report and Order*, 26 FCC Rcd at 14590-14591, ¶¶ 85-86.

Congress's objective to "ensure that individuals with disabilities are able to fully utilize communications services and equipment."⁴²

9. Congress recognized that although the "fundamental transformation" that has taken place in the communications market as a result of new Internet-based and digital technologies has "profoundly altered our everyday lives, streamlining tasks and allowing mobile access to the Internet and a diverse menu of applications and services,"⁴³ the "extraordinary benefits of these technological advances are sometimes not accessible to individuals with disabilities."⁴⁴ The CVAA was enacted to correct this disparity by helping to "ensure that individuals are able to utilize fully the essential advanced technologies that have developed since the passing of the Americans with Disabilities Act and subsequent statutes addressing communications accessibility."⁴⁵ Thus, the language and history of the CVAA confirm that Congress intended an interpretation of the CVAA's ACS provisions that would not limit the scope of ACS equipment or the scope of the disability communities protected.

10. Accordingly, we affirm our previous conclusion that section 716(a) requires a manufacturer of equipment used for ACS, such as computers, laptops, tablets, and other devices, that provides or installs Internet browsers with that equipment, to ensure that such equipment and software, including browsers, are accessible to and usable by individuals with disabilities, unless doing so is not achievable.⁴⁶ Among other things, this means that the functions of an Internet browser – to enable users, for example, to input a uniform resource locator (URL) into the address bar; to identify and activate home, back, forward, refresh, reload, and stop buttons; to view status information; and to activate zooming or other features that are used for ACS – must be accessible to individuals with disabilities, unless doing so is not achievable.⁴⁷ Likewise, we find that section 716(b) requires an ACS provider that provides or requires the use of a browser – *e.g.*, by directing users to download its Internet browser for the purpose of engaging in ACS – to ensure that such browsers are accessible to and usable by individuals with disabilities, unless doing so is not achievable.⁴⁸

11. *Information Pass Through.* We conclude that Internet browsers do not "pass through" information to independent downstream devices, software, or applications, as that term is used in section

⁴² House Report at 19. *See also id.* ("Internet-based and digital technologies are now pervasive, offering innovative and exciting ways to communicate and share information.")

⁴³ Senate Report at 1.

⁴⁴ Senate Report at 2.

⁴⁵ Senate Report at 3. *See also id.* at 1, noting that the CVAA is to ensure "access to emerging Internet Protocol-based communication . . . technologies in the 21st century. . . ."

⁴⁶ *See ACS Report and Order*, 26 FCC Rcd at 14584-14586, ¶¶ 65-71 (although section 716 requires that manufacturers of equipment are responsible for the accessibility of the software, including browsers, that they build into the equipment or otherwise provide, the Commission has interpreted section 716 as not requiring accessibility of software that is obtained by consumers independently of the equipment).

⁴⁷ *See generally*, *See* WhatIsMyIPAddress.com, *What is a Web Browser?*, available at <http://whatismyipaddress.com/web-browser> (last visited April 11, 2013) (noting that web browsers, in addition to locating and accessing web pages, contain toolbars that allow users to perform various functions, including returning to "home," booking favorite websites, printing retrieved content, checking web history, and moving forward and backward to different websites).

⁴⁸ *See ACS Report and Order*, 26 FCC Rcd at 14590, ¶ 85 ("As is the case with manufacturers, providers of ACS are responsible for ensuring the accessibility of the underlying components of the service, to the extent that doing so is achievable. For example, a provider of a web-based e-mail service could meet its obligations by ensuring its services are coded to web accessibility standards (such as the Web Content Accessibility Guidelines (WCAG)), if achievable.") (footnote omitted).

14.20(c) of the Commission's rules.⁴⁹ Internet browsers perform the functions of finding, retrieving, and displaying web pages.⁵⁰ In completing the retrieval and display of web-based resources, Internet browsers *utilize* capabilities defined by certain web standards or technologies (sometimes called plug-ins) to enable the connection to and presentation of web information, features, and capabilities to end users.⁵¹ Consequently, we find that the information pass-through requirement in our ACS rules is not applicable to Internet browsers.⁵² Nevertheless, we note that entities covered under section 716 are not relieved of their obligation to ensure that ACS and equipment used for ACS are otherwise accessible to and usable by people with disabilities, unless doing so is not achievable.⁵³ For example, if a covered entity installs or directs the installation of an Internet browser, and the browser supports a specific web standard, approved standards recommendations, or technology that includes the capabilities to support accessibility features and capabilities, the manufacturer or provider must ensure that the Internet browser can use such capabilities contained in those standards or technologies to support the intended accessibility features and capabilities in the ACS web application retrieved and displayed by the browser, unless doing so is not achievable. This is consistent with the requirement in section 716(e)(1)(B) that ACS and equipment used for ACS not impair or impede the accessibility of information content when accessibility has been incorporated into that content, unless doing so is not achievable.⁵⁴ Support for such accessibility features and capabilities will ensure that people with disabilities who use the Internet browser will be able to utilize accessibility metadata and functions contained in the webpages to which the browser connects – to the extent these are supported by the technology or standard in question.⁵⁵

⁴⁹ 47 C.F.R. § 14.20(c).

⁵⁰ See, e.g., us-cert.gov, *Understanding Your Computer: Web Browsers*, available at <http://www.us-cert.gov/ncas/tips/ST04-022> (last visited April 12, 2013).

⁵¹ For purposes of defining a browser, we include plug-ins as a part of the browser when they are installed and registered with the browser, and remain under administration of the browser and can be blocked or removed through the browser. See <http://www.pcmag.com/encyclopedia/term/38977/browser-plugin> (definition of browser plug-in) (last visited April 11, 2013). See also [http://en.wikipedia.org/wiki/Plug-in_\(computing\)](http://en.wikipedia.org/wiki/Plug-in_(computing)) (“In computing, a plug-in (or plugin) is a set of software components that adds specific abilities to a larger software application.”) (last visited April 11, 2013). See also Letter from Gerard J. Waldron, Counsel to Microsoft Corp., to Marlene H. Dortch, Secretary, FCC, CG Docket No. 10-145, at 1 (filed April 5, 2013) (Microsoft *Ex Parte*) (browsers do not “simply pass through the content of a website”). See also ¶ 7, *supra* (describing browsers as software that performs the function of retrieving and displaying web-based resources to users, not as passing through information to an independent downstream source).

⁵² 47 C.F.R. § 14.20(c) (requiring the pass through of cross-manufacturer, nonproprietary, industry-standard codes, translation protocols, formats, or other information necessary to provide ACS in an accessible format (“accessibility information”), if achievable). This requirement ensures, among other things, that signal compression technologies do not remove information needed for access, or that such information is restored upon decompression. *ACS Report and Order*, 26 FCC Rcd at 14596, ¶ 94. See also *Implementation of Sections 255 and 251(a)(2) of the Communications Act of 1934, as Enacted by the Telecommunications Act of 1966; Access to Telecommunications Service, Telecommunications Equipment and Customer Premises Equipment by Persons with Disabilities*, WT Docket No. 96-168, 16 FCC Rcd 6417, 6430, ¶ 22 (1999), *citing* 36 C.F.R. § 1193.37 (Access Board section 255 guidelines).

⁵³ 47 U.S.C. §§ 617(a)(1), (b)(1).

⁵⁴ 47 U.S.C. § 617(e)(1)(B). Thus, we recognize that an information pass-through requirement is not the sole manner in which section 716(e)(1)(B) can be implemented.

⁵⁵ See Understanding WCAG 2.0: A guide to understanding and implementing Web Content Accessibility Guidelines 2.0 (Appendix C Understanding Metadata), at <http://www.w3.org/TR/UNDERSTANDING-WCAG20/appendixC.html> (last visited April 11, 2013). For example, such metadata (data not generally displayed that provides context or information about other data) may include tags and navigational controls for screen reader (continued....)

12. When a browser does not support a particular technology that is needed to render all or part of the information contained in a webpage, that information is not rendered at all and is not made available to any user, with or without a disability.⁵⁶ Thus, to the extent that an included Internet browser does not support a particular technology that is needed to make web-based information available to the general public, we decline to require covered entities to ensure that such browsers support the technology solely for the purpose of achieving accessibility. That is, we reasonably interpret section 716 to be consistent with a requirement that manufacturers make accessible only those functionalities available using the technologies their browsers already support.

B. Overlapping Coverage of Internet Browsers under Sections 716 and 718

13. Having determined that Internet browsers are software generally subject to the requirements of section 716, we now turn to the relationship between sections 716 and 718. In the *ACS FNPRM*, the Commission proposed that section 718 be considered an exception to the general coverage of section 716 because of the “unique challenges of achieving non-visually accessible solutions in a mobile phone and the relative youth of accessible development for mobile platforms.”⁵⁷ Although some commenters support this interpretation,⁵⁸ upon further analysis, we conclude that section 718 is not an exception to section 716, but rather, overlaps in scope with section 718. As noted above, section 716 applies to all Internet browsers used for ACS that are built into ACS equipment or that may be required to be installed by ACS providers,⁵⁹ while section 718 applies only to the discrete category of Internet browsers built into mobile phones used for any purpose (not just to access ACS) by a discrete group of individuals with disabilities, that is, people who are blind or visually impaired.⁶⁰ Our conclusion that section 716 generally applies to all ACS equipment manufacturers and providers of ACS, as well as the software components of such equipment or services, is supported both by the statutory language and legislative history of section 716(a)(1).⁶¹ Nothing in the CVAA or its legislative history suggests that Congress intended to carve out a specific type of ACS or equipment used with ACS from these general coverage categories. Likewise, although section 718 limits its coverage to Internet browsers in telephones used with public mobile services, and focuses on the use of such browsers by individuals who are blind or visually impaired, its scope does not extend to a broader class of Internet browsers.⁶²

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technologies that are only made available to the user through the accessibility features contained in the standard or technology supported by the Internet browser.

⁵⁶ See *Microsoft Ex Parte* at 1-2 (“These gaps can affect all consumers and do not uniquely disenfranchise persons with disabilities.”). In the current environment, plug-ins are written to or adapted to specific browsers and versions, so no browser supports all plug-ins.

⁵⁷ *ACS FNPRM*, 26 FCC Rcd at 14681, ¶ 293 (footnote omitted). See also *id.*, at 14682-14683, ¶¶ 294-296.

⁵⁸ See CTIA Comments at 16; Microsoft Comments at 2; TIA Comments at 4.

⁵⁹ See *ACS Report and Order*, 26 FCC Rcd at 14581, 14590, ¶¶ 60, 85.

⁶⁰ See 47 U.S.C. § 619(a).

⁶¹ Section 716(a) applies the accessibility obligations to “a manufacturer of equipment used for advanced communication services, including end user equipment, network equipment, and software[.]” 47 U.S.C. § 617(a), while section 716(b) places this same obligation on “a provider of advanced communications services.” 47 U.S.C. § 617(b). Similarly, the House legislative report notes that section 716 “requires manufacturers of equipment used for advanced communications services and providers of advanced communications services to make such equipment and services accessible to individuals with disabilities, if doing so is achievable.” House Report at 24 (emphasis added). See also Senate Report at 7.

⁶² See House Report at 27 (explaining that section 718 requires that “functions on Internet browsers included on smart phones are accessible to and usable by individuals who are blind or have visual impairments.”) (emphasis added). Unlike section 716, section 718 does not specify that the covered Internet browsers must be used for ACS.

14. Accordingly, we find that, with respect to individuals with disabilities generally, section 716(a) covers manufacturers of all equipment (including mobile phones) that include an Internet browser used for ACS,⁶³ and section 716(b) covers ACS providers (including mobile service providers that provide ACS) that provide or require the installation and use of an Internet browser as an underlying component of their ACS.⁶⁴ We further find that, specifically with respect to individuals who are blind or visually impaired, section 718 covers manufacturers of mobile phones that include an Internet browser used for any purpose, as well as mobile service providers who arrange for the inclusion of an Internet browser used for any purpose.⁶⁵ Thus, we agree with ACB and AFB that Congress intended for section 718 to be “an insurance policy for people with vision loss specifically against inaccessibility of mobile phone browser functionality above and beyond advanced communication services.”⁶⁶ Although our conclusion that sections 716 and 718 overlap in scope is different from the Commission’s original proposal to interpret section 718 as an exception to section 716, both approaches reach the same fundamental conclusion – *i.e.*, that section 716 generally applies to Internet browsers that are provided or installed by an ACS equipment manufacturer or service provider as a component of its equipment or service, and that section 718 more specifically requires access to browsers by individuals who are blind or have a visual impairment, when such browsers are included on a telephone used with mobile services. This interpretation is consistent with the original proposal that section 716 applies to all Internet browsers used for ACS that manufacturers provide or build into equipment or that are provided by ACS providers as underlying components of their service. It is also consistent with the original proposal that section 718 applies to a subset of these browsers, though without limitation as to their usage for ACS.⁶⁷

IV. IMPLEMENTATION OF SECTION 718

15. In the *ACS FNPRM*, the Commission sought comment on what steps it should take to “ensure that the mobile phone industry will be prepared to implement accessibility features when section 718 becomes effective on October 8, 2013.”⁶⁸ The record is scant on the best technical or other means for achieving compliance by that date. However, the Commission will continue to offer whatever assistance it can to encourage effective collaboration among stakeholders in the development of solutions to the technical challenges associated with ensuring access to Internet browsers in mobile phones. In addition, the Commission plans to consider the need for performance guidelines that could assist in the implementation of this section, as well as section 716, after the Architectural and Transportation Barriers Compliance Board (Access Board) adopts industry technical guidelines implementing section 255 of the Act, which requires accessible telecommunications⁶⁹ and section 508 of the Rehabilitation Act of 1973,

⁶³ See 47 U.S.C. § 617(a).

⁶⁴ See 47 U.S.C. § 617(b).

⁶⁵ Section 718 (a) states: “If a manufacturer of a *telephone used with public mobile services* . . . includes an Internet browser in such telephone, or if a provider of mobile services arranges for the inclusion of a browser in telephones to sell to customers, the manufacturer or provider shall ensure that *the functions of the included browser* . . . are accessible to and usable by individuals who are blind or have a visual impairment. . . .” 47 U.S.C. § 619(a) (emphasis added).

⁶⁶ ACB/AFB Reply Comments at 7.

⁶⁷ See generally, *Crawford v. FCC*, 417 F.3d 1289, 1295 (D.C. Cir. 2005) (the rule ultimately adopted may be a “logical outgrowth” of the original proposal), citing *First Am. Discount Corp. v. Commodity Futures Trading Comm’n*, 222 F.3d 1008, 1015 (D.C. Cir. 2000); *Fertilizer Inst. v. EPA*, 935 F.2d 1303, 1311 (D.C. Cir. 1991); *Weyerhaeuser Co. v. Costle*, 590 F.2d 1011, 1031 (D.C. Cir. 1978). See *ACS FNPRM*, 26 FCC Rcd at 14681, 14683, ¶¶ 293, 296. See also *ACS Report and Order*, 26 FCC Rcd at 14568, 14589, ¶¶ 27, 80.

⁶⁸ *ACS FNPRM*, 26 FCC Rcd at 14684, ¶ 300.

⁶⁹ 47 U.S.C. § 255.

which requires federal agencies to provide and maintain accessible information and communications technology (ICT).⁷⁰

16. CEA and T-Mobile request that the Commission wait two years after the release of the order adopting the final section 718 rules to require full compliance with these rules.⁷¹ They argue that service providers and manufacturers cannot begin to design products to comply with section 718 until the Commission adopts the implementing regulations.⁷² CEA contends that this two-year phase-in is necessary to allow covered entities to implement mobile browser accessibility features early in the product development cycle and that this time frame would be consistent with other similar prior technical requirement implementation periods.⁷³ We decline to grant CEA and T-Mobile's requests. First, the CVAA clearly states that section 718 "shall take effect 3 years after the date of enactment" of the CVAA,⁷⁴ and thus establishes a statutory effective date of October 8, 2013.⁷⁵ Moreover, the industry has been aware of the section 718 mobile phone browser requirements since the CVAA was adopted on October 8, 2010, and the regulations we are adopting today not only follow the statutory language of section 718, but as discussed below, are consistent with the regulations adopted for section 716. In addition, we note that the Commission provided notice of this implementation deadline approximately one and a half years ago in the *ACS Report and Order* and *ACS FNPRM*,⁷⁶ thus, covered entities have had ample time in which to come into compliance with section 718. Therefore, we reiterate that by October 8, 2013, covered entities must be in compliance with the rules adopted herein, and Internet browsers included in mobile telephones must be accessible to and usable by individuals who are blind or have a visual impairment by that date, unless doing so is not achievable.⁷⁷

17. Except as discussed below, and consistent with the comments received, we adopt rules for section 718 that are analogous to the Commission's Part 14 rules implementing section 716.⁷⁸ Although section 718 does not prescribe requirements that are as detailed as those in section 716(e),⁷⁹

⁷⁰ 29 U.S.C. § 794d. See Architectural and Transportation Barriers Compliance Board, *Telecommunications Act Accessibility Guidelines; Electronic and Information Technology Accessibility Standards*, Docket No. 2011-07, Advanced Notice of Proposed Rulemaking, 76 FR 76640, December 8, 2011, found at <http://www.access-board.gov/508.htm> (last visited April 11, 2013).

⁷¹ See CEA Comments at 9; CEA Reply Comments at 6-7; T-Mobile Reply Comments at 5.

⁷² See CEA Reply Comments at 6-7; T-Mobile Reply Comments at 5.

⁷³ See CEA Comments at 9-10.

⁷⁴ CVAA § 104(b).

⁷⁵ See ITI Comments at 1 (supports a common implementation date for sections 716 and 718 and states: "The Commission's decision to make the 716 ACS rules take effect in October 2013 means they align well with the statutory date for 718."); RERC-TA Comments at 10-11 (opposes extension of the effective date, stating: "Browsers are very powerful tools and can and have been shown to be able to be made accessible even on portable phones. . . . And there should be no browser exemption or it will simply guarantee that no efforts are made on browsers in general to build in the accessibility that is already present on some phones today.").

⁷⁶ *ACS Report and Order* and *ACS FNPRM*, 26 FCC Rcd at 14562, 14589, 14681, 14684, ¶¶ 7, 80, 292, 300. The Commission also provided notice of the October 8, 2013 effective date for section 718 at the time it issued its Notice of Proposed Rulemaking in the ACS proceeding on March 3, 2011. See *ACS NPRM*, 26 FCC Rcd at 3137, 3186, ¶¶ 6, 144.

⁷⁷ See 47 U.S.C. § 718.

⁷⁸ See 47 C.F.R. §§ 14.1 *et seq.* See also CEA Comments at 8-9; CEA Reply Comments at 5; Microsoft Comments at 2-3; TIA Comments at 4-5; TIA Reply Comments at 2; VON Coalition Comments at 2-3; T-Mobile Reply Comments at 4-5.

⁷⁹ 47 U.S.C. § 617(e).

716(a) and (b) and sections 718(a) and (b) are very similar, and the rules we adopt in this Order will reduce uncertainty and ensure a consistent regulatory approach. The absence in section 718 of a specific provision mirroring section 716(e) does not suggest that Congress intended for sections 716 and 718 to be implemented differently from one another with respect to the criteria discussed here. Rather, given the general similarities between these two statutory provisions, we have discretion under our general rulemaking authority to “fill in the gaps” in implementing section 718.⁸⁰

18. *Scope of Obligations.* In defining the obligations of mobile telephone manufacturers and mobile service providers, we have looked to the statute, just as the Commission did when implementing section 716.⁸¹ Section 718 reads:

If a manufacturer of a telephone used with public mobile services . . . includes an Internet browser in such telephone, or if a provider of mobile service arranges for the inclusion of a browser in telephones to sell to customers, the manufacturer or provider shall ensure that the functions of the included browser (including the ability to launch the browser) are accessible to and usable by individuals who are blind or have a visual impairment, unless doing so is not achievable⁸²

19. *“Accessible to and Usable by.”* We define the terms “accessible” and “usable” as the Commission has previously defined these terms when implementing sections 716(a)(1) and (b)(1)⁸³ and sections 255(b) and (c) of the Act.⁸⁴ Consistent with the *Section 255 Report and Order* and the *ACS Report and Order*, we find that adoption of the functional approach reflected in such requirements will provide clear guidance to covered entities regarding their obligation to ensure accessibility and usability.⁸⁵

20. *Product Design, Development, and Evaluation.* We adopt key requirements similar to those in our section 255 and section 716 rules regarding product design, development, and evaluation.⁸⁶

⁸⁰ See 47 U.S.C. § 154(i). See also *Chevron, U.S.A. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984) (“The power of an administrative agency to administer a congressionally created . . . program necessarily requires the formulation of policy and the making of rules to fill any gap left, implicitly or explicitly, by Congress[.]” quoting *Morton v. Ruiz*, 415 U.S. 199, 231 (1974)).

⁸¹ See *ACS Report and Order*, 26 FCC Rcd at 14564-14565, ¶¶ 13, 14. See also *id.* at 14580, 14585-14586, 14589, 14590, ¶¶ 56, 69-70, 81, 85; 47 C.F.R. §§ 14.1 (Applicability), 14.20(a) (General Obligations).

⁸² 47 U.S.C. § 619(a); 47 C.F.R. §§ 14.60 (Applicability), 14.61 (Obligations with Respect to Internet Browsers Built into Mobile Phones) (Appendix B). See also House Report at 27; Microsoft Comments at 2-3; VON Coalition Comments at 2-4 (section 718 covers manufacturers and service providers, but not developers of Internet browsers included in mobile telephones, because such developers are neither manufacturers nor providers of mobile equipment or service).

⁸³ 47 U.S.C. §§ 617(a)(1) and (b)(1). See *ACS Report and Order*, 26 FCC Rcd at 14605-14606, ¶¶ 114-115; 47 C.F.R. §§ 14.21(b) and (c).

⁸⁴ 47 U.S.C. §§ 255(b) and (c). See *Implementation of Sections 255 and 251(a)(2) of the Communications Act of 1934, as Enacted by the Telecommunications Act of 1966; Access to Telecommunications Service, Telecommunications Equipment and Customer Premises Equipment by Persons with Disabilities*, WT Docket No. 96-168, 16 FCC Rcd 6417, 6429-6431, ¶¶ 21-24 (1999) (*Section 255 Report and Order*); 47 C.F.R. §§ 6.3(a) and (l), 7.3(a) and (l); *ACS Report and Order*, 26 FCC Rcd at 14646-14647, ¶¶ 210-211; 47 C.F.R. §§ 14.21(b) and (c) (generally covering performance objectives for various populations of people with disabilities).

⁸⁵ See *Section 255 Report and Order*, 16 FCC Rcd at 6429-6430, ¶ 22; *ACS Report and Order*, 26 FCC Rcd at 14594-96, ¶¶ 93-94.

⁸⁶ See 47 C.F.R. §§ 6.7-6.11, 7.7-7.11, and 14.20(b), (c), and (d). See also *ACS FNPRM*, 26 FCC Rcd at 14683, ¶ 296 (seeking comment “on the best way(s) to implement Section 718, so as to afford affected manufacturers and service providers the opportunity to provide input at the outset, as well as to make the necessary arrangements to achieve compliance by the time the provisions go into effect”) and ¶ 298 (seeking comment on the “types of (continued....)”).

In the *ACS Report and Order*, the Commission concluded that in many instances, accessibility is more likely to be achievable if entities covered under section 716 consider accessibility issues early in the development cycle.⁸⁷ Because this same design principle applies equally to Internet browsers installed in mobile telephones, we now apply section 14.20(b)(1), which requires ACS manufacturers and service providers to consider performance objectives at the design stage as early as possible,⁸⁸ to manufacturers and service providers covered under section 718. Similarly, the *ACS Report and Order* and section 14.20(b)(2) of the Commission's rules require manufacturers and service providers covered under section 716 to identify barriers to accessibility and usability as part of their evaluation when considering implementation of the accessibility performance objectives.⁸⁹ Because this is a critical consideration when designing accessibility for equipment and services, we also apply section 14.20(b)(2) to manufacturers and service providers covered under section 718.

21. *Information Pass Through.* As previously noted, the *ACS Report and Order* and section 14.20(c) of the Commission's rules further require ACS providers and equipment manufacturers to pass through cross-manufacturer, nonproprietary, industry-standard codes, translation protocols, formats, or other information necessary to provide ACS in an accessible format ("accessibility information"), if achievable.⁹⁰ We adopted this provision to implement section 716(e)(1)(B) of the Act,⁹¹ which requires the Commission to adopt regulations that ensure that ACS and the networks used to provide ACS not "impair or impede the accessibility of information content when accessibility has been incorporated into that content."⁹² We note, however, that there is no parallel language in section 718. Additionally, as noted above, we have determined that this information pass-through requirement is not applicable to Internet browsers because browsers do not "pass through" information to independent downstream devices, software, or applications, as that term is used in section 14.20(c) of the Commission's rules.⁹³ Rather, browsers use the capabilities provided by supported standards and technologies (*e.g.* plug-ins) to connect to web applications and to use these capabilities to properly present or render the webpage information for the end user. Therefore, we decline to apply the information pass-through requirement to entities covered under section 718.⁹⁴ Nevertheless, consistent with our treatment of entities covered under

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technical support/customer service [that] mobile phone operators need to provide to ensure initial and continued accessibility in browsers").

⁸⁷ *ACS Report and Order*, 26 FCC Rcd at 14609, ¶ 124.

⁸⁸ 47 C.F.R. § 14.20(b)(1). *See also ACS Report and Order*, 26 FCC Rcd at 14596, ¶ 94. This requirement is similar to the Commission's rules implementing section 255. *See* 47 C.F.R. §§ 6.7(a) and 7.7(a).

⁸⁹ *ACS Report and Order*, 26 FCC Rcd at 14596, 14602, ¶¶ 94, 108; 47 C.F.R. § 14.20(b)(2). This requirement is also similar to the Commission's rules implementing section 255. *See* 47 C.F.R. §§ 6.7(a) and 7.7(a).

⁹⁰ *See* n.12, *supra*.

⁹¹ *ACS Report and Order*, 26 FCC Rcd at 14596, ¶ 94.

⁹² 47 U.S.C. § 617(e)(1)(B); 47 C.F.R. § 14.20(b)(1).

⁹³ *See* ¶ 11, *supra*.

⁹⁴ *See* Letter from Paul Margie, Counsel to Apple Inc., to Marlene H. Dortch, Secretary, FCC, CG Docket No. 10-145, at 1 (filed April 5, 2013) (*Apple Ex Parte*) ("[T]he Commission should not require mobile web browsers to comply with Section 716's pass-through provision."). Accordingly, it is not necessary to promulgate requirements to implement section 716(e)(1)(B) to mobile phone manufacturers and providers subject to section 718. We also agree with CEA that section 718(a) does not impose any requirement on covered manufacturers and service providers "to make Internet content, applications, or services accessible or usable." 47 U.S.C. § 619(a)(2) ("[T]his subsection shall not impose any requirement on [a manufacturer of a telephone used with public mobile services] or [a provider of mobile service] . . . to make Internet content, applications, or services accessible or usable (other than enabling individuals with disabilities to use an included browser to access such content, applications or services)."). *See* CEA Comments at 7. *See also* TIA Comments at 5-6; TIA Reply Comments at 2-3; VON Coalition Comments at 3.

section 716, we note that entities covered under section 718 are not relieved of their overall obligation to ensure that Internet browsers on mobile phones are otherwise accessible to and usable by people with disabilities, unless doing so is not achievable.⁹⁵ In the case of section 718, this will require a covered entity that installs or directs the installation of an Internet browser that supports a specific web standard, approved standards recommendations, or technology that includes the capabilities to support accessibility features and capabilities, to ensure that the Internet browser can use such capabilities contained in those standards or technologies to support the intended accessibility features and capabilities in the web application retrieved and displayed by the browser, unless doing so is not achievable.

22. We also recognize, as noted above for entities covered under section 716,⁹⁶ that not all browsers support all technologies used to access web resources. In the case of Internet browsers provided for use in the mobile phone environment, manufacturers often decide which technologies the browsers on their phones will support, based on a variety of complex factors, including these devices' processing power, battery use, memory, and security issues.⁹⁷ Thus, to the extent that an included Internet browser does not support a particular technology that is needed to make web-based information available to the general public, we also decline to require entities covered under section 718 to ensure that such browsers support the technology solely for the purpose of achieving accessibility, *i.e.*, these entities must make accessible only those functionalities available using the technologies that their browsers already support. We remind covered entities, however, that this decision does not relieve mobile phone manufacturers or service providers covered under section 718 of their obligation to “enabl[e] individuals with disabilities to use an included browser to access [Internet] content, applications, or services.”⁹⁸

23. *Information, Documentation, and Training.* Lastly, the *ACS Report and Order* and section 14.20(d) of the Commission's rules require manufacturers and service providers covered under section 716 to ensure that information and documentation that they provide to customers are accessible, if achievable.⁹⁹ Because accessible information and documentation about products and services are often necessary for the equipment and services to be usable by consumers with disabilities, we will apply section 14.20(d) to manufacturers and service providers covered under section 718.

24. “*Achievable.*” Section 716(g) of the Act defines the term “achievable” to mean “with reasonable effort or expense, as determined by the Commission”¹⁰⁰ and requires consideration of the following factors when making determinations about what constitutes reasonable effort or expense:

- (1) The nature and cost of the steps needed to meet the requirements of this section with respect to the specific equipment or service in question.
- (2) The technical and economic impact on the operation of the manufacturer or provider and on the operation of the specific equipment or service in question, including on the development and deployment of new communications technologies.
- (3) The type of operations of the manufacturer or provider.
- (4) The extent to which the service provider or manufacturer in question offers accessible services or equipment containing varying degrees of functionality and features, and offered at differing price points.¹⁰¹

⁹⁵ 47 U.S.C. § 619(a).

⁹⁶ See ¶ 12, *supra*.

⁹⁷ Microsoft *Ex Parte* at 2 (“Many valid and customer-centric reasons drive browsers to not render or enable all website features.”).

⁹⁸ 47 U.S.C. § 619(a)(2).

⁹⁹ *ACS Report and Order*, 26 FCC Rcd at 14596, 14604, ¶¶ 94, 111; 47 C.F.R. § 14.20(d). This requirement is similar to the Commission's rules implementing section 255. See 47 C.F.R. §§ 6.11 and 7.11.

¹⁰⁰ 47 U.S.C. § 617(g).

Because section 716(g) defines “achievable” for the purposes of both section 716 and section 718,¹⁰² we define and apply the term “achievable” to entities covered under section 718(a)¹⁰³ in the same manner as this term is defined in section 716(g) and as it is applied to entities covered under section 716(a)(1) and (b)(1).¹⁰⁴

25. *Industry Flexibility.* We define and apply the industry flexibility provisions contained in section 718(b)¹⁰⁵ in the same manner as these provisions are defined and applied in sections 716(a)(2) and (b)(2).¹⁰⁶ These provisions – which are virtually identical – allow industry the flexibility to satisfy the respective accessibility requirements of sections 716(a)(1), 716(b)(1), and 718(a)¹⁰⁷ with or without the use of third party applications, peripheral devices, software, hardware, or customer premises equipment that are available to consumers at nominal cost and that individuals with disabilities can access.¹⁰⁸ This is in keeping not only with the statutory provisions, but with Congress’s intent “to ensure that service providers and manufacturers have maximum flexibility in implementing this section [718], while at the same time ensuring that accessibility is achieved.”¹⁰⁹ CTIA expresses concern that patents and licenses may limit the scope of what providers and manufacturers are able to offer, and requests that the Commission not require any particular technological method for compliance.¹¹⁰ We believe that by implementing section 718(b) in the same manner as section 716(a)(2) and (b)(2), which provides for industry flexibility to satisfy the accessibility requirements of section 718(a), we have addressed CTIA’s concern.

26. *Compatibility.* Section 716(c) requires that if compliance with the accessibility requirements for ACS and equipment used for ACS is not achievable (either through built-in or third-party solutions), then such equipment or services must be compatible with existing peripheral devices or specialized customer premises equipment commonly used by individuals with disabilities to achieve access, unless doing so is not achievable.¹¹¹ Unlike the other provisions discussed above, where we implement section 718 by adopting rules comparable to the rules adopted to implement section 716, there is no provision in section 718 parallel to section 716(c) that would demonstrate that Congress intended such a requirement for section 718.¹¹² As such, we find that there is no statutory basis for imposing a

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¹⁰¹ *Id.*

¹⁰² *Id.*

¹⁰³ 47 U.S.C. § 619(a).

¹⁰⁴ 47 U.S.C. §§ 617(a)(1) and (b)(1). *See ACS Report and Order*, 26 FCC Rcd at 14607-14619, ¶¶ 119-148; 47 C.F.R. § 14.10(b). *See also* CEA Comments at 8-9; TIA Comments at 4-5; T-Mobile Reply Comments at 4. CTIA expresses concern that the processing power on some mobile phones may not be able to support running a full screen reading browser and a screen reader simultaneously. *See* CTIA Comments at 19. Covered entities may take into consideration the factors cited herein to assess whether this is achievable.

¹⁰⁵ 47 U.S.C. § 619(b).

¹⁰⁶ 47 U.S.C. §§ 617(a)(2) and (b)(2).

¹⁰⁷ 47 U.S.C. §§ 617(a)(1) and (b)(1) and 619(a).

¹⁰⁸ 47 U.S.C. §§ 617(a)(2) and (b)(2) and 619(b). *See ACS Report and Order*, 26 FCC Rcd at 14619-14624, ¶¶ 149-157.

¹⁰⁹ House Report at 27. *See also* CEA Comments at 8; Microsoft Comments at 2; TIA Comments at 4-5.

¹¹⁰ CTIA Comments at 19-20.

¹¹¹ 47 U.S.C. § 617(c). *See ACS Report and Order*, 26 FCC Rcd at 14624-14629, ¶¶ 158-169. *See also* 47 C.F.R. § 14.21(d).

¹¹² *See* 47 U.S.C. § 619.

compatibility requirement for entities covered under section 718. However, we note that mobile phones that include Internet browsers are generally also subject to the compatibility requirements of both section 716(c) to the extent the mobile phones are used for ACS, such as electronic messaging,¹¹³ and section 255(d), to the extent the mobile phones are used for telecommunications service.¹¹⁴

27. *Exceptions.* Section 716 provides for an exemption from the accessibility requirements for customized equipment or services,¹¹⁵ and gives the Commission authority to waive such requirements for small entities¹¹⁶ and multipurpose services and equipment.¹¹⁷ However, section 718 contains no parallel exemption or waiver provisions.¹¹⁸ Accordingly, we do not find sufficient basis to establish similar exemptions and waiver provisions regarding the requirements of section 718 of the Act for entities covered under that provision. Nevertheless, an entity covered by section 718 could petition for a waiver of the Commission's rules implementing section 718 pursuant to the Commission's general waiver provisions requiring petitioners to show good cause to waive the rules, and a showing that the particular facts of the petitioner's circumstances make compliance inconsistent with the public interest.¹¹⁹

V. ACCESSIBILITY APPLICATION PROGRAMMING INTERFACES

28. An application programming interface (API) is software that an application program uses to request and carry out lower-level services performed by the operating system of a computer or telephone.¹²⁰ An accessibility API, in turn, is a specialized interface developed by a platform owner which can be used to communicate accessibility information about user interfaces to assistive technologies.¹²¹ For example, an application such as a screen reader would request information from the API about text or graphical elements displayed on the screen. The screen reader would then verbalize the contents to the user, thereby providing the user with accessibility to the browser and other programs installed on the device.¹²²

29. The *ACS FNPRM* sought comment on whether to require the inclusion of an accessibility API in mobile phone operating systems.¹²³ Specifically, the Commission asked whether the inclusion of an accessibility API would foster or simplify the incorporation of screen readers into mobile platforms across different phones, which would render the Internet browser and other mobile phone functions accessible to individuals who are blind or visually impaired.¹²⁴ The Commission also asked about the

¹¹³ 47 U.S.C. § 617(c).

¹¹⁴ 47 U.S.C. § 255(d).

¹¹⁵ 47 U.S.C. § 617(i). See *ACS Report and Order*, 26 FCC Rcd at 14630-14633, ¶¶ 170-178; 47 C.F.R. § 14.3.

¹¹⁶ 47 U.S.C. § 617(h)(2). See *ACS Report and Order*, 26 FCC Rcd at 14642-14646, ¶¶ 201-209; 47 C.F.R. § 14.4.

¹¹⁷ 47 U.S.C. § 617(h)(1). See *ACS Report and Order*, 26 FCC Rcd at 15633-14642, ¶¶ 179-200; 47 C.F.R. § 14.5.

¹¹⁸ See 47 U.S.C. § 619.

¹¹⁹ 47 C.F.R. § 1.3. See *Northeast Cellular Telephone Co., L.P. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990) (citing *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969)). See also *ACS Report and Order*, 26 FCC Rcd at 14637, ¶ 188. We note, however, that the Commission could not lawfully grant relief from a Commission rule that imposed an obligation codified in section 718, unless it also grants forbearance under section 10 from the application of the associated statutory requirement. 47 U.S.C. § 10.

¹²⁰ See Harry Newton, *Newton's Telecom Dictionary*, 68 (CMP Books, 20th ed. 2004).

¹²¹ See HTML to Platform Accessibility APIs Implementation Guide, W3C Editor's Draft, June 10, 2011, available at http://dev.w3.org/html5/html-api-map/overview.html#intro_aapi (last visited April 11, 2013).

¹²² See Iowa Department for the Blind, *How Does a Screen Reader Work?*, available at <http://blind.state.ia.us/access/how.htm> (last visited April 11, 2013).

¹²³ *ACS FNPRM*, 26 FCC Rcd at 14683, ¶ 297.

¹²⁴ *Id.*

technical challenges, for both software developers and manufacturers, involved in developing an accessibility API.¹²⁵

30. Some commenters maintain that accessibility APIs can help make Internet browsers and mobile phone functions accessible through non-visual alternatives, such as text-to-speech functions in applications written to APIs.¹²⁶ However, several parties also describe other techniques that are used to make browsers accessible, such as text-to-speech functions built directly into the browser.¹²⁷ Section 718(b) provides covered entities the flexibility to satisfy the accessibility requirements of section 718(a) by either building accessibility features into their equipment or services or by relying on third party applications, peripheral devices, software, hardware, or customer premises equipment that are available to consumers at nominal cost and that individuals with disabilities can access.¹²⁸ Because there are various methods to achieve compliance with the section 718 requirements, and there is a need to afford covered entities flexibility on how to comply, as generally recommended by the commenters, at this time, we do not mandate that covered entities include accessibility APIs in mobile phones.¹²⁹

31. Further, we decline to establish the inclusion of an accessibility API in a mobile phone as a safe harbor for compliance with section 718. CTIA cautions that adoption of accessibility APIs as safe harbors at this time may hinder innovation in screen reader and other technologies.¹³⁰ TIA suggests that the Commission encourage industry forums and working groups to develop accessibility API standards for mobile browsers that could be adopted as voluntary safe harbors in the future.¹³¹ The Rehabilitation Engineering Research Center on Telecommunications Access (RERC-TA), on the other hand, argues that an API is simply a connector that makes it easier to implement accessibility, but an API does not in and of itself result in accessibility, and thus it is not good enough to create an API if there is no assistive technology to plug into it.¹³² We find that the record is insufficient to support any safe harbor standards at this time. However, the Commission may consider this issue again after the Access Board adopts industry technical guidelines on accessible telecommunications under section 255 of the Act¹³³ and on electronic and information technologies used by federal agencies under section 508 of the Rehabilitation Act of 1973.¹³⁴

¹²⁵ *Id.*

¹²⁶ See CTIA Comments at 17; Google Comments at 6-8; ITI Comments at 2; Microsoft Comments at 3-4; RERC-TA Comments at 11-12; TIA Comments at 5; TIA Reply Comments at 3.

¹²⁷ See CTIA Comments at 17-18; ITI Comments at 2; RERC-TA Comments at 11-12; TIA Comments at 5; TIA Reply Comments at 3; CEA Reply Comments at 7. CTIA also cites as an example the HTML 5 standard for Internet browsers, which may not need a specific API to achieve accessibility because it utilizes cloud computing, which has no need for plug-ins and allows applications, including accessibility information, to be stored in and be available from a remote computing location. See CTIA Comments at 18.

¹²⁸ See 47 U.S.C. § 619(b).

¹²⁹ See CEA Comments at 8; CEA Reply Comments at 7; CTIA Comments at 17-18; Google Comments at 8; ITI Comments at 2; Microsoft Comments at 3-4; RERC-TA Comments at 11-12; TIA Comments at 5; TIA Reply Comments at 3.

¹³⁰ See CTIA Comments at 17-18.

¹³¹ See TIA Comments at 5; TIA Reply Comments at 3. See also ITI Comments at 3 (supporting a safe harbor for those vendors who decide to implement an accessibility API); Microsoft Comments at 4 (in appropriate contexts would welcome safe harbor status for appropriate accessibility APIs).

¹³² RERC-TA Comments at 12-13.

¹³³ 47 U.S.C. § 255.

¹³⁴ 29 U.S.C. § 794d.

VI. RECORDKEEPING REQUIREMENTS

32. Section 717(a)(5)(A) of the Act requires that, beginning one year after the effective date of the regulations enacted to implement section 716, each manufacturer and service provider subject to sections 255, 716, and 718 of the Act¹³⁵ maintain records of its efforts to implement sections 255, 716, and 718, including:

- (i) Information about the manufacturer's or service provider's efforts to consult with individuals with disabilities.
- (ii) Descriptions of the accessibility features of its products and services.
- (iii) Information about the compatibility of a company's products and services with peripheral devices or specialized customer premise equipment commonly used by individuals with disabilities to achieve access.¹³⁶

33. In the *ACS Report and Order*, the Commission adopted recordkeeping requirements implementing the above statutory language for manufacturers and service providers covered under sections 255, 716, and 718 of the Act.¹³⁷ As required by section 717(a)(5)(A),¹³⁸ these recordkeeping requirements became effective on January 30, 2013, which was one year after the effective date of the regulations implementing section 716.¹³⁹ In the *ACS FNPRM*, the Commission sought comment on whether the recordkeeping requirements adopted in the *ACS Report and Order* for entities covered under section 718 should be retained or altered.¹⁴⁰

34. As generally supported by the commenters, we retain the recordkeeping requirements adopted in the *ACS Report and Order* for manufacturers and service providers covered under section 718.¹⁴¹ CEA and T-Mobile propose delaying implementation of the recordkeeping requirements for an additional year for entities covered by section 718, arguing that until the final section 718 rules are released, covered entities will be unable to determine whether or for which products they must keep records.¹⁴² However, as discussed above, section 717(a)(5)(A) clearly mandates that each manufacturer and service provider subject to sections 255, 716, and 718 shall maintain such records beginning one year after the effective date of the regulations promulgated to implement section 716.¹⁴³ Moreover, with respect to what products are covered, section 718 on its face is very specific: "a telephone used with public mobile services (as such term is defined in section 710(b)(4)(B)) [that] includes an Internet browser in such telephone."¹⁴⁴ Accordingly, we decline to delay implementation of the recordkeeping requirements as they pertain to manufacturers and service providers covered under section 718.

¹³⁵ 47 U.S.C. §§ 255, 617 and 619.

¹³⁶ 47 U.S.C. § 618(a)(5)(A).

¹³⁷ 47 U.S.C. §§ 255, 617 and 619. *See ACS Report and Order*, 26 FCC Rcd at 14651-14656, ¶¶ 220-230.

¹³⁸ 47 U.S.C. § 618(a)(5)(A).

¹³⁹ 47 U.S.C. § 617. *See ACS Report and Order*, 26 FCC Rcd at 14602, ¶ 109.

¹⁴⁰ *See ACS Report and Order*, 26 FCC Rcd at 14692, ¶ 317.

¹⁴¹ *See* CEA Comments at 9; CEA Reply Comments at 5; CTIA Comments at 25; T-Mobile Reply Comments at 4.

¹⁴² *See* CEA Comments at 11; CEA Reply Comments at 6-7; T-Mobile Reply Comments at 5.

¹⁴³ 47 U.S.C. § 617.

¹⁴⁴ 47 U.S.C. § 619(a). *See* 47 U.S.C. § 610(b)(4)(B).

VII. PROCEDURAL MATTERS

35. *Final Regulatory Flexibility Analysis.* The Regulatory Flexibility Act (RFA)¹⁴⁵ requires that an agency prepare a regulatory flexibility analysis for notice and comment rulemakings, unless the agency certifies that “the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities.”¹⁴⁶ Accordingly, we have prepared a Final Regulatory Flexibility Analysis (FRFA) concerning the possible impact of the rule changes contained in this Second Report and Order on small entities. The FRFA is set forth in Appendix C.

36. *Paperwork Reduction Act of 1995 Analysis.* This document does not contain new or modified information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. Therefore, it does not contain any new or modified information collection burden for small business concerns with fewer than 25 employees, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198.¹⁴⁷

37. *Congressional Review Act.* The Commission will send a copy of this Second Report and Order in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act.¹⁴⁸

38. *Persons with Disabilities.* To request materials in accessible formats (such as Braille, large print, electronic files, or audio format), send an e-mail to fcc504@fcc.gov or call the Consumer and Governmental Affairs Bureau at (202) 418-0530 (voice) or (202) 418-0432 (TTY). This Second Report and Order can also be downloaded in Word and Portable Document Formats (PDF) at <http://www.fcc.gov/encyclopedia/advanced-communications-services-acs>.

39. *Further Information.* For further information, please contact Eliot Greenwald, Consumer and Governmental Affairs Bureau, at 202-418-2235 or eliot.greenwald@fcc.gov, or Rosaline Crawford, Consumer and Governmental Affairs Bureau, at 202-418-2075 or rosaline.crawford@fcc.gov.

VIII. ORDERING CLAUSES

40. Accordingly, IT IS ORDERED that, pursuant to sections 4(i), 303(r), 716, 717, and 718 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(r), 617, 618, and 619, this Second Report and Order IS ADOPTED.

41. IT IS FURTHER ORDERED that Part 14 of the Commission’s Rules, 47 C.F.R. Part 14, IS AMENDED as specified in Appendix B, effective October 8, 2013.

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

¹⁴⁵ See 5 U.S.C. §§ 601-612. The RFA has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

¹⁴⁶ 5 U.S.C. § 605(b).

¹⁴⁷ See 44 U.S.C. § 3506(c)(4).

¹⁴⁸ See 5 U.S.C. § 801(a)(1)(A).

43. IT IS FURTHER ORDERED that the Commission SHALL SEND a copy of this Second Report and Order in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *see* 5 U.S.C. § 801(a)(1)(A).

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A**List of Commenters****Comments**

The Consumer Electronics Association (CEA)

Consumer Groups

Telecommunications for the Deaf and Hard of Hearing, Inc. (TDI)

National Association of the Deaf (NAD)

Hearing Loss Association of America (HLAA)

Association of Late-Deafened Adults, Inc. (ALDA)

Deaf and Hard of Hearing Consumer Advocacy Network (DHHCAN)

Cerebral Palsy and Deaf Organization (CPDO)

CTIA-The Wireless Association (CTIA)

Google, Inc. (Google)

Information Technology Industry Council (ITI)

Microsoft Corporation (Microsoft)

National Cable & Telecommunications Association (NCTA)

Rehabilitation Engineering Research Council on Telecommunications Access (RERC-TA)

Telecommunications Industry Association (TIA)

Voice on the Net Coalition (VON Coalition)

Reply Comments

American Council of the Blind and American Foundation for the Blind (ACB/AFB)

CEA

Consumer Groups

NAD

RERC-TA

TDI

DHHCAN

ALDA

HLAA

California Coalition of Agencies Serving the Deaf and Hard of Hearing (CCASDHH)

CTIA

TIA

T-Mobile USA, Inc. (T-Mobile)

APPENDIX B**Final Rules**

The Federal Communications Commission amends 47 CFR part 14 as follows:

PART 14 – ACCESS TO ADVANCED COMMUNICATIONS SERVICES AND EQUIPMENT BY PEOPLE WITH DISABILITIES

1. The authority citation for part 14 is revised to read as follows:

Authority: 47 U.S.C. 151-154, 255, 303, 403, 503, 617, 618, 619 unless otherwise noted.

Part 14 of Title 47 of the Code of Federal Regulations is amended by adding the following new Subpart E:**Subpart E – Internet Browsers Built Into Telephones Used With Public Mobile Services.****§ 14.60 Applicability.**

(a) This subpart E shall apply to a manufacturer of a telephone used with public mobile services (as such term is defined in 47 U.S.C. § 710(b)(4)(B)) that includes an Internet browser in such telephone that is offered for sale or otherwise distributed in interstate commerce, or a provider of mobile services that arranges for the inclusion of a browser in telephones to sell or otherwise distribute to customers in interstate commerce.

(b) Only the following enumerated provisions contained in this part 14 shall apply to this subpart E.

(1) The limitations contained in section 14.2 of this part 14 shall apply to this subpart E.

(2) The definitions contained in section 14.10 of this part 14 shall apply to this subpart E.

(3) The product design, development and evaluation provisions contained in section 14.20(b) of this part 14 shall apply to this subpart E.

(4) The information, documentation, and training provisions contained in section 14.20(d) of this part 14 shall apply to this subpart E.

(5) The performance objectives provisions contained in sections 14.21(a), (b)(1)(i), (b)(1)(ii), (b)(1)(iii), (b)(2)(i), (b)(2)(ii), (b)(2)(iii), (b)(2)(vii), and (c) of this part 14 shall apply to this subpart E.

(6) All of subpart D of this part 14 shall apply to this subpart E.

§ 14.61 Obligations with Respect to Internet Browsers Built into Mobile Phones.

(a) Accessibility- If on or after October 8, 2013 a manufacturer of a telephone used with public mobile services includes an Internet browser in such telephone, or if a provider of mobile service arranges for the inclusion of a browser in telephones to sell to customers, the manufacturer or provider shall ensure that the functions of the included browser (including the ability to launch the browser) are accessible to and usable by individuals who are blind or have a visual impairment, unless doing so is not achievable, except that this subpart shall not impose any requirement on such manufacturer or provider--

(1) to make accessible or usable any Internet browser other than a browser that such manufacturer or provider includes or arranges to include in the telephone; or

(2) to make Internet content, applications, or services accessible or usable (other than enabling individuals with disabilities to use an included browser to access such content, applications, or services).

(b) Industry Flexibility- A manufacturer or provider may satisfy the requirements of this subpart with respect to such telephone or services by--

(1) ensuring that the telephone or services that such manufacture or provider offers is accessible to and usable by individuals with disabilities without the use of third party applications, peripheral devices, software, hardware, or customer premises equipment; or

(2) using third party applications, peripheral devices, software, hardware, or customer premises equipment that is available to the consumer at nominal cost and that individuals with disabilities can access.

APPENDIX C

Final Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (“RFA”),¹ an Initial Regulatory Flexibility Analysis (“IRFA”) was included in the *ACS FNPRM* in CG Docket No. 10-213, WT Docket No. 96-198, and CG Docket No. 10-145.² The Commission sought written public comment on the proposals in these dockets, including comment on the IRFA. This Final Regulatory Flexibility Analysis (“FRFA”) conforms to the RFA.³

A. Need for, and Objectives of, the Second Report and Order

2. The Second Report and Order implements section 718 of the Communications Act of 1934, as amended (the Act),⁴ which was added by section 104 of the Twenty-First Century Communications and Video Accessibility Act of 2010 (CVAA).⁵ Specifically, section 718(a) requires a mobile phone manufacturer that includes an Internet browser, or a mobile phone service provider that arranges for an Internet browser to be included on a mobile phone, to ensure that the browser functions are accessible to and usable by individuals who are blind or have a visual impairment, unless doing so is not achievable.⁶ Under section 718(b), mobile phone manufacturers or service providers may achieve compliance with or without the use of third party applications, peripheral devices, software, hardware, or customer premises equipment.⁷ Congress provided that the effective date for these requirements is three years after the enactment of the CVAA, *i.e.*, October 8, 2013.⁸

¹ See 5 U.S.C. § 603. The RFA, 5 U.S.C. §§ 601–12, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

² 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 Act of 1934, as Enacted by the Telecommunications Act of 1966; Accessible Mobile Phone Options for People who are Blind, Deaf-Blind, or Have Low Vision*, CG Docket No. 10-213, WT Docket No. 96-198, CG Docket No. 10-145, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 14557, 14677-14692, ¶¶ 279-317 (2011) (*ACS Report and Order and ACS FNPRM*).

³ 5 U.S.C. § 604.

⁴ 47 U.S.C. § 619.

⁵ Pub. L. No. 111-260, 124 Stat. 2751 (2010); Pub. L. No. 111-265, 124 Stat. 2795 (2010) (technical corrections to the CVAA).

⁶ 47 U.S.C. § 619(a). See also House Report at 27 (“The Committee also intends that the service provider and the manufacturer are each only subject to these provisions with respect to a browser that such service provider or manufacturer directs or specifies to be included in the device.”). The CVAA defines “achievable” as “with reasonable effort or expense.” 47 U.S.C. § 617(g). The statute goes on to enumerate a four factor test: (1) the nature and cost of the steps needed to meet the accessibility requirements with respect to the specific equipment or service; (2) the technical and economic impact on the operation of the manufacturer or provider and on the specific equipment or service, including the development and deployment of new communications technologies; (3) the type of operations of the manufacturer or provider; and (4) the extent to which the provider or manufacturer offers accessible services or equipment containing varying degrees of functionality and features, and offered at differing price points. *Id.*

⁷ 47 U.S.C. § 619(b).

⁸ CVAA § 104(b).

3. The Second Report and Order finds that sections 716⁹ and 718 of the Act, which were both adopted by the CVAA, have overlapping requirements. Specifically, section 716 applies to all Internet browsers that are built into equipment and used for advanced communications services (ACS)¹⁰ or that may be required to be installed by ACS equipment manufacturers or providers,¹¹ while section 718 applies only to the discrete category of Internet browsers built into mobile phones used for any purpose (not just to access ACS) by a discrete group of individuals with disabilities, that is, people who are blind or have a visual impairment.¹²

4. The Second Report and Order adopts rules for section 718 that are consistent with the Commission's Part 14 rules implementing section 716.¹³ The obligations of mobile telephone manufacturers and mobile service providers with respect to Internet browsers installed in mobile telephones are consistent with section 718's statutory language, which requires the manufacturer or provider to ensure that the functions of the included browser (including the ability to launch the browser) are accessible to and usable by individuals who are blind or have a visual impairment, unless doing so is not achievable.¹⁴ For the purpose of applying section 718(a),¹⁵ the terms "accessible" and "usable" are defined in the same manner as these terms are applied to entities covered under sections 716(a)(1) and (b)(1).¹⁶ Because section 716(g) defines "achievable" for purposes of both sections 716 and 718,¹⁷ the Second Report and Order defines and applies the term "achievable" to entities covered under section 718 in the same manner as the *ACS Report and Order*.¹⁸ Because sections 716(a)(2) and (b)(2),¹⁹ which are virtually identical to section 718(b),²⁰ allow manufacturers and service providers the flexibility to satisfy the accessibility requirements of sections 716(a)(1), 716(b)(1), and 718(a),²¹ respectively, with or without the use of third party applications, peripheral devices, software, hardware, or customer premises equipment that are available to consumers at nominal cost and that individuals with disabilities can access,²² the Second Report and Order defines and applies the industry flexibility provisions contained in

⁹ 47 U.S.C. § 617.

¹⁰ See *ACS Report and Order*, 26 FCC Rcd at 14584-14585, ¶¶ 67-68.

¹¹ See *ACS Report and Order*, 26 FCC Rcd at 14590, ¶ 85.

¹² 47 U.S.C. § 619(a).

¹³ 47 C.F.R. §§ 14.1 *et seq.* The Commission concluded that the accessibility information pass-through requirement in section 14.20(c) of the Commission's rules is not applicable to Internet browsers because Internet browsers do not "pass through" information to independent downstream devices, software, or applications, as that term is used the Commission's rules. 47 U.S.C. § 617; 47 C.F.R. § 14.20(c). The Commission also declined to apply the information pass-through requirement to entities covered under section 718. 47 U.S.C. § 619.

¹⁴ See 47 U.S.C. § 619(a).

¹⁵ 47 U.S.C. § 619(a).

¹⁶ 47 U.S.C. §§ 617(a)(1) and (b)(1). See *ACS Report and Order*, 26 FCC Rcd at 14605-14606, ¶¶ 114-115; 47 C.F.R. §§ 14.21(b) and (c).

¹⁷ See 47 U.S.C. § 617(g). See note 6, *supra*, for the definition of achievable.

¹⁸ *ACS Report and Order*, 26 FCC Rcd at 14607-14619, ¶¶ 119-148. See also 47 C.F.R. § 14.10(b).

¹⁹ 47 U.S.C. §§ 617(a)(2) and (b)(2).

²⁰ 47 U.S.C. § 619(b).

²¹ 47 U.S.C. §§ 617(a)(1) and (b)(1) and 619(a).

²² 47 U.S.C. §§ 617(a)(2) and (b)(2) and 619(b).

section 718(b)²³ in the same manner as these provisions are defined and applied in the *ACS Report and Order*.²⁴

5. Because section 716 includes specific exemptions for customized equipment or services,²⁵ and gives the Commission authority to waive such requirements for small entities²⁶ and multipurpose services and equipment,²⁷ and section 718 contains no parallel exemption or waiver provisions,²⁸ the Second Report and Order finds insufficient basis to establish similar exemptions and waiver provisions specific to the requirements of section 718. Nevertheless, an entity covered by section 718 could petition for a waiver of the Commission's rules implementing section 718 pursuant to the Commission's general waiver provisions requiring petitioners to show good cause to waive the rules, and a showing that the particular facts of the petitioner's circumstances make compliance inconsistent with the public interest.²⁹

6. The Second Report and Order also addresses whether to require accessibility application programming interfaces (APIs). An API is software that an application program uses to request and carry out lower-level services performed by the operating system of a computer or telephone.³⁰ An accessibility API, in turn, is a specialized interface developed by a platform owner which can be used to communicate accessibility information about user interfaces to assistive technologies.³¹ Because there are various methods to achieve compliance with the section 718 requirements, and there is a need to afford covered entities flexibility on how to comply, the Second Report and Order does not mandate that covered entities include accessibility APIs in mobile phones at this time.

7. Lastly, the Second Report and Order retains the recordkeeping requirements adopted in the *ACS Report and Order* for manufacturers and service providers covered under section 718.³²

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

8. No party filing comments in this proceeding responded to the IRFA in regard to implementation of section 718, and no party filing comments in this proceeding otherwise addressed whether the policies and rules proposed in this proceeding regarding implementation of section 718 would have a significant economic impact on a substantial number of small entities.

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

9. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that face possible significant economic impact by the adoption of proposed

²³ 47 U.S.C. § 619(b).

²⁴ *ACS Report and Order*, 26 FCC Rcd at 14619-14624, ¶¶ 149-157.

²⁵ 47 U.S.C. § 617(i). See *ACS Report and Order*, 26 FCC Rcd at 14630-14633, ¶¶ 170-178; 47 C.F.R. § 14.3.

²⁶ 47 U.S.C. § 617(h)(2). See *ACS Report and Order*, 26 FCC Rcd at 14642-14646, ¶¶ 201-209; 47 C.F.R. § 14.4.

²⁷ 47 U.S.C. § 617(h)(1). See *ACS Report and Order*, 26 FCC Rcd at 15633-14642, ¶¶ 179-200; 47 C.F.R. § 14.5.

²⁸ See 47 U.S.C. § 619.

²⁹ 47 C.F.R. § 1.3. See *Northeast Cellular Telephone Co., L.P. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990) (citing *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969)).

³⁰ See Harry Newton, *Newton's Telecom Dictionary*, 68 (CMP Books, 20th ed. 2004).

³¹ See HTML to Platform Accessibility APIs Implementation Guide, W3C Editor's Draft, June 10, 2011, available at http://dev.w3.org/html5/html-api-map/overview.html#intro_aapi (last visited April 11, 2013).

³² *ACS Report and Order*, 26 FCC Rcd at 14650-14656, ¶¶ 219-230. The recordkeeping requirements are discussed in section D of the Second Report and Order, *infra*.

rules.³³ The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”³⁴ In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.³⁵ A “small business concern” is one that (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.³⁶ Nationwide, there are a total of approximately 27.9 million small businesses, according to the SBA.³⁷

10. *Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing.* The Census Bureau defines this category as follows: “This industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment. Examples of products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment.”³⁸ Manufacturers of telephones used with public mobile services therefore fit within this category. The SBA has developed a small business size standard for Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing, which is all such firms having 750 or fewer employees.³⁹ According to Census Bureau data for 2007, there were a total of 939 establishments in this category that operated for part or all of the entire year.⁴⁰ Of this total, 912 had fewer than 500 employees, 10 had between 500 and 999 employees, and 17 had 1,000 or more employees.⁴¹ Thus, under this size standard, the majority of firms can be considered small.

11. *Wireless Telecommunications Carriers (except satellite).* This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves. Establishments in this industry have spectrum licenses and provide services using that spectrum, such as cellular phone services, paging services, wireless Internet access,

³³ 5 U.S.C. § 604(a)(3).

³⁴ 5 U.S.C. § 601(6).

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

³⁶ 15 U.S.C. § 632.

³⁷ SBA, Office of Advocacy, “Frequently Asked Questions,” <http://www.sba.gov/sites/default/files/FINAL%20FAQ%202012%20Sept%202012%20web.pdf> (last visited April 11, 2013) (figures are from 2010).

³⁸ U.S. Census Bureau, 2007 NAICS Definitions, 334220 Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing, <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=334220&search=2007> (last visited April 11, 2013).

³⁹ 13 C.F.R. § 121.201, NAICS code 334220 (2007 NAICS). See U. S. Small Business Administration, Table of Small Business Size Standards Matched to North American Industry Classification System Codes, http://www.sba.gov/sites/default/files/files/Size_Standards_Table.pdf (last visited April 11, 2013).

⁴⁰ U.S. Census Bureau, American FactFinder, 2007 Economic Census, Establishments by Employment Size, NAICS code 334220, <http://www.census.gov/econ/industry/ec07/a334220.htm> (last visited April 11, 2013).

⁴¹ U.S. Census Bureau, American FactFinder, 2007 Economic Census, Establishments by Employment Size, NAICS code 334220, <http://www.census.gov/econ/industry/ec07/a334220.htm> (last visited April 11, 2013).

and wireless video services.⁴² The appropriate size standard under SBA rules is for the category Wireless Telecommunications Carriers. The size standard for that category is that a business is small if it has 1,500 or fewer employees.⁴³ Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees.⁴⁴ For this category, census data for 2007 show that there were 11,163 firms that operated for the entire year.⁴⁵ Of this total, 10,991 firms had employment of 99 or fewer employees and 372 had employment of 100 employees or more.⁴⁶ Thus under this category and the associated small business size standard, the Commission estimates that the majority of wireless telecommunications carriers (except satellite) are small entities that may be affected by our proposed action.⁴⁷

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

12. *Recordkeeping.* The Second Report and Order retains the recordkeeping requirements adopted in the *ACS Report and Order*, which requires, beginning January 30, 2013, which is one year after the effective date of the *ACS Report and Order*, that each service provider and each equipment manufacturer subject to sections 255, 716, and 718 maintain certain records.⁴⁸ These records document the efforts taken by a manufacturer or service provider to implement sections 255, 716, and 718.⁴⁹ The *ACS Report and Order* adopts the recordkeeping requirements of the CVAA, which specifically include: (1) information about the manufacturer's or provider's efforts to consult with individuals with disabilities; (2) descriptions of the accessibility features of its products and services; and (3) information about the compatibility of such products and services with peripheral devices or specialized customer premise equipment commonly used by individuals with disabilities to achieve access.⁵⁰

13. *Annual Certification Obligations.* The CVAA and the *ACS Report and Order* require an officer of each service provider and equipment manufacturer subject to sections 255, 716, and 718 to submit to the Commission an annual certificate that records are kept in accordance with the above recordkeeping requirements.⁵¹ The certification must be filed with the Consumer and Governmental Affairs Bureau on or before April 1 each year for records pertaining to the previous calendar year.⁵² This Second Report and Order makes no changes to these requirements.

⁴² U.S. Census Bureau, 2007 NAICS Definitions, 517210 Wireless Telecommunications Carriers (except Satellite), <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517210&search=2007%20NAICS%20Search> (last visited April 11, 2013).

⁴³ 13 C.F.R. § 121.201, NAICS code 517210.

⁴⁴ 13 C.F.R. § 121.201, NAICS code 517210. The now-superseded, pre-2007 C.F.R. citations were 13 C.F.R. § 121.201, NAICS codes 517211 and 517212 (referring to the 2002 NAICS).

⁴⁵ U.S. Census Bureau, Subject Series: Information, Table 5, "Establishment and Firm Size: Employment Size of Firms for the United States: 2007 NAICS Code 517210" (issued Nov. 2010).

⁴⁶ *Id.* Available census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with "100 employees or more."

⁴⁷ See U.S. Census Bureau, American FactFinder, http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2007_US_51SSSZ2&prodType=table (last visited April 11, 2013).

⁴⁸ *ACS Report and Order*, 26 FCC Rcd at 14602, 14650-14651, ¶¶ 109, 219-220.

⁴⁹ *ACS Report and Order*, 26 FCC Rcd at 14651, ¶ 220.

⁵⁰ *ACS Report and Order*, 26 FCC Rcd at 14650-14651, ¶¶ 219-220; 47 U.S.C. § 618(a)(5)(A)(i)-(iii).

⁵¹ 47 U.S.C. 618(a)(5)(B); *ACS Report and Order*, 26 FCC Rcd at 14654, ¶ 227.

⁵² *ACS Report and Order*, 26 FCC Rcd at 14654, ¶ 227.

14. *Achievability Analysis.* Section 718(a) of the Act requires that the functions of Internet browsers included in mobile telephones “are accessible to and usable by individuals who are blind or have a visual impairment, *unless doing so is not achievable*. . . .”⁵³ Section 716(g), in turn, defines achievable as meaning “with reasonable effort or expense. . . .”⁵⁴ The statute goes on to provide a four factor test to assess achievability.⁵⁵ Two of the factors—(1) the nature and costs of the steps needed to meet the requirements with respect to the specific equipment or service in question and (2) the technical and economic impact on the operation of the manufacturer or provider and on the operation of the specific equipment or service in question, including on the development and deployment of new communications technologies⁵⁶—specifically take into account the cost of meeting the requirements and the financial resources available to the equipment manufacturer or service provider.⁵⁷ As a result, the initial cost of compliance is to perform the achievability analysis itself, which we estimate to be a small incremental cost when compared to the cost of developing the Internet browser. After the achievability analysis is conducted, the additional cost of making the equipment or service accessible to and usable by individuals who are blind or have a visual impairment is fact specific—it is dependent upon the design of the Internet browser and the accessibility features that are needed. In this regard, because the Internet browser is required to be accessible only if achievable, and because the achievability analysis takes into consideration the cost of providing accessibility as well as the financial resources of the manufacturer or service provider, the requirement to undertake an achievability analysis prevents the accessibility requirements adopted in the Second Report and Order from having a significant economic impact on small entities.

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

15. The RFA requires an agency to describe any significant alternatives it considered in developing its approach, which may include the following four alternatives, among others: “(1) the establishment of differing compliance or certification requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance and certification requirements under the rule for such small entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities.”⁵⁸

16. The Second Report and Order continues and preserves the steps taken in the *ACS Report and Order* to minimize adverse economic impact on small entities. Specifically, the Second Report and Order continues to promote flexibility for all entities in several ways. The rules require covered entities to ensure that Internet browsers included in mobile phones are accessible, unless not achievable. This is a statutory requirement,⁵⁹ therefore no alternatives were considered. However, this requirement has built-in flexibility. All entities, including small entities, may build accessibility features into the product or may rely on third party applications, peripheral devices, software, hardware, or customer premises equipment to meet their obligations under section 718, if achievable.⁶⁰ Achievability is determined through a four factor analysis that examines: (1) The nature and cost of the steps needed to meet the requirements of

⁵³ 47 U.S.C. § 619(a) (emphasis added).

⁵⁴ 47 U.S.C. § 617(g).

⁵⁵ See note 6, *infra*, for a description of the four achievability factors.

⁵⁶ 47 U.S.C. §§ 617(g)(1) and (2).

⁵⁷ See *ACS Report and Order*, 26 FCC Rcd at 14610-14614, ¶¶ 127-135.

⁵⁸ 5 U.S.C. § 603(c)(1)-(c)(4).

⁵⁹ 47 U.S.C. § 619(a).

⁶⁰ 47 U.S.C. § 619(b).

section 716(g)⁶¹ with respect to the specific equipment or service in question; (2) the technical and economic impact on the operation of the manufacturer or provider and on the operation of the specific equipment or service in question, including on the development and deployment of new communications technologies; (3) the type of operations of the manufacturer or provider; and (4) the extent to which the service provider or manufacturer in question offers accessible services or equipment containing varying degrees of functionality and features, and offered at differing price points.⁶² Through this analysis, an otherwise covered entity can demonstrate that accessibility is not achievable. We note that two of the four factors are particularly relevant to small entities: the nature and cost of the steps needed to meet the section 716 requirements and the technical and economic impact on the entity's operations. If achievability is overly expensive or has some significant negative technical or economic impact on a covered entity, the entity can show that accessibility was not achievable as a defense to a complaint. This achievability analysis, therefore, provides a statutorily based means of minimizing the economic impact of the CVAA's requirements on small entities.

17. The rules require covered entities to consider performance objectives at the design stage as early and consistently as possible. This requirement is necessary to ensure that accessibility is considered at the point where it is logically best to incorporate accessibility. The CVAA and the Second Report and Order are naturally performance-driven. The CVAA and Second Report and Order avoid mandating particular designs and instead focus on an entity's compliance with the accessibility requirements through whatever means the entity finds necessary to make its product or service accessible, unless not achievable. This provides flexibility by allowing each entity, including small entities, to individually meet its obligations through what works best for that given entity, instead of mandating a rigid requirement that applies to all covered entities.

18. The Second Report and Order also leaves unchanged the requirements adopted in the *ACS Report and Order* that allow covered entities to keep records in any format they wish, because this flexibility affords small entities the greatest flexibility to choose and maintain the recordkeeping system that best suits their resources and their needs.⁶³ In the *ACS Report and Order*, the Commission found that this approach took into account the variances in covered entities (e.g., size, experience with the Commission), recordkeeping methods, and products and services covered by the CVAA.⁶⁴ Moreover, the Commission found that it provided the greatest flexibility for small businesses and minimized the economic impact that the statutorily mandated requirements impose on small businesses.⁶⁵ Correspondingly, the Commission considered and rejected the alternative of imposing a specific format or one-size-fits-all system for recordkeeping that could potentially impose greater burdens on small businesses.⁶⁶ In addition, the Second Report and Order leaves unchanged the certification requirement, which is also required by the statute.⁶⁷

19. Although section 718 contains no exemption or waiver provisions⁶⁸ comparable to those in section 716,⁶⁹ the Second Report and Order notes that an entity covered by section 718 could petition

⁶¹ 47 U.S.C. § 617(g). This section defines achievability for both section 716 and section 718 of the Act.

⁶² 47 U.S.C. § 617(g).

⁶³ *ACS Report and Order*, 26 FCC Rcd at 14652-14653, ¶ 223.

⁶⁴ *ACS Report and Order*, 26 FCC Rcd at 14653, ¶ 223.

⁶⁵ *ACS Report and Order*, 26 FCC Rcd at 14785, Appendix D, ¶ 119. *See also* 47 U.S.C. § 618(a)(5)(A).

⁶⁶ *ACS Report and Order*, 26 FCC Rcd at 14785, Appendix D, ¶ 119.

⁶⁷ 47 U.S.C. § 618(a)(5)(B).

⁶⁸ *See* 47 U.S.C. § 619.

⁶⁹ Pursuant to sections 716(h)(1) and (2) and 716(i), 47 U.S.C. §§ 716(h)(1) and (2) and 716(i), the *ACS Report and Order* adopted exemptions for customized equipment and services (*ACS Report and Order*, 26 FCC Rcd at 14630- (continued....))

for a waiver of the Commission's rules implementing section 718 pursuant to the general waiver provisions in section 1.3 of the rules, which requires a showing of good cause to waive the rules, as well as a showing that particular facts make compliance inconsistent with the public interest.⁷⁰ Section 1.3 of the rules therefore affords small entities additional compliance flexibility.

F. Federal Rules that May Duplicate, Overlap, or Conflict with Proposed Rules

20. Section 255(e) of the Act, as amended, directs the Architectural and Transportation Barriers Compliance Board (Access Board) to develop equipment accessibility guidelines "in conjunction with" the Commission, and periodically to review and update those guidelines.⁷¹ We view the Access Board's current guidelines⁷² as well as its proposed guidelines⁷³ as starting points for our interpretation and implementation of sections 716, 717, and 718 of the Act, as well as section 255. As such, our rules do not overlap, duplicate, or conflict with either existing or proposed Access Board guidelines on section 255.

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14633, ¶¶ 170-178; 47 C.F.R. § 14.3) adopted a two-year waiver of the ACS requirements for small entities (*ACS Report and Order*, 26 FCC Rcd at 14642-14646, ¶¶ 201-209; 47 C.F.R. § 14.4), and adopted rules for granting waivers multipurpose services and equipment where the primary purpose is not ACS (*ACS Report and Order*, 26 FCC Rcd at 15633-14642, ¶¶ 179-200; 47 C.F.R. § 14.5).

⁷⁰ 47 C.F.R. § 1.3.

⁷¹ 47 U.S.C. § 255(e).

⁷² See Part 1193 of the Access Board Rules, 36 C.F.R. §§ 1120.1 *et seq.*

⁷³ Architectural and Transportation Barriers Compliance Board, *Telecommunications Act Accessibility Guidelines; Electronic and Information Technology Accessibility Standards*, Docket No. 2011-07, Advanced Notice of Proposed Rulemaking, 76 FR 76640, December 8, 2011, found at <http://www.access-board.gov/508.htm> (last visited April 11, 2103).