Before the
Architectural and Transportation Barriers and Compliance Board
Washington, DC 20004-1111

In the Matter of	)	
	)	
Telecommunications Act Accessibility	)	Docket No. 2011-07
Guidelines; Electronic and Information	)	
Technology Accessibility Standards	)	RIN No. 3014-AA37

To: The Board

JOINT COMMENTS OF THE TELECOMMUNICATIONS INDUSTRY ASSOCIATION AND CTIA - THE WIRELESS ASSOCIATION®

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SUMMARY

TIA and CTIA applaud the Access Board for continuing the process of updating and developing its accessibility standards and guidelines for information and communications technology ("ICT") manufacturers and vendors. The Board faces both a challenge and an opportunity because of the explosion of ICT-related devices and products in the marketplace. In this diverse and dynamic market, the Board's task is not to propose regulations covering each and every offering made available, but to recognize and promote providers' own efforts to develop accessible offerings that provide Americans with disabilities the same ICT capabilities as other Americans. The Board should realign the focus of the *ANPRM* and the *Draft Standards & Guidelines* to recognize and embrace the profound effect of the exploding marketplace for accessible ICT equipment by accommodating diverse accessibility solutions.

TIA and CTIA respectfully urge the Board to revise the *Draft Standards & Guidelines* to make clear that the Board's guidelines under Section 255 of the Communications Act are not mandatory rules. Congress left implementation of the Communications Act exclusively to the Federal Communications Commission ("Commission"). Therefore, only the Commission has the authority to implement Section 255 by adopting accessibility rules with binding effect on covered entities. Section 255(e) limits the Board's role to "develop[ing] guidelines for accessibility of" covered equipment "*in conjunction with the Commission*," and the Commission has expressly stated that it is not bound to adopt the Access Board's Section 255 Guidelines as its own, or to use them as minimum standards.

TIA and CTIA also urge the Board to revise the *Draft Standards & Guidelines* to recognize and promote the availability of diverse, alternative accessibility solutions in the ICT marketplace. Since the Board's *2010 ANPRM*, the abundance of customizable accessibility

solutions that have been offered by device manufacturers, wireless service providers and third party applications providers calls into question traditional rationales for prescriptive accessibility regulation. Although the *ANPRM* is significantly improved over the *2010 ANPRM*, further revision is needed to increase the utility of the standards and guidelines:

- The Board should propose goal-oriented functional performance criteria for limited hearing and limited vision, akin to those in the Commission's Section 255 rules, instead of prescribing specific accessibility solutions.

- Where applicable, the Board should strive to link functional performance criteria with measurable technical provisions that can serve as a "safe harbor" for meeting the criteria. Simultaneously, the Board should continue to permit "equivalent facilitation" of accessibility solutions to meet the functional performance criteria.

- The Board should avoid proposing particular technologies or accessibility solutions, such as real-time text, and potentially stifling the development of new accessibility solutions.

- The Board should revise the *Draft Standards & Guidelines* by removing provisions that are likely to become obsolete, such as the provision requiring a tactilely discernible input control for each function of ICT hardware.

- The Board should not apply the WCAG 2.0 standard to platforms, software and other electronic content because the WCAG 2.0 standard was intended only to apply to websites and applications. The Board should carefully consider the factual distinctions among each of these situations before extending the WCAG 2.0 standard beyond its intended application.

By implementing the suggestions that TIA and CTIA offer in these comments, the Board will help ensure that its ICT accessibility standards and guidelines remain current, do not hamper manufacturers' and vendors' continued innovation in the development of accessibility solutions for ICT, and ensure that persons with disabilities have access to a diverse ICT marketplace.

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JOINT COMMENTS OF THE TELECOMMUNICATIONS INDUSTRY ASSOCIATION AND CTIA – THE WIRELESS ASSOCIATION®

The Telecommunications Industry Association ("TIA")[1] and CTIA–The Wireless Association® ("CTIA")[2] hereby file these joint comments on the above-captioned Advance Notice of Proposed Rulemaking ("*ANPRM*") regarding accessibility for information and communication technology ("ICT").[3] In the *ANPRM*, the Architectural and Transportation Barriers Compliance Board ("Access Board" or "Board") requests comment on the associated

[1] TIA is the leading trade association for the information and communications technology industry, representing companies that manufacture or supply the products and services used in global communications across all technology platforms. TIA represents its members on the full range of public policy issues affecting the ICT industry and forges consensus on industry standards. Among their numerous lines of business, TIA member companies design, produce, and deploy a wide variety of devices with the goal of making technology accessible to all Americans. More information is available at www.tiaonline.org.

[2] CTIA – The Wireless Association® is the international organization of the wireless communications industry for both wireless carriers and manufacturers. Membership in the organization covers Commercial Mobile Radio Service ("CMRS") providers and manufacturers, including cellular, Advanced Wireless Service, 700 MHz, broadband PCS, and ESMR, as well as providers and manufacturers of wireless data services and products. More information is available at http://www.ctia.org.

[3] *Telecommunications Act Accessibility Guidelines; Electronic and Information Technology Accessibility Standards*, Advance Notice of Proposed Rulemaking, Docket No. 2011–07, RIN No. 3014–AA37, 76 Fed. Reg. 76640 (Dec. 8, 2011) ("*ANPRM*").

Draft Standards & Guidelines.[4] That document presents draft accessibility standards for ICT that the Board is considering pursuant to Section 508 of the Rehabilitation Act of 1973, as amended[5] ("Section 508 Standards"), and accessibility guidelines for ICT ("Section 255 Guidelines") pursuant to Section 255 of the Communications Act of 1934, as amended (the "Communications Act").[6] As the Board proceeds with updating its Section 508 Standards and Section 255 Guidelines, it should acknowledge the limited scope of its jurisdiction under Section 255. The Board should also ensure that the Section 508 Standards and Section 255 Guidelines reflect the dynamic marketplace for ICT and promote innovation and diversity in the development of accessibility solutions.

INTRODUCTION

TIA and CTIA have long recognized the importance to all Americans of ICT accessibility. TIA and CTIA, and several of their member companies, have been active before the Board for many years, including by serving on the Telecommunications and Electronic and Information Technology Advisory Committee ("TEITAC"), which has advised the Board,[7] and by commenting on the Board's prior proposals regarding ICT accessibility standards and guidelines.[8] In addition to activities before the Board, both TIA and CTIA have acted

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[4] *See* U.S. Access Board, *Information and Communication Technology (ICT) Standards and Guidelines* (Dec. 2011) ("*Draft Standards & Guidelines*"), *available at* http://www.access-board.gov/sec508/refresh/draft-rule.pdf.

[5] 29 U.S.C. § 794d.

[6] 47 U.S.C. § 255.

[7] *See* Telecommunications and Electronic and Information Technology Advisory Committee, *Report to the Access Board: Refreshed Accessibility Standards and Guildelines in Telecommunications and Electronic and Information Technology* (Apr. 2008) ("*TEITAC Report*"), *available at* http://www.access-board.gov/sec508/refresh/report/.

[8] *See Americans With Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Telecommunications Act Accessibility Guidelines; Electronic and Information Technology Accessibility Standards*, Docket No. 2010-1, RIN No. 3014-AA37, 75 Fed. Reg.

independently to promote the development and awareness of ICT accessibility solutions. For example, in 2011, CTIA, in coordination with its member companies and a diverse working group consisting of policy makers and disabilities community advocates, re-launched AccessWireless.Org, a website dedicated to educating individuals with disabilities about the increasing availability of accessible wireless solutions. AccessWireless.Org provides consumers with current information on accessible wireless handsets and services in an easily navigable format.[9]

Likewise, TIA is a member of ANSI-ANS C63 – the Accredited Standards Committee responsible for the development of a diversified set of standards, including those governing methods of measurement of compatibility between wireless communications devices and hearing aids. TIA's Cordless Telephone Hearing Aid Compatibility ("HAC") Working Group coordinates activities related to outreach to the Federal Communications Commission ("FCC" or "Commission") and disability advocates, the creation of a TIA standard to test cordless phones for HAC.

TIA and CTIA applaud the Board for continuing the process of updating and developing the Section 508 Standards and Section 255 Guidelines. Especially with respect to the Section 255 Guidelines, the Board faces both a challenge and an opportunity because of the explosion of ICT-related devices and products in the marketplace. In this diverse and dynamic market, the Board's task is not to propose regulations covering each and every offering made available, but

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13457 (Mar. 22, 2010) ("*2010 ANPRM*"); U.S. Access Board *Draft Information and Communication Technology (ICT) Standards and Guidelines* (Mar. 2010), *available at* http://www.access-board.gov/sec508/refresh/draft-rule2010.pdf.

[9] *See* http://www.AccessWireless.org (last visited Mar. 7, 2012); *see also* Press Release, *FCC Chairman Genachowski Joins Commissioner Copps to Honor Innovators in Accessibility Communications Technologies* (Oct. 28, 2011) *available at* http://www.fcc.gov/document/genachowski-and-copps-present-aaa-awards (awarding CTIA's AccessWireless.Org one of the first Chairman's Awards for Advancement in Accessibility).

to recognize and promote providers' own efforts to develop accessible offerings that provide Americans with disabilities the same ICT capabilities as other Americans.

Innovative ICT products and services are making a tremendous contribution to the ways Americans work, live and play – especially Americans with disabilities. As Congress has observed, modern ICT advances, such as smart phones and global positioning systems, have transformed people's lives, "improv[ing] the communications capabilities of individuals with disabilities."[10]

The ICT industry is dedicated to ensuring that persons with disabilities may share equally in these technological advances by increasing the availability of accessible, innovative products and services to all consumers, including persons with disabilities. The member companies of TIA and CTIA continuously engage in innovation and competition throughout the ICT landscape, to the great benefit of the accessibility community. Indeed, service providers compete to offer service plans and accessible software specifically designed for persons with disabilities,[11] and manufacturers vie to offer a diverse array of products that provide significant ICT accessibility.[12] Accessibility in wireless products is increasing through the availability of

[10] H. Rep. No. 111–563, at 19 (2010); *see also* S. Rep. No. 111–386, at 1 (2010) (noting that digital technologies "offer[] innovative and exciting ways to communicate and share information").

[11] *See, e.g.,* AT&T, *Text Accessibility Plan*, http://www.wireless.att.com/learn/articles-resources/disability-resources/hearing-aid-compatibility.jsp#tap (last visited Mar. 7, 2012); Sprint Relay Data Only Plan, http://sprintrelaystore.com/data_only_plan.htm (last visited Mar. 7, 2012); U.S. Cellular, Messaging: *Messaging-Only Plans*, http://www.uscellular.com/plans/text-only.html (last visited Mar. 7, 2012); T-Mobile, Company Information: *Accessibility Policy*, http://www.t-mobile.com/Company/CompanyInfo.aspx?tp=Abt_Tab_ConsumerInfo&tsp=Abt_Sub_AccessibilityPolicy (last visited Mar. 7, 2012); Verizon Wireless, *Nationwide Messaging Plan with No Voice Minutes*, http://www.verizonwireless.com/b2c/splash/messagingplans.jsp (last visited Mar. 7, 2012).

[12] *See, e.g.*, Android Accessibility Services, http://eyes-free.googlecode.com/svn/trunk/documentation/android_access/services.html (last visited Mar. 7,

"built-in" accessibility features, such as text-to-speech and screen readers, HAC and compatibility with Assistive Technology ("AT"), predictive text, word completion, voice-activated features and closed captioning, as well as through third-party applications.

In the U.S., ICT is no longer in an age where providers mass-produce identical offerings, where one size must fit all. Advances in manufacturing and the increased role of applications and software resident on devices lead to a far greater degree of customization than we ever saw in the past.[13] Popular devices such as Apple's iPhone, Nokia's Series 60 devices, RIM, Ltd.'s Blackberry® and Samsung's Haven offer a plethora of accessibility options for customers. For instance, Apple's iPhone4S, iPhone4, and iPhone 3GS all include VoiceOver, the "world's first gesture-based screen reader" enabling a consumer who is visually impaired to enjoy and use the iPhone.[14] Many Nokia handsets include accessibility features such as voice controls, audible and tactile feedback, and message reading, and Series 60 devices are compatible with optional mobile magnifiers and text-to-speech applications.[15] RIM, Ltd. offers without charge the Clarity

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2012); Apple, Accessibility: *Apple's Commitment to Accessibility*, http://www.apple.com/accessibility/ (last visited Mar. 7, 2012); SAMSUNG's wireless products and accessibility, http://www.samsung.com/us/consumer/learningresources/mobile/accessibility/pop_accessibility.html (last visited Mar. 7, 2012).

[13] For instance, several applications have been developed, at least one of which is currently on the market, that will allow many smartphone and tablet users to enter characters on their touch-screen devices using the Braille writing system. *See* Nick Clayton, *Braille Keyboard Could Benefit the Sighted*, WALL ST. J. (Feb. 20, 2012, 10:20AM GMT), *available at* http://blogs.wsj.com/tech-europe/2012/02/20/braille-keyboard-could-benefit-the-sighted/?blog_id=174&post_id=3892; *see also* Elizabeth Armstrong Moore, *Braille texting app could have broader appeal*, CNET (Feb. 18, 2012, 10:40 AM PST), *available at* http://news.cnet.com/8301-27083_3-57380668-247/braille-texting-app-could-have-broader-appeal/?part=rss&subj=news&tag=2547-1_3-0-20.

[14] Apple, Accessibility, iPhone: *Vision*, http://www.apple.com/accessibility/iphone/vision.html (last visited Mar. 7, 2012).

[15] Nokia, Nokia Accessibility: *Vision*, http://www.nokiaaccessibility.com/vision.html (last visited Mar. 7, 2012).

theme for BlackBerry smart phones, which improves legibility and simplifies the user interface for customers with various visual disabilities.[16] Samsung's Haven incorporates digitally recorded human speech in a clear voice that speaks everything on its display, including caller ID and menu items.[17]

The staff of the FCC's Omnibus Broadband Initiative has noted that the dedicated AT many people with disabilities need to access broadband can be prohibitively expensive but generally available software for wireless devices often yield more efficient and affordable accessibility solutions.[18] As an example, the staff cited one application a consumer can download to their smart phone that allows people with speech and communication disabilities to communicate using natural sounding text-to-speech voices, symbols, and a default vocabulary. The price of the software is about $200, whereas, a dedicated Augmentative and Alternative Communication device can cost $8,000 or more.[19] In some cases, dedicated accessibility

[16] RIM, Ltd., Smartphone Support: *BlackBerry Accessibility*, http://us.blackberry.com/support/devices/blackberry_accessibility/#tab_tab_overview (last visited Mar. 7, 2012).

[17] *See* Tara Annis & Morgan Blubaugh, *An Accessibility Review of the Verizon Haven Cell Phone*, American Foundation for the Blind AccessWorld®, http://www.afb.org/afbpress/pub.asp?DocID=aw110704 ("The Haven succeeds in offering a simple, lower-cost accessible solution for anyone looking for a basic cell phone.") (last visited Mar. 7, 2012).

[18] *See* Elizabeth Lyle, *A Giant Leap & A Big Deal: Delivering on the Promise of Equal Access to Broadband for People with Disabilities,* Omnibus Broadband Initiative Working Paper Series, FCC, 6 (April 2010) *available at* http://download.broadband.gov/plan/fcc-omnibus-broadband-initiative-%28obi%29-working-report-giant-leap-big-deal-delivering-promise-of-equal-access-to-broadband-for-people-with-disabilities.pdf.

[19] *Id.* at 8.

applications may also be offered by wireless service providers or manufacturers in order to encourage persons with disabilities to adopt these innovative technologies.[20]

The foregoing accessibility solutions are but a few examples of the ease of customization that characterizes today's ICT industry. Indeed, the abundance of customizable accessibility solutions that are currently offered by device manufacturers, wireless service providers and third party applications providers undercuts traditional rationales for prescriptive accessibility regulation.

Federal agencies have recognized this ease of customization – including the diversity, efficiency and convenience it affords to federal workers – by introducing "bring your own device" ("BYOD") programs. Through BYOD initiatives, federal employees are authorized to use their personal handsets and mobile devices to help perform their official duties. Studies indicate that 62% of agencies have a BYOD policy, allowing employees to use their own mobile devices at work.[21] Federal agencies must have the flexibility to accommodate a variety of accessibility solutions to permit their BYOD programs to function successfully.

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[20] *See* Press Release, *Sprint Launches Code Factory Mobile Accessibility Application for Free to Android Users Who are Blind or Have Low Vision* (Feb. 29, 2012) *available at* http://newsroom.sprint.com/article_display.cfm?article_id=2194 *and* Press Release, *Introducing AT&T Mobile Accessibility Lite, Free Application to Enhance Android Experience for People Who are Blind or Have Low Vision* (Oct. 3, 2011) *available at* http://www.att.com/gen/press-room?pid=21494&cdvn=news&newsarticleid=32969.

[21] *See* Elizabeth Montalbano, *Feds To Employees: Use Your Own Devices At Work*, INFORMATIONWEEK (Feb. 7, 2012, 3:43 PM), *available at* http://www.informationweek.com/news/government/mobile/232600428; *see also* Press Release, MeriTalk, *Half of Federal IT Professionals Agree: PC Alternatives are Key to Productivity* (Feb. 27, 2012), *available at* http://www.meritalk.com/pdfs/Mobile_Powered_Government_Release.pdf (finding that "Federal mobile tablet use will near triple by 2013" and that "Federal agencies are increasingly allowing employees to use personal mobile devices for work").

Therefore, as a fundamental matter, the Board should realign the focus of the *ANPRM* and the *Draft Standards & Guidelines* away from prescriptive solutions to recognize and embrace the profound effect of the exploding marketplace for accessible ICT equipment by accommodating diverse accessibility solutions.

In these comments, TIA and CTIA provide concrete suggestions for refocusing the *ANPRM* and the *Draft Standards & Guidelines* to recognize and promote diverse innovation in ICT accessibility solutions. TIA and CTIA urge the Board to adopt these changes when it issues its proposed rule seeking further public comment in this proceeding.[22] Further public comment is essential prior to adoption of a final set of Section 508 Standards and Section 255 Guidelines.

DISCUSSION

I. THE DRAFT STANDARDS & GUIDELINES SHOULD REFLECT THE BOARD'S LIMITED ROLE UNDER SECTION 255

A. Section 255 Limits the Board to Developing Guidelines

As an initial matter, Subsection C101.1 of the *Draft Standards & Guidelines*[23] should be revised to reflect the important but limited role the Board has to prescribe accessibility requirements under Section 255 of the Communications Act.[24] The Board's role under Section 255 is limited to developing guidelines, *in conjunction with the Commission*, regarding

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[22] *See ANPRM*, 76 Fed. Reg. at 76640.

[23] *See Draft Standards & Guidelines* at 17, § C101.1 ("Compliance with these standards is mandatory for telecommunications manufacturers pursuant to the Telecommunications Act of 1996 (47 U.S.C. 255).")

[24] 47 U.S.C. § 255(e) (emphasis added). Sections 255(b) and (c) of the Communications Act require that manufacturers of customer premises equipment ("CPE") and telecommunications equipment, and telecommunications service providers, ensure that their products and services, respectively, are "accessible to and usable by individuals with disabilities, if readily achievable." *See* 47 U.S.C. §§ 255(b), (c).

accessibility of covered telecommunications services equipment.[25] The Commission has exclusive authority to implement Section 255 by adopting accessibility rules with binding effect on covered entities except where otherwise indicated. [26]

Thus, the Board's Section 255 Guidelines apply only to telecommunications equipment and are non-binding.[27] As the Commission explained in adopting its Section 255 implementing regulations:

> While we acknowledge the Access Board's expertise in identifying the access requirements of persons with disabilities in a comprehensive manner, we find that the Commission would not be bound to adopt the Access Board's guidelines as its own, or to use them as minimum standards, if it were to conclude, after notice and comment, that such guidelines were inappropriate. Typically, unless otherwise provided by statute, "guidelines" are distinct from rules and, like a general statement of policy or procedure, are not considered to have the force and effect of law.[28]

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[25] *See Implementation of Sections 255 and 251(a)(2) of the Communications Act of 1934, as Enacted by the Telecommunications Act of 1996; Access to Telecommunications Service, Telecommunications Equipment and Customer Premises Equipment by Persons with Disabilities*, Report and Order and Further Notice of Inquiry, 16 FCC Rcd 6417, 6426 ¶ 13 (1999) ("*FCC Section 255 Order*"); In the *FCC Section 255 Order*, the Commission adopted rules to implement those and other provisions of Section 255. Considerations relevant to a "readily achievable" analysis are clearly the Commission's, not the Board's, responsibility. *See FCC Section 255 Order* at 6439-40 ¶¶ 47-48 (interpreting factors relevant to "readily achievable" analysis and finding that "[i]f our experience enforcing this statute persuades us that including some other considerations may prove beneficial, we will, at a later time, consider including them."); *see id.* at 6444 ¶ 63 ("manufacturers and service providers are not required to incorporate accessibility features that are technically infeasible"). *see also* 47 U.S.C. § 255(f) (granting the Commission "exclusive jurisdiction with respect to any complaint under this section").

[26] *See Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967, 980 (2005) (noting that "Congress has delegated to the Commission the authority to 'execute and enforce' the Communications Act . . ."); 47 U.S.C. §151 (creating "a commission to be known as the 'Federal Communications Commission' … which shall execute and enforce the provisions of this Act."); *see also id*. §§ 154(i), 201(b).

[27] *See id.* at 6426-27 ¶¶ 14-15.

[28] *See id.* at 6427 ¶ 15 (1999).

The Board's Section 255 responsibilities also are far more limited than its authority to promulgate standards under Section 508. Sections 508 and 255 serve different purposes and are governed by different statutory frameworks. Section 508 is more expansive with respect to both the products covered and the Board's implementation role. Section 508 applies to "electronic and information technology," as defined consistent with "section 5002(3) of the Clinger-Cohen Act of 1996 (40 U.S.C. 1401(3))."[29]

Unlike the Board's Section 255 Guidelines, its Section 508 Standards have direct legal consequences. Section 508 directs the Board, in relevant part, to "issue and publish standards setting forth . . . the technical and functional performance criteria necessary" to meet Section 508's accessibility requirement.[30] Federal agencies, in "developing, procuring, maintaining, or using" electronic or information technology, *must* comply with the Board's Section 508 Standards unless doing so would impose an undue burden on the agency. The Board's Section 508 Standards thus have binding effect on the Federal agencies, in contrast to the Board's non-binding Section 255 Guidelines.[31]

Although TIA and CTIA recognize that the Commission plans to consider the Board's Section 255 guidelines, when finalized, for possible use in its accessibility rules governing Advanced Communications Services ("ACS"), adopted pursuant to Section 716 of the Communications Act,[32] we remind the Board that the Section 255 guidelines apply to

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[29] *See* 29 U.S.C. § 794d(a)(1)-(2).

[30] *See id.* § 794d(a)(2)(A).

[31] The Board's authority under Section 508 is not unbounded. Section 508 "undue burden" considerations are ultimately subject to case-by-case determinations by individual federal agencies.

[32] *See* 47 U.S.C. § 617; *see also Implementation of Sections 716 and 717 of the Communications Act of 1934, as Enacted by the Twenty-First Century Communications and Video Accessibility*

"telecommunications services and [CPE],"[33] not ACS equipment or services. Therefore, the Board should not consider the application of the Section 255 guidelines beyond their intended scope of telecommunications equipment and CPE.

B. The Board Should Revise the Draft Guidelines to Reflect its Statutory Role

In light of the Board's important, but limited, role with regard to the Section 255 Guidelines, the Board should make clear that the Section 255 Guidelines are not mandatory rules but guidelines to industry and the Commission alike. TIA and CTIA thus recommend that Subsection C101.1 of the *Draft Standards & Guidelines*[34] should be modified to read as follows:

> **C101.1 Purpose.** This document contains scoping, performance, and technical guidelines for making telecommunications equipment and customer premises equipment accessible to and usable by individuals with disabilities. The Access Board provides these guidelines to the Federal Communications Commission and the public pursuant to Section 255(e) of the Communications Act of 1934, as amended (47 U.S.C. § 255(e)).

This revised provision more accurately reflects the Board's authority regarding the Section 255 Guidelines. As discussed below, the Board can then turn its attention to the functional performance criteria that are the principal components of the *Draft Standards & Guidelines*.

II. THE DRAFT STANDARDS & GUIDELINES SHOULD RECOGNIZE AND PROMOTE THE AVAILABILITY OF ALTERNATIVE ACCESSIBILITY SOLUTIONS IN THE ICT MARKETPLACE

TIA and CTIA agree with the Board that the *ANPRM* is significantly improved over the *2010 ANPRM* and commend the Board for seeking to improve the readability and usability of the

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Act of 2010, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 14557, 14562 ¶ 10, 14567 ¶ 23 (2011) ("*FCC ACS Order*").

[33] *See* 47 U.S.C. § 255(e).

[34] *See Draft Standards & Guidelines* at 17, § C101.1.

Draft Standards & Guidelines.[35] However, the guidelines can be further improved to recognize that the pace of innovation in the mobile space is unprecedented in the history of ICT development. Since the Board's *2010 ANPRM*, the device and applications markets have changed dramatically, giving all consumers, including persons with disabilities, access to products and services that were unimaginable just a few years ago. The Board must recognize the accelerated pace of innovation in the ICT ecosystems, and do everything in its power not to hamper or limit the continued development of products and services that would improve the lives of persons with disabilities.

Accordingly, further substantive refinement is needed to improve the Board's guidance and to ensure that the *Draft Standards & Guidelines* are not rapidly rendered obsolete by the changing marketplace for ICT. As we discuss in greater detail in response to the *ANPRM*'s specific questions below:

- The Board should not prescribe specific accessibility solutions, but should provide functional performance criteria for manufacturers and vendors to implement accessibility solutions.
- The Board should strive to link functional performance criteria with measurable technical provisions that can serve as "safe harbors" for compliance, while continuing to permit "equivalent facilitation" of accessibility solutions.

[35] *See ANPRM*, 76 Fed. Reg. at 76645 ("*Question 1:* As discussed above, in response to public comments, the Board has made significant changes to the 2010 ANPRM by consolidating, streamlining, and removing provisions and advisories to improve readability, comprehensibility, and usability. The Board seeks comment on this new approach.").

- The Board should not apply the Web Content Accessibility Guidelines 2.0 ("WCAG 2.0") standard[36] to platforms, software and other electronic content because the WCAG 2.0 standard was intended only to apply to websites and applications. The Board should carefully consider the factual distinctions among each of these situations before extending the WCAG 2.0 standard beyond its intended application. [37]

TIA and CTIA are concerned that the prescriptive approach in much of the *Draft Standards & Guidelines* unjustifiably intervenes in ICT market development. The future will almost certainly turn out differently than the Board's very specific, and untested, vision for many accessibility features. The Board should not attempt to dictate the future of these features.

A. The Functional Performance Criteria for Limited Hearing and Limited Vision Should Not Prescribe Specific Accessibility Solutions

In response to Question 3 of the *ANPRM*,[38] the Board should not require specific accessibility solutions for limited vision (as in current Subsection 302.2 of the *Draft Standards &*

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[36] W3C®, Web Content Accessibility Guidelines (WCAG) 2.0 (Dec. 11, 2008) ("WCAG 2.0"), *available at* http://www.w3.org/TR/WCAG20/.

[37] In this regard, the Board should make use of the full flexibility afforded by WCAG 2.0 and not restrict the use of "conforming alternate versions" of agency websites. *See ANPRM*, 76 Fed. Reg. at 76645 (Question 5). "Conforming alternate versions" of websites are permitted under WCAG 2.0, as the ANPRM acknowledges. *See id*. This is an example of providing covered entities – in this case the Federal agencies – reasonable flexibility to provide an accessibility solution. Of course, agencies may choose to deploy only one website for efficiency purposes and to realize cost savings.

[38] *See ANPRM*, 76 Fed. Reg. at 76645 ("*Question 3:* In the discussion above, the Board has changed the approach to the functional performance criteria for limited hearing (302.5) and limited vision (302.2) in the 2011 ANPRM to require three specific features to be provided. These features may be provided either directly or through the use of assistive technology. The Board requests information on whether the features listed in these functional performance requirements will provide accessibility to users with limited vision or hearing, or whether there are other features which should be required in addition or instead. What are the costs and benefits associated with requiring the three features?").

Guidelines[39]), for limited hearing (as in Subsection 302.5[40]), or for any other functional performance criteria. Instead, TIA and CTIA recommend that the Board adopt goal-oriented functional performance criteria for limited vision and limited hearing akin to those in the Commission's Section 255 rules. For example, for limited vision,

> Provide visual information through at least one mode to users with visual acuity between 20/70 and 20/200 without relying on audio.[41]

For limited hearing,

> Provide audio or acoustic information, including any auditory feedback tones that are important for the use of the product, through at least one mode in enhanced auditory fashion (*i.e.,* increased amplification, increased signal-to-noise ratio, or combination).[42]

As a general matter, to provide meaningful Section 255 guidance to telecommunications equipment manufacturers, the Board should adopt functional performance criteria that establish accessibility *goals* for the various types of disabilities without specifying or favoring particular *solutions*. By doing so, the Board will better recognize that superior alternative solutions may become available in the marketplace that will provide accessibility for end users in innovative and highly useful ways.

This goal-oriented approach is also highly relevant in the Section 508 setting. As federal agencies implement BYOD programs for their employees, goal-oriented functional performance criteria also recognize that federal agencies and their employees will be relying on a variety of accessibility solutions when using diverse forms of ICT.

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[39] *See Draft Standards & Guidelines* at 27, § 302.2.

[40] *See id.* § 302.5.

[41] 47 C.F.R. § 6.3(a)(2)(ii).

[42] *Id*. § 6.3(a)(2)(v).

B. Where Applicable, Functional Performance Criteria Should Be Supported by Measurable Technical Provisions, But Equivalent Facilitation Should Continue to be Permitted

In response to Question 4 of the *ANPRM* [43] and consistent with the *TEITAC Report*,[44] the Board should seek to associate functional performance criteria with measurable technical provisions that provide broadly accepted means of determining whether a functional performance criterion has been satisfied. Thus, when the Board adopts a functional performance criterion, it should (a) avoid prescribing a specific technical solution, as discussed above, (b) when possible, provide a related measurable technical provision to serve as a "safe harbor" on which parties can (but are not required to) rely to determine whether they have satisfied the criterion, and (c) continue to permit "equivalent facilitation" of accessibility solutions as provided in Subsection C101.2 of the Draft Standards & Guidelines.[45]

As an example, for the functional performance criterion governing Limited Hearing, one of several possible alternative technical provisions could be the following modification of current Subsection 402.3.2,[46] regarding Speaker Volume:

> Where sound can only be delivered through speakers on ICT, incremental volume control is to be provided with output amplification up to a level of at least 65 dB. A function is to be provided to adjust the volume to a lower level.

This technical provision is measurable – ICT suppliers, federal agencies, and users can readily determine whether a specific type of ICT has speakers with an output amplification of at least 65

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[43] *See ANPRM*, 76 Fed. Reg. at 76645 ("*Question 4:* As noted above, the 2011 ANPRM has changed the relationship between the functional performance criteria and the technical provisions (E204.1). The Board seeks comment on the proposed approach requiring conformance with the functional performance criteria at all times, even when the technical provisions are met. What are the costs and benefits associated with this approach?").

[44] *See TEITAC Report*, *supra* note 7.

[45] *See Draft Standards & Guidelines* at 17, § C101.2.

[46] *See id.* at 30, § 402.3.2. In its present form, Subsection 402.3.2 is overly prescriptive because it requires specific features associated with speaker volume.

dB and an adjustable volume control. In the *Draft Standards & Guidelines*, existing Subsections 409.1.1[47] and 502.3.2[48] are other examples of measurable technical provisions.

If an accessibility solution satisfies the applicable technical provisions, it should be deemed to satisfy the associated functional performance criterion. In many cases, if ICT providers satisfy well-crafted, measurable technical provisions, highly accessible ICT should result without forcing providers to resort to subjective evaluation of functional performance criteria. Linking functional performance criteria with measurable technical provisions is particularly useful in the Section 508 standard context, because it could simplify accessibility evaluations for agencies and ICT vendors using the federal procurement process.

However, to encourage innovation and flexibility in accessibility solutions, ICT manufacturers and vendors should be permitted to demonstrate that they have satisfied the functional performance criteria through means other than the technical provisions, consistent with the "Equivalent Facilitation" provision of the *Draft Standards & Guidelines*.[49]

The "equivalent facilitation" principle permits ICT manufacturers and vendors to innovate in providing accessibility solutions. Because of the dynamic marketplace for ICT, there

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[47] *See id.* at 35, § 409.1.1 ("Decoding of Closed Captions to Open Captions. Where audio-visual players and displays process video with synchronized audio information, players and displays shall decode closed caption data and pass on an open-captioned signal to the video display." (emphasis omitted)).

[48] *See id.* at 38, § 502.3.2 ("No Disruption of Accessibility Features. Applications shall not disrupt platform features that are defined in the platform documentation as accessibility features." (emphasis omitted)).

[49] *See id.* at 17, § C101.2:

> **C101.2 Equivalent Facilitation.** The use of an alternative design or technology that results in substantially equivalent or greater access to and use of data and information by individuals with disabilities than would be provided by conformance to a requirement in Chapters 4 through 6 of this document is permitted. The functional performance criteria in Chapter 3 shall be used to determine whether substantially equivalent or greater access to and use of data and information [are] provided to individuals with disabilities.

may be ICT with innovative accessibility solutions that satisfy functional performance criteria even though measurable technical provisions do not apply, do not exist, or are of limited utility. Likewise, future innovators may develop creative *new* ways to achieve accessibility solutions. In such cases, if the device or service satisfies functional performance criteria but not the specific technical provisions, or if such provisions do not exist, the device or service should be deemed accessible.

C. The Board Should Avoid Locking Manufacturers Into Particular Technologies or Accessibility Solutions

The Board must recognize the accelerated pace of innovation in the ICT ecosystems, and do everything in its power not to hamper or limit the continued development of products and services that would improve the lives of persons with disabilities. TIA and CTIA caution, in response to Question 6,[50] that the *ANPRM* includes unwarranted assumptions about multiple ICT features, inadvertently running the risk of stifling the development of new accessibility solutions. Consistent with our response to Question 3 above, TIA and CTIA urge the Board to reexamine the *Draft Standards & Guidelines* to avoid picking "winners and losers" among accessibility solutions. Our concern is that by being overly prescriptive, the Board's guidelines will either fail

[50] *See ANPRM*, 76 Fed. Reg. at 76645-46 ("*Question 6:* As noted above, Chapter 4 addresses features of ICT which may be used to communicate or produce electronic content or retrieve information or data. Some of the sections addressing these features of ICT include but are not limited to: Two Way Voice Communication (408), Operable Parts (407), and Standard Connections (406). The Board seeks comment on whether it should provide additional provisions to address accessibility concerns associated with features of ICT, such as content displayed on small screens, which are not otherwise addressed. For example the Board is considering whether to allow an exception to subsection 402.4 for text size for ICT which has a smaller screen. Should the Board require a minimum or maximum screen size to display content? Should a minimum text size be specified for display on a screen? When ICT communicates or produces electronic content or retrieves information or data, are there additional unique limiting features that are not adequately addressed in these provisions, such as screen and text size and battery life, which the Board should address?").

to reflect the ICT marketplace or unnecessarily influence it, potentially resulting in less innovation in accessibility solutions.

For example, real-time text ("RTT"), which is discussed extensively in Subsection 408.6,[51] is one of several forms of text services that are developing steadily in today's ICT marketplace. Modern mobile services, especially those using Long Term Evolution ("LTE") technology, are being designed to include text services, including RTT, that will enable consumers to communicate directly with next generation 911 ("NG911") Public Safety Answering Points ("PSAPs"). The 3rd Generation Partnership Project ("3GPP") is developing international standards that will facilitate the provision of RTT and other non-voice communications to PSAPs over LTE networks.

In light of this widespread industry activity regarding RTT and other text services, TIA and CTIA urge the Board not to act prematurely by specifying RTT as a preferred accessibility solution, as Subsection 408.6 appears to do. Rather, the Board should permit the standards process and the marketplace to determine the types of text-based services that best serve ICT users.[52] Accordingly, the Board should not specify interoperability standards between RTT systems, especially when the underlying feature is still being developed.[53]

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[51] *See Draft Standards & Guidelines* at 34-35, § 408.6.

[52] At present, it is not clear that ICT users prefer RTT over other text-based communication alternatives. The exercise of governmental restraint has resulted in the market for other forms of messaging services naturally evolving and growing. For example, Short Message Services ("SMS") was once an intra-network and proprietary service but has naturally progressed, due to the light regulatory approach coupled with industry leadership, to become the ubiquitous interoperable text messaging service we know today. *See, e.g., Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services*, Ninth Report, 19 FCC Rcd 20597, 20661 ¶ 157 (2004).

[53] For example, in contrast to the RTT proposals of the *ANPRM*, it may well be easier to build RTT as an independent application available on multiple platforms and through the Web rather than to have it be built into devices and then made interoperable.

In addition, as the Board notes, when mobile ICT communicates or produces electronic content or retrieves information or data, there are additional unique limiting features, such as screen and text size and battery life.[54] The Board should recognize that today's dynamic mobile marketplace is working well to maximize the utility of these features to all consumers, including people with disabilities. In particular, with respect to ICT such as mobile devices with small screen sizes, the Board should rethink its approach to text size requirements, now rigidly specified in Subsection 402.4.[55] Rather than applying the "Band-Aid" of allowing an exception to Subsection 402.4 as discussed in the *ANPRM*, the Board should adopt a more flexible, but testable, approach. For example, the Board could provide guidance regarding the representation of text in arc seconds across a screen rather than prescribing fixed character sizes, or develop functional performance criteria linked with measurable technical requirements whenever possible.

D. The Draft Standards & Guidelines Should Be Revised to Avoid Premature Obsolescence

In response to Questions 7 and 8 of the *ANPRM*,[56] TIA and CTIA again urge the Board to avoid prescribing specific accessibility solutions, such as tactilely discernible input controls,

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[54] *See ANPRM*, 76 Fed. Reg. at 76645-46 (Question 6).

[55] *See Draft Standards & Guidelines* at 30, § 402.4.

[56] *See ANPRM*, 76 Fed. Reg. at 76646 ("*Question 7*: The 2011 ANPRM has retained the approach of addressing features of ICT which make the ICT accessible and usable to individuals with disabilities. Are there some features or technologies addressed in the ANPRM that are obsolete or that have changed in a way that makes the proposed requirements irrelevant or difficult to apply? If so, commenters should recommend revisions to those section(s) of the ANPRM that should be updated, and, if possible, recommend specific changes that would address the needs of individuals with disabilities and the unique characteristics of the technology concerned."); *id.* ("*Question 8*: Some modern touch screen devices, such as versions of some smartphones and tablets, have proved popular with people who are blind, despite not having keys which are tactilely discernible. Should the provision requiring that input controls be tactilely discernible (407.3) be revised to allow for such novel input methods? Should the Board add an exception to 407.3 to allow for input controls which are not tactilely discernible when access is

that would inadvertently stifle the development of innovative accessibility solutions. By avoiding specific accessibility prescriptions, the Board will help ensure that its standards and guidelines avoid premature obsolescence. This is particularly important because of the lengthy process that the Board undergoes when it seeks to update its standards and guidelines. The Board should revise the *Draft Standards & Guidelines* by modifying provisions that would specify specific features or technologies.

Subsection 407.3 is an example of a prescription made in the *ANPRM* that already verges on obsolescence:

> **407.3 Tactilely Discernible.** At least one tactilely discernible input control shall be provided for each function. Where provided, key surfaces not on active areas of display screens shall be raised above surrounding surfaces. Where touch or membrane keys are the only method of input, each key shall be tactilely discernible from surrounding surfaces and adjacent keys.[57]

This provision presumes incorrectly that tactilely discernible keys are the only means of providing accessible input controls for users with visual impairments – an assumption that simply does not comport with reality. As the Board itself recognizes, "modern touch screen devices . . . have proved popular with people who are blind, despite not having keys which are tactilely discernible."[58] In fact, even at the time of the *2010 ANPRM*, accessible interfaces that relied on touch and gesture were already available on popular mobile handsets.

To account for the fact that many individuals who are blind or have impaired vision prefer to use touch screen devices over devices with tactilely discernible keys, the Board should revise the *Draft Standards & Guidelines* to acknowledge and permit such use. TIA and CTIA

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provided in another way? If so, how should access be addressed when the controls are not tactilely discernible? Should a particular technology or method of approach be specified?").

[57] *See Draft Standards & Guidelines* at 31–32, § 407.3.

[58] *See ANPRM*, 76 Fed. Reg. at 76646 (Question 8).

suggest that the Board consider adopting the following language: "When touch or gesture are the only method of input, ICT shall not rely on visual information alone or audio information alone to provide feedback to the user." Adopting a goal-oriented provision such as the foregoing would help ensure that touch screen devices are "accessible to and usable by" the blind and visually impaired, without locking manufacturers into particular technologies and consequently depriving the blind and visually impaired of the use of such innovative devices.

More broadly and fundamentally, the Board should examine and redraft the *Draft Standards & Guidelines* to make sure that they comport with and account for the accessibility features already in the marketplace. In doing so, the Board will avoid adopting standards and guidelines that would become of little or no utility due to premature obsolescence.

E. The Board Should Not Force Application of the WCAG 2.0 Standard onto Situations for Which It Is Not Designed

In response to Question 9 of the *ANPRM*,[59] TIA and CTIA caution the Board not to apply WCAG 2.0 to scenarios for which it is not intended. WCAG 2.0 "covers a wide range of recommendations for making Web content more accessible."[60] However, it is designed to improve accessibility for websites and web applications, and not, for example, platforms, software, and other electronic content, such as electronic documents and applications, outside of the web browser environment. The *Draft Standards & Guidelines* acknowledge that WCAG 2.0

[59] *See ANPRM*, 76 Fed. Reg. at 76646 ("*Question 9*: As discussed above, the subsection for WCAG 2.0 conformance (E207.2) for user interface components and content of platforms and applications is intended to set a single standard for user interfaces, without regard to underlying rendering mechanisms, such as web browsers, operating systems, or platforms. Is applying the WCAG 2.0 Success and Conformance criteria to electronic documents and applications outside the web browser environment sufficient and clear to users, or should the Board provide further clarification? Are there other accessibility standards more applicable to user interface components and content of platforms and applications than WCAG 2.0 that the Board should reference?").

[60] WCAG 2.0, Abstract.

is directed to web content, but state that "it is straightforward to apply the WCAG 2.0 Success Criteria and Conformance Requirements to all electronic content."[61] Although the principles that govern WCAG 2.0 may be broadly applicable, the Board should not apply the WCAG 2.0 Success and Conformance criteria to areas for which WCAG 2.0 is not designed. At the most basic level, WCAG 2.0 expressly uses the term "Web page" in many of its success criteria, and the Board should not simply rely on these criteria in situations that do not involve Web pages. For example:

- WCAG 2.0 Success Criterion 2.4.5 provides that "[m]ore than one way is available to locate a Web page within a set of Web pages except where the Web Page is a result of, or a step in, a process,"[62] and indicates that an individual should have the option of navigating to a web page either directly or via a search engine.[63] Applying this success criterion to an electronic document, such as a photo stored on a personal mobile device, as the *Draft Standards & Guidelines* appears to do in Subsection C203.1,[64] makes no sense, because, typically, a user may not navigate to non-web content by means of a search engine.
- WCAG Success Criterion 3.2.3 provides that "[n]avigational mechanisms that are repeated on multiple Web pages within a set of Web pages occur in the same relative order each time they are repeated, unless a change is initiated by the

[61] *See, e.g.*, *Draft Standards & Guidelines* at 24, Advisory C203.1.

[62] WCAG 2.0 § 2.4.5.

[63] *See* W3C®, Multiple Ways: Understanding SC 2.4.5, *Understanding WCAG 2.0* (2012), *available at* http://www.w3.org/TR/UNDERSTANDING-WCAG20/navigation-mechanisms-mult-loc.html.

[64] *See Draft Standards & Guidelines* at 23, § C203.1 ("Regardless of the medium or the method of transmission and storage, electronic content integral to the use of ICT covered by C201.1 shall conform to Level A and Level AA Success Criteria and Conformance Requirements specified for web pages in WCAG 2.0 (incorporated by reference in Chapter 1)").

user."[65] This criterion is intended "to encourage the use of consistent presentation and layout for users who interact with repeated content within a set of Web pages."[66] Application of this WCAG criterion to web content makes sense, because websites are comprised of "a set of Web pages." However, in the context of other forms of software and electronic content (*e.g.*, applications), this success criterion does not readily apply because a website has no equivalent in this context.

As these examples demonstrate, WCAG 2.0 was not intended to apply to platforms, software, and electronic content other than web content. If the Board were to impose the WCAG 2.0 standard on situations outside its intended scope without careful consideration of its applicability, confusion would result for ICT manufacturers, vendors, and federal agencies alike. Each would be left with the puzzling task of determining whether or how to apply the WCAG 2.0 success criteria to user interfaces outside of the web context. The Board therefore should apply WCAG 2.0 to scenarios outside the standard's intended scope only after careful consideration of the factual differences of the proposed scenarios.

[65] WCAG 2.0 § 3.2.3.

[66] W3C®, Consistent Navigation: Understanding SC 3.2.3, *Understanding WCAG 2.0* (2012), *available at* http://www.w3.org/TR/UNDERSTANDING-WCAG20/consistent-behavior-consistent-locations.html.

CONCLUSION

TIA and CTIA request that the Board adopt the foregoing recommendations in revising the Section 508 Standards and Section 255 Guidelines.

Respectfully submitted,

CTIA – THE WIRELESS ASSOCIATION®

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