

Comments to the US Access Board on the Proposed Information and Communication Technology (ICT) Standards and Guidelines

Thank you for the opportunity to provide comments on the proposed standards and guidelines for information and communication technology (ICT). We look forward to updated standards that are internationally harmonized and can be consistently and accurately applied to modern ICT. Please find below are comments to specific questions that the Board asked for comments on. In addition, we have provided additional comments regarding the proposed rule.

Response to Question 7

Should the Board restrict the use of conforming alternate versions beyond the explicit requirements of WCAG 2.0? The Board requests that responses be provided in the context of the WCAG definition for conforming alternate versions

The Board should strengthen this requirement. In the current Section 508, an alternative version could only be used if the standard version could not be made accessible. The WCAG conformance requirements do not have a similar mechanism to prevent authors from choosing alternatives without meeting a threshold of achievability. That is, under WCAG conformance requirements an author could choose to create an alternative version simply because they didn't want to make the main content accessible.

Response to Question 10

Are there net benefits to be derived from requiring more standards addressing multimedia than what we propose? The Board is requesting that telecommunication equipment manufacturers, in particular, provide any data regarding potential costs related to complying with the standards in EN 301 549 6.3.3(c). Are there suggestions for other standards which would result in the same level of accessibility?

The referenced section EN 301-549 6.3.3 number does not exist in the current version of the standards (1.1.2 2015-4)

Response to Question 14

Is the scope of public facing content covered by proposed E205.2 sufficiently clear? Are there other issues the Board should consider in defining the scope of the term "public facing"?

There is some ambiguity on third party content such as social media and collaborative environments that agencies have control over using or not and the requirements for alternatives to this content. The only place that social media is mentioned in the proposed rule is under the definition of public facing. In the major issues section of the

report associated with the proposed rule it discusses non-public content including social media. This implies that social media would be covered under the agency official communication electronic content requirements, however, many social media sites which are outside of direct government control are not accessible. Some agencies have taken stances to require that government sites provide the same mission critical information on their site in addition to social media postings. It would be helpful to have some guidance from The Board on this matter including discussion of public and non-public facing social media content and collaborative environments that are used for internal use.

Response to Question 15

Question 15. The Access Board requests data or other information from telecommunications equipment manufacturers regarding the potential costs and benefits of incorporating WCAG 2.0 by reference and applying its success criteria to both web and non-web environments.

The current Section 255 standards can be met through meeting functional requirements by combining accessible design practices with accessibility features of products such as high contrast, magnification or using nominal cost assistive technology. The addition of WCAG success criteria for web pages and software means that specific technical requirements now have to be met. This in effect moves the Section 255 requirements away from the model used by the FCC's CVAA requirements and moves them to Section 508's technical approach. The FCC under CVAA was specifically forbidden by congress to implement technical requirements and thus implemented functional performance objectives which allow for nominal cost assistive technology and third party products that can facilitate meeting the access needs of users with disabilities without specifying technical requirements. While we support technical standards, a more robust set of functional performance objectives may be needed in situations where technical standards cannot or decidedly will not be met. For example, prior Section 255 functional standards includes checks for timing, flashing, etc. When these checks were moved into the technical requirements of the proposed rule they were removed from the functional side of the rule. This has potential consequences when the technical standards aren't used.

Response to Question 17

Question 17. Some commenters raised concerns with proposed 302.2 With Limited Vision. They recommended that the Board establish thresholds for how much magnification, reduction, or contrast is sufficient to meet the provision. Should proposed 302.2 be more specific, and if so, what should the thresholds be? Please cite a scientific basis for in-~~threshold~~ recommendations.

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This update raises additional questions -- what criteria do you use to determine the field of vision required for user control -- e.g. controls and labels must be in close proximity. That is, does this criteria require that form labels and fields appear in the 20 degree field of vision based (legal blindness based on fields) on a standard monitor size and resolution from a standard viewing angle. To what extent is user control over contrast met -- providing one contrast option? The criteria doesn't even specify that it has to be a high contrast option. For example, light gray on gray, medium gray on gray and dark gray on gray found in a common Office product are all different levels of contrast although for most people with low vision they are unreadable. Contrast requirements with likely require that all text and images text have at least a 4.5:1 contrast ratio in the accessible contrast scheme and there should be at least two themes, light on dark and dark on light.

Response to Question 18

Question 18. In the final rule, the Board is considering incorporating by reference the requirements for VMS in ICC A117.1-2009—or its successor ICC A117.1-2015, if the standard has been finalized by that time—in order to make such signs more accessible to individuals who are blind or have low vision. ... If VMS cannot be speech enabled, should the Board require VMS to, at least, be accessible to people with low vision?

Yes, variable message signs (VMS) should be at least made accessible to people with low vision. Consideration should be done to explore auditory access.

Response to Question 20

Question 20. Some industry commenters to the 2011 ANPRM suggested that the Board permit concave—as well as raised—key surfaces. What would be the impact on accessibility if proposed 407.3.1 instead prohibited key surfaces outside the active area of the display screen from being flush with surrounding surfaces?

Devices such as the iPhone use concave buttons that are accessible to people who are blind (e.g. the home button). This button is tactilely discernable. The language should be changed as is suggested to prohibit keys from being flush with surrounding surfaces to allow flexibility of concave controls.

Response to Question 21

Question 21. Should the requirements for reach height in proposed 407.12 apply to ICT subject to the 255 Guidelines, such as, for example, routers attached to racks? The Board asks that telecommunications equipment manufacturers provide information on the costs of such a requirement. Are there alternative

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ways of making these components accessible? We welcome comments on suggested approaches.

It would appear that the situation would be similar to the Section 508 exception for maintenance spaces. Thus a similar exception would seem harmonized with this particular situation. While we fully support access to all user facing controls by people with disabilities the specific case described appears likely be maintenance only placement of routers and not customer facing.

Response to Question 23

Question 23. Should the Board add a requirement that the viewing angle of display screens be adjustable to permit wheelchair users or persons of small stature to see the entire viewable area of such screens and minimize glare? Are there other characteristics of display screens that would make them more viewable to persons who use wheelchairs or other mobility aids?

The Board must also consider access of screens such as those used with hardware devices such as copy machines, kiosks, and other point of sale when used by people with low vision. One area that I did not see address as the implication of screen tilt and height for people with low vision. Screen placement and the tilt in relations to lighting and glare can have a huge impact on access by people with low vision. I've run into some situations where screens are too far away and other instances where they were too low to the ground requiring a person with low vision to sit on the ground in order to see the screen. The Board should make sure that these standards related to screen position provide customizable and equitable access to all people with disabilities.

Response to Question 25

Question 25. Are there requirements in proposed Exception 3 to 409.1 sufficiently clear? Proposed Exception 3 would exempt itineraries, maps, or other visual images that are provided on ticketing machines from being required to be presented in an audible format. This exception is proposed in recognition of the technical challenges posed by audible presentation of visual images.

Itineraries are generally a text description of starting locations, destinations, and times which may include routes, terminals, gates, etc. Itineraries are generally not images. Confirmation of itineraries are very important for people who are blind or visually impaired. It is not clear why itineraries are exempted from this requirement. Itineraries should ideally not be exempted.

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Additional Comments

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WCAG Incorporation by Reference

Clarify in Chapter 5 that WCAG applies to software in addition to the standards listed in this chapter. People who jump directly to Chapter 5 will likely miss the reference from Chapter 2.

Interoperability and User Preferences

The proposed rule indicates that some software that operates within a sandboxed environment within the platform such as plug-ins like Java and Flash and media players are exempt from some of the user preferences for accessibility. However, it's not clear what standards will be required for these types of software to be accessible to people with disabilities. Specifically, platform settings to adjust color, fonts, etc. are not covered yet there does not appear to be a fallback requirement like there is in the current section 508 to provide a variety of color and contrast settings to assist users who require high contrast. This is an area where we need clarity from the Board regarding a specific number of contrast options and ratios. Without action people with disabilities may be denied access to platforms such as media players and plugins.

Additional interoperability requirements surround the use of applications programming interfaces (API)s. APIs are agreed upon methods of communication between software such as a platform or app and an assistive technology. The proposed rule has increased the requirements not only requiring an API be used to expose information to assistive technology but that it also allow assistive technology to control the user interface through the API. That is AT may be required to programmatic set and change values and add events hooks to watch for changes in the application. This is very good news for users of assistive technology however it raises some questions that need to be answered.. For example, what constitutes an API, is the document object model (DOM) of a webpage considered an API? What if certain features such as setting and controlling an app are not supported in current accessibility APIs? Would not keyboard interface support permit the same benefit to users with disabilities?

Use of Standards that Must be Purchased

It appears that 6 out of the 10 voluntary consensus standards do not require purchase. 3 additional standards organizations have said they would make available upon request during the comment period and 1 of the standards PDF/UA to this point must be purchased to access within or outside of the comment period.

The use of standards that must be purchased raises certain challenges The Board should consider. For example, organizations must purchase the standard in order to determine whether they meet the standard. This can increase the cost for organizations selling into the government. In addition, organizations that make tools or platforms that manage accessibility (e.g. AMP) will need to reference the standards in their products.

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Functional Performance Criteria

The proposed rule does not require use of the functional performance criteria unless a specific feature is not addressed by the technical standards or if a product substantially provides equivalent or greater access to people with disabilities without meeting the technical requirements.

If the goal of meeting the technical requirements is to ensure access by people with disabilities then the functional performance criteria should be met if the technical requirements are met -- if not the outcome based test falls back on the FPC anyway. Thus, it is our recommendation that the functional performance criteria apply in addition to the technical requirements.

Section 302.7 With Limited Manipulation states

Where a manual mode of operation is provided, ICT shall provide at least one mode of operation that does not require fine motor control or operation of more than one control at the same time.

The outcome based criteria does not fully dress the needs of people with motor and dexterity impairments. For example, a touch screen based control that requires twisting would pass this requirement because it only requires one control, yet the twisting motion may likely be impossible for many people with motor impairments such as challenges with dexterity. Another example is pinch zoom gestures which requires one hand but two fingers. Such a gesture may not be possible for someone with a prosthetic. This functional performance criteria should be updated to reflect the outcomes necessary to support access to features that require pinching and grasping similar to Section 407.9. Implications of the criteria in touch environment should be taken into consideration.

The updated functional performance criteria for people who are hard of hearing states:

302.5 With Limited Hearing. Where an auditory mode of operation is provided, ICT shall provide at least one mode of operation that improves clarity, one mode that reduces background noise, and one mode that allows user control of volume.

It's not clear what steps are needed to increase clarity and reduce background noise -- that is the reduction of background noise of the system itself such as in a multimedia production or background noise from the environment. Clarity would presumably mean high definition audio but it could also mean TTS options for audio cues, etc. Having more information regarding testing steps and example situations and solutions would assist people complying with this criteria.

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Chapter 4 hardware which includes locked down systems under the term "closed functionality" requires Braille instructions to turn on audio. While we applaud the requirement for Braille -- many devices such as mobile phones can be closed systems and thus Braille would be required on mobile phones and even desktops that were locked down. The Board should consider how to limit this requirement to devices such as those used in public spaces to balance the need for Braille in the practical impact of adding it to all closed devices.

Contrast for Operable Parts

Section 407.2 indicates that contrast for operable parts must be provided via light on dark or dark on light characters but does not define a contrast ratio. Thus, the term light or dark is subjective and materially has limited utility. Similarly, while there is a contrast requirement for operable parts there is no contrast requirement for indicators such as icons or text that shows what a light/LED indicates. This requirement should be updated to reflect measurable criteria for contrast for operable controls and indicators.

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