



About the Proposed Refresh of the Section 508 Standards and Section 255 Guidelines for Information and Communication Technology

This overview highlights provisions in the Access Board's proposed update of its accessibility requirements for information and communication technology covered by Section 508 of the Rehabilitation Act and Section 255 of the Communication Act. The Board's published proposal discusses in greater detail provisions of the rule.

Proposed Rule

The Access Board is proposing to revise and refresh its standards for electronic and information technology in the federal sector covered by Section 508 of the Rehabilitation Act of 1973 and its guidelines for telecommunications equipment issued under Section 255 of the Communications Act of 1934. The Board is updating both documents jointly to ensure consistency in accessibility across the spectrum of information and communication technologies (ICT) covered.



Goals of the Refresh

The Board is updating its 508 Standards and 255 Guidelines so that they adequately address accessibility and keep pace with the ever-changing nature of the technologies covered. This refresh is responsive to fundamental changes, innovations, and trends in the industry, such as the widespread convergence of technologies. As a result, this rulemaking proposes replacement of product-specific requirements with enhanced functional-based criteria due to the increasingly multi-functional capabilities of various products such as smart phones. Through this update, the Board also seeks to harmonize its requirements with various voluntary consensus standards, including the Web Accessibility Initiative's Web Content Accessibility Guidelines (WCAG).

Technologies Covered

The Board's Section 508 Standards, which were issued in 2000, apply to electronic and information technology developed, procured, maintained, or used by federal agencies. Examples include computers, telecommunications equipment, multifunction office machines, software, websites, information kiosks and transaction machines, and electronic documents. The Section 255 Guidelines were first published in 1998 and cover telecommunications equipment and customer premises equipment, including telephones, cell phones, pagers, fax machines, computers with modems, interconnected Voice over Internet Protocol products, and equipment carriers use to provide services, such as a phone company's switching equipment.

How the Proposed Rule was Developed

The Board initiated this update by chartering an advisory committee to review the existing 508 Standards and 255 Guidelines and to recommend changes. The 41 members of the Telecommunications and Electronic and Information Technology Advisory Committee (TEITAC) comprised a broad cross-section of stakeholders representing industry, disability groups, and government agencies. Its membership also included representatives from the European Commission, Canada,



Australia, and Japan. The Advisory Committee addressed a range of issues, including new or convergent technologies, market forces, and international harmonization and submitted its report to the Board in April 2008. It also recognized the importance of standardization across markets worldwide and coordinated its work with standard-setting bodies in the U.S. and abroad, such as the World Wide Web Consortium (W3C), and the European Commission.

In 2010, the Board released for public comment a draft of the proposed rule that was based on the committee's report. It followed up with a revised draft in 2011 that also was made available for comment. The current proposed rule is based on the advisory committee's recommendations and incorporates public feedback on the earlier draft proposals.

Structure of the Proposed Rule

The proposed rule includes parallel chapters that separately address application and scoping of the Section 508 Standards and the Section 255 Guidelines (Chapters 1 and 2). These sections reference functional performance criteria (Chapter 3), technical requirements for hardware and software (Chapters 4 and 5), and criteria for support documentation and services (Chapter 6). The functional performance criteria of Chapter 3 are outcome-based provisions that address accessibility relevant to disabilities impacting vision, hearing, color perception, speech, manual dexterity, reach, and strength. The functional performance criteria are to be used where a technical requirement is silent or to determine whether an alternative means of compliance is sufficient under the provision of equivalent facilitation. The Board's proposal includes a discussion or "preamble" that explains requirements of the rule, summarizes major issues, provides regulatory and legislative background, poses questions to the public on a variety of issues where specific information is sought, and includes instructions for submitting comment.

Major Revisions

The proposed rule includes significant changes that would:

- incorporate the WCAG 2.0 and apply associated success criteria to websites as well as to offline electronic documents and software;
- require real-time text functionality (text that is transmitted character by character as it is being typed) for products providing real-time, two-way voice communication;
- specify the types of non-public facing electronic content covered; and
- further detail the required compatibility of covered technologies, including operating systems, software development toolkits, and software applications with assistive technology.

Incorporation of the Web Content Accessibility Guidelines (WCAG)

The proposed rule incorporates by reference the WCAG 2.0 and applies it not only to websites but also to off-line documents and software in order to enhance accessibility and uniformity and to simplify conformance and assessment. WCAG 2.0 is technology-neutral and its success criteria can be applied to any web-based technology and, with few changes, to non-web documents and software as well.

The benefits of applying the WCAG 2.0 in this manner are significant. WCAG 2.0 addresses new technologies and recognizes that the characteristics of products, such as native browser behavior and plug-ins and applets, have converged over time. Smart phones, for example, now routinely include software applications and operating systems, web-based intranet and Internet information and



applications, and video and multimedia products. Further, federal agencies are obligated to use voluntary consensus standards over government-issued standards wherever possible. Applying WCAG 2.0 will promote international harmonization as it is also referenced by, or underpins, standards in Australia, New Zealand, Canada, Japan, Germany, and France, as well as those recently issued by the European Commission. Consistent use of one established set of criteria like the WCAG 2.0 will help accelerate the spread of accessibility and promote uniformity.

Other Referenced Standards

In addition to the WCAG 2.0, the proposed rule also references a number of other voluntary consensus standards for consistency and clarity. Standards are referenced to address:

- ergonomics for the design of accessible software (ANSI/HFES 200.2, Human Factors Engineering of Software User Interfaces)
- interference to hearing aids by wireless telephones (ANSI/IEEE C63.19-2011, American National Standard for Methods of Measurement of Compatibility between Wireless Communications Devices and Hearing Aids)
- handset generated audio band magnetic noise of wire line telephones (TIA 1083, Telephone Terminal Equipment Handset Magnetic Measurement Procedures and Performance Requirements)
- speech quality in digital transmissions (ITU-T Recommendation G.722, General Aspects of Digital Transmission Systems, Terminal Components, 7 kHz Audio-Coding within 64 kbits/s)
- carrying real-time text conversation session contents (RFC 4103, RTP Payload for Text Conversation)
- TTY signals on the public switched telephone network interfaces (TIA 825-A, A Frequency Shift Keyed Modem for Use on the Public Switched Telephone Network)
- audio description by digital television tuners (A/53 Digital Television Standard, Part 5: AC-3 Audio System Characteristics)
- accessible PDF files (ISO 14289-1, Document management applications — Electronic document file format enhancement for accessibility — Part 1: Use of ISO 32000-1 (PDF/UA-1))
- Keypad arrangement (ITU-T Recommendation E.161: Arrangement of digits, letters and symbols on telephones and other devices that can be used for gaining access to a telephone network)

Real-Time Text (RTT)

When the 508 Standards and 255 Guidelines were first published, TTYs were the most common text-based system for communicating within a voice communication system. Today, a variety of text-based communication methods are available due to technological advances. Real-time text (RTT) technology, an emerging method, transmits text in near real-time as each character is typed, rather than as a block of text after the entire message is completed. RTT is important as an equivalent alternative to voice communications for persons who are deaf, or who have limited hearing or speech impairments. It allows the recipient to read the sender's text as soon as it is entered, thus making RTT more conversational and interactive, in a manner similar to a telephone conversation. RTT can be particularly useful in an emergency situation when speed and accuracy of a message—or even a partial message—are critical. The proposal would require RTT functionality for products providing real-time, two-way voice communication, consistent with the advisory committee report. Such products would be required to support RTT either within a closed system or outside a network. The Board has posed a number of questions about the technical requirements and referenced standards that should apply to RTT.

Coverage of Electronic Content (508 Standards)

The proposed rule, consistent with the existing 508 Standards, requires a federal agency's public-facing content to be accessible, including websites, documents and media, blog posts, and social media sites. Broad coverage of such content is necessary to ensure that people with disabilities have equal access to electronic information and data made available to the public generally. The proposed rule also clarifies the types of internal or non-public electronic content that must comply and specifies concrete, testable technical requirements. In addition to public-facing content, compliance would be required for a federal agency's electronic content that constitutes agency official business or that falls within any of these categories: emergency notifications; initial or final decisions adjudicating administrative claims or proceedings; internal or external program or policy announcements; notices of benefits, program eligibility, employment opportunities or personnel actions; formal acknowledgements or receipts; questionnaires or surveys; templates or forms; and educational or training materials.

Coordination with the European Commission

In recognition of the global reach of the IT marketplace and the significant benefits of international harmonization, the Board has coordinated this refresh with the European Commission's development of ICT accessibility standards. Last year, the European Commission adopted the "Accessibility requirements for public procurement of ICT products and services in Europe" (EN 301 549 V1.1.1 (2014-02)) which is available for use by European government officials as technical specifications or award criteria in public procurements of ICT products and services. The Board's proposed rule is consistent with the Commission's standards. Harmonization with international standards and guidelines promotes greater accessibility worldwide, enhances uniformity, and heightens market incentives for integrating accessibility into information and communication technology.



Public Comment on the Proposed Rule

The Board seeks public comment on the proposed rule as well as a preliminary assessment of its estimated benefits and costs. The Board welcomes comment on any aspect of the proposal but is particularly interested in responses to the more than 40 questions on various topics it has posed throughout the preamble discussion that accompanies the proposed text. The rule includes instructions on submitting comments which are due in 90 days. In addition, the Board will hold public hearings on the proposed rule that provide another venue for submitting comment:

March 5, 9:30 to 11:30
Manchester Grand Hyatt Hotel, Mission Beach A & B
One Market Place
San Diego, CA

March 11, 9:30 to 11:30
Access Board Conference Center
1331 F Street NW, Suite 800
Washington, DC



The Board also will review the proposed rule in a webinar on March 31 from 1:00 – 2:30 (ET). Further details and registration will be available at www.adaconferences.org/CIOC/.

Next Steps

The Board will proceed to finalize the rule based on its review of public comments. Following publication of the final rule, the Federal Acquisition Regulatory Council (FAR Council) and federal agencies must incorporate the revised 508 Standards into their respective acquisition regulations and procurement policies and directives within six months as stipulated by the Rehabilitation Act.

The Federal Communications Commission (FCC) is responsible for enforcing the Communications Act and has issued regulations that contain requirements based on the Board's original Section 255 Guidelines. The updated 255 Guidelines will similarly be available for the FCC's use in its enforcement of the Communications Act.



Further Information

For further information on this rulemaking, visit the Board's website at www.access-board.gov or contact Timothy Creagan at (202) 272-0016 (v), (202) 272-0074 (TTY), or 508@access-board.gov.

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February 2015