Accessibility and Accommodations Handbook

United States Department of Justice

Office of the Chief Information Officer

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Revision History

Date	Version	Description of Version
April 2016	1.0	Document first published.
March 2018	2.0	Document updated to incorporate the Revised Section 508 Standards based on the January 18, 2018 final rule that updated accessibility requirements covered by Section 508, and refreshed guidelines for telecommunications equipment. Formatting edits also included.

1. Introduction

1.1 Purpose

The purpose of this handbook is to:

- Assist Department of Justice (DOJ) employees in understanding the standards and applicability of Section 508 of the Rehabilitation Act of 1973 (Section 508), and to
- Provide guidance for ensuring information and communication technology (ICT) that is developed, procured, maintained, or used is accessible and usable by individuals with disabilities either directly or by supporting the use of assistive technology.

Compliance with these standards are mandatory for all federal agencies including the Offices, Boards, and Divisions, and Bureaus of the Department of Justice. The Handbook can also assist employees with disabilities and their managers understand what ICT accommodations are available and how to obtain those accommodations.

1.2 Overview

Section 508 requires all federal agencies to ensure that:

- Federal employees with disabilities have access to and use of information and data that is comparable to the access to and use of the information and data by Federal employees who are not individuals with disabilities; and
- Members of the public with disabilities who are seeking information or data from a Federal agency have access to and use of information and data that is comparable to the access provided to members of the public who are not individuals with disabilities.

To ensure awareness of, and compliance with Section 508 requirements, Department of Justice Order 0902, *Accessible Information and Communication Technology* established the Department's policy for complying with the requirements stipulated by Section 508 of the Rehabilitation Act.

On January 18, 2018, revisions and updates to Section 508 of the Rehabilitation Act of 1973 requirements and regulations took effect. These revisions reorganize the accessibility standards by functionality instead of product type and harmonizes U.S. and international standards. Additionally, the update includes significant changes for agencies, including:

- Requiring agencies to identify the needs of users with disabilities for all ICT, specifically how users with disabilities will perform the functions supported by ICT and how developed, installed, configured, and maintained ICT will support users with disabilities;
- Adding additional documentation requirements and information to justify best meets, undue burden, or fundamental alternation exceptions, including providing an agency plan for how individuals with disabilities can access and use information/data by alternative means for identified needs; and
- Expanding the functional performance criteria to include "Without Perception of Color," and "With Limited Language, Cognitive, and Learning Abilities." These criteria apply when the revised/current Section 508 requirements do not adequately cover the functionality of ICT.

The content of this Handbook address these updated regulations.

1.3 Organization

This handbook contains information, details, references, and best practices organized around common accessibility activities, including:

- Accessible electronic documents (Section 2),
- Planning for and conducting accessible meetings (Section 3),
- Procuring and documenting Section 508 compliance in procurement requests (Section 4),
- Video and multimedia (Section 5),
- Configuring telecommunications and other equipment to be accessible (Section 6),
- Building accessible software applications and web pages (Section 7),
- Requesting ICT accommodations (Section 8), and
- Notification of Accessibility Issues (Section 9).

1.4 Audience

The audience for this document includes:

- Department employees and contractors who create electronic documents, multi-media files, and other information products and records of decisions, policy, or agency operations regardless of file format.
- Developers of websites, applications, and systems that are public or internal facing.
- Installers of electronic equipment, such as desktop computers, servers, mobile devices, copiers and so forth;
- Requiring Officials - anyone that develops requirements for information and communication technology including software applications, web content, hardware, electronic documents, support services, electronic and communication equipment;
- Procurement Officials - anyone that purchases ICT including software applications, web content, hardware, electronic documents, support services, electronic and communication equipment;
- Meeting Planners – anyone hosting a meeting where persons with disabilities may be present;
- Employees, Managers, and Senior Executives requiring ICT reasonable accommodations.

2. Accessible Electronic Documents

Electronic documents must have a structure that enables assistive technology products to gain access to their content.

By adhering to accessibility requirements, you are providing a document that allows individuals with disabilities to gain access to information in a comparable way as their peers without disabilities. This section of the Handbook lists recommendations for delivering accessible electronic documents.

2.1 Types of Documents

The audience for this section are those who create or edit electronic content using applications for word processing, e-mail, presentations, spreadsheets, as well as other types of documents (e.g., PDF). This includes content that is:

- Public facing,
- That serves as an official agency communication, including

- An emergency notification;
- An initial or final decision adjudicating an administrative claim or proceeding;
- An internal or external program or policy announcement;
- A notice of benefits, program eligibility, employment opportunity, or personnel action;
- A formal acknowledgement of receipt;
- A survey questionnaire;
- A template or form;
- Educational or training materials; or
- Intranet content designed as a Web page.

Please note – Section 504 of the Rehabilitation Act requires that electronic documents sent to a person with a disability must be accessible.

2.2 Word Processing Documents and Emails

Below is a checklist of a few baseline rules to consider when creating an accessible document in a word processer or in an email application.

- Filenames should identify the document or its purpose.
- Use the Styles, Heading features.
- Avoid skipping heading levels (i.e., Heading 1 comes before Heading 2 then Heading 3 etc.).
- Information conveyed through sensory characteristics (such as color, size, shape, and location) must also be provided in text.
- Ensure links make sense out of context.
    - Example of link in context: "Department-wide resources on Section 508 are available on the Section 508 page of DOJNet."
- All images require alternate text describing the information conveyed through that image.
- Identify the header row for data tables.
- Ensure there is enough contrast between colors of the letters and the background colors.
- Any information contained within headers, footers or watermarks must be contained at least once within the main content of the document.
- When creating lists, format using the Bullet or Numbering Library.
- Use paragraph spacing "before" and "after" to create blank spaces between paragraphs and lines of text rather than pressing the "Enter" key to increase the space between lines of text.
- Avoid using small font sizes.
- Do not use flash at or above 3Hz.

In addition to the list above, use the following checklist for email messages:

- Subject lines should be meaningful.
- Use the HTML format when sending messages with attached documents. This will place the document ID of an attached file within the heading of the message rather than embedded within the text of the message.

2.3 Adobe PDF Documents

The audience for this section is the person creating or remediating a document using the portable document format (PDF). Ensure the following when creating or remediating an accessible PDF document.

- Filenames should identify the document or its purpose.
- Documents must include an identified language within the document "Properties" field.
- Scanned paper documents are not inherently compliant and will require remediation even after undergoing Optical Character Recognition (OCR).
- The document must be a tagged PDF.
    - Assistive technology applications ignore content not tagged in a PDF.
    - The Assistive Technology Resource Center has guidance on tagging PDFs (located under Quick Links entitled Acrobat XI Accessibility Guide).
- Content must be in a logical reading order.
- Document headings must include a tag as a heading and match the visual outline level.
- Images must have meaningful alternative text.
- Decorative text and objects must be set as Artifacts or not tagged.
- Ensure links make sense out of context.
- Information contained within a header or footer should appear only once within a document.
- Tag the first row of a data table as the header row.
- Use "Tool Tips" for all form fields.
- Ensure there is enough contrast between colors of the letters and the background colors.

3. Accessible Meetings

The audience for this section is the Meeting Planner.

When planning a meeting or conference, the organizer must provide reasonable accommodations for individuals with disabilities. It is a best practice to include contact information to request a reasonable accommodation when announcing the meeting or event. The announcement or meeting invitation should include a timeframe for requesting the accommodation(s). This enables the host to ensure that the appropriate accommodation is available.

It is critical that Meeting Planners ensure their events are accessible to people with disabilities. Registration materials and forms should ask attendees to identify their reasonable accommodation requirements. Examples of types of accommodations include Sign Language Interpreter, Real Time Captioning (CART) services, Translation Listening System, Print documents in Large Font, or other services. The DOJ Assistive Technology Resource Center is available to answer questions related to planning an accessible meeting.

Pre-event communications, including promotional and registration materials, should disclose if there are any plans for your event to include flash photography, strobe lights, loud or amplified noise or music, or fireworks. Theatrical fog, chemical air fresheners, and other smells added to a venue can make them inaccessible to those with multiple chemical sensitivities or other intolerances.

Every component of the event should be accessible to ALL participants. Any pre- or post- event optional tours, recreation, or activities should be inclusive as well. Meeting Planners must disclose in advance if there are any optional meeting activities not accessible to all audiences.

It is a good practice to distribute accessible electronic copies of the agenda, and all printed materials prior to the event and encourage attendees to bring copies with them to the meeting.

If offering captioning services, the Meeting Planner must consult closely with the captioning provider to ensure all conditions necessary for success are in place prior to the meeting. Allow plenty of time before the meeting to confirm that all components have been set up and are working properly. Be sure to send the captioning service copies of the agenda, slide presentations, and a list of topic related words and phrases to the participants.

Some types of reasonable accommodations that are common for meetings include:

- Large Print,
- Braille,
- Audio on CD,
- Text-Only,
- Electronic Files on Flash Drive (formats may include PDF, Word, Text, and Excel),
- American Sign Language,
- Transcripts,
- Captioning, and
- Assistive Listening Devices.

Please contact the Assistive Technology Resource Center for examples of and best practices for conducting accessible meetings.

4. Procuring Accessible Technology and Services

The audience for this section is the Requiring Official – the person that has the business need to purchase hardware, software, office and communication equipment (i.e., copiers) or ICT services – as well as the Contracting Official and Cardholder.

It is critical that you read this section if you are about to acquire any type of ICT – service, software, hardware, telecommunications. As per the law, the products and services that you acquire must conform to specific Section 508 standards that allow for comparable access and use by any individual with a disability. It is especially important for procured ICT conform to accessibility standards; as such standards are explicitly enforceable by legal action through contract bid protests.

All of the following types of acquisitions require Section 508 compliance:

- Government charge card purchases,
- Any contract action including task and delivery orders,
- New contracts,
- Purchase of equipment and software under a service contract, and
- Service, documentation, and support agreements.

Section 508 conformance is required at the time of delivery or work order as well as during maintenance or upgrades and during support services, but not necessarily during repairs. Products undergoing maintenance, upgrade, repair, or support will require an additional Section 508 review only if such work changes the machine design or operator interface of the ICT equipment. For services, Requiring Officials, Contracting Officers and Cardholders must ensure that any repairs do not adversely affect the accessibility of the product under repair. In fact, some upgrades may actually improve accessibility. Examples of the applicability of Section 508 to ICT services include:

- Software maintenance and upgrades, such as antivirus software, would require the same conformance to Section 508 as the original product even if not explicitly written into an original contract.
- During a maintenance process with point of sales machines, the Post Office has devices at the counter in some locations that enable people who are blind to enter their PIN independently during a transaction, even if they cannot use a touch screen. A determination found that Section 508 standards applied to the new component even if the older parts of the system pre-dated Section 508 and were not fully accessible.
- A manufacturer has an upgrade to scanner software for use with the scanner; a review determined that the new software was ICT, which prompted a Section 508 conformance inquiry.
- Contractors and vendors are required to make available written system and equipment manuals as well as other product documentation in other media that is accessible to individuals with a disability, i.e., audible manuals.

The following subsections provide information and details regarding the eight over-arching procurement steps related to the purchase of ICT.

4.1 Determine Needs

The first step in any procurement is to determine the need for and type of product or service to procure. During this step, Requiring Officials will determine if they have a need for a product or service that includes an ICT deliverable. If so, then Section 508 standards will apply to all ICT deliverables that make up the procurement. If it is an ICT procurement, the Requiring Official will need to be sure to identify the needs of users with disabilities for all ICT to determine:

- How users with disabilities will perform the functions supported by ICT, and
- How developed, installed, configured, and maintained ICT will support users with disabilities.

When determining the type of procurement to undertake, the Requiring Official develops the initial statement of work, the specifications, the evaluation criteria and the government estimate and sends these documents to the Contracting Official. When developing the requirements, the evaluation criteria should include language that emphasizes the evaluation of Section 508 conformance as a basis for award. For example – the vendor that meets the minimum technical needs of the requirement, price, and is the most Section 508 conformant will receive the award. As many products and services can evolve through use and modification overtime, it is also important that Section 508 conformance in the evaluation criteria cover the life of the ICT and not just at acceptance.

Micro-purchases that made by a purchase cardholder do not require evaluation criteria or a government estimate.

4.2 Identify Standards

The Section 508 accessibility standards are available Appendices A, B, and C to 36 C.F.R §§ 1194.1, 1194.2. Section E205 of Appendix A and all of Appendix C include the criteria that vendors, testers, and other personnel will use to review products or services for accessibility compliance. A chapter and section list for 508 standards is available in Appendix B of the Handbook with links to the full technical requirements available in the Section 508 Standards and Guidelines from the U.S. Access Board.

As a best practice, identifying the specific Section 508 standards that a product or service will need to meet at the beginning of a procurement will provide clarity to potential vendors on the criteria they will be evaluated against.

It is important to remember many products and services feature multiple types of functionality and that a procurement may involve specific standards spread across multiple sections. Section508.gov includes a dedicated page for how to define accessibility provisions, clauses, and acceptance criteria for procurements that can assist you in this area. If you would like assistance in determining any specific standards to include in a procurement, please contact the Assistive Technology Resource Center. Additional resources to help Department offices in identifying specific Section 508 standards are currently under development and this section of the Handbook will include references to those resources as they become available.

It is recommend that Requirement Officials complete the Accessibility Requirements Tool for identification of the applicable standards to be included in the solicitation document for their procurement requirement.

4.3 Conduct Market Research

Agencies must use market research to determine and document the conformance of products and/or services with Section 508 standards. Market research involves collecting and analyzing information about capabilities within the market to satisfy agency requirements and thoroughly conducted market research provides an explanation of how a manufacturer's product or service meets the elements of the Section 508 standards applicable to the particular product or service under consideration. Requiring Officials should contact vendors directly to request an Accessibility Conformance Report (ACR) or other accessibility conformance documentation if unable to locate through other means.

The most common way to review and assess how a product or service conforms to Section 508 standards is through a vendor ACR. The basis for this report should be version 2.0 of the Voluntary Product Accessibility Template (VPAT), though vendors may format their reports in different ways. Additional documentation may assist in the evaluation of accessibility conformance, including:

- Descriptions of any evaluation methods used to produce the ACR,
- Documentation of features that help achieve accessibility and usability for persons with disabilities,
- Information on core functions that cannot be used by persons with disabilities, and
- Information on how to configure and install the ICT item to support accessibility.

The [Market Research page](#) on the [Section508.gov](#) provides best practices and general information on how to ensure that you are considering Section 508 conformance when procuring ICT. The [Vendor Accessibility Resource Center](#) (VARC) on [Section508.gov](#) maintains a listing of links to a number of product accessibility websites from various vendors. While the vendor community is encouraged to use the VARC as a means to provide accessibility information to the federal government's buying community, the information on the VARC is not all inclusive and does not serve as a final determination as to universe of available and accessible products.

4.4 Review and Certify Section 508 Documentation

As a part of a procurement request for ICT products or services, the Requiring Official (or purchaser) must certify the product or service's conformance with accessibility standards and support this position through documentation and certification.

Requiring Officials can carry out this process by completing the [Section 508 Determination and Certification Form](#) developed by DOJ's Office of the Chief Information Officer. Components may use a comparable form or process instead of this form as long as that form/process covers the same areas addressed in the [Determination and Certification Form](#). It is important to remember that each product or service in an ICT procurement will require a Section 508 review as different standards may apply to each item. The Section 508 Determination and Certification form is not required when purchase is clearly not for ICT goods or services (for example, requests for furniture).

This form (or the equivalent information) must be included with all requisitions and purchase requests for all ICT goods and services. Requiring/Requesting Officials should complete, sign and include all market research information obtained to support the determination with their purchase request for ICT goods and services. An accessibility authority (usually the Section 508 Coordinator or other accessibility subject matter expert) will review the documentation for accuracy and completeness. Once the accessibility review is complete, the documentation is ready to submit to the procurement authority.

4.5 Determine Exception Applicability or Need for an Exception

In certain situations, a product or service may qualify for an exception from Section 508 standards. If requesting an exception, a Requiring Official must explain the rationale for the exception, provide documentation to support the exception request, and receive approval from a reviewing authority (generally the Component or Department Section 508 Coordinator). Information on the exceptions available and the required documentation to support each exception (if any) is included in the [Section 508 Determination and Certification Form](#).

The determination of an exception may occur when a Requiring Official identifies a need for a product (i.e. the procurement of additional server blades) or after conducting market research. Making this determination as early in the process as possible will allow individuals to collect all of the proper documentation required to support an exception request. As noted above, each product or service in a procurement requires its own Section 508 review to determine conformance to the unique standards that apply. Along the same lines, exceptions are also unique to each product or service in a procurement, and it is possible that an exception could apply to one item but not others.

Requiring Officials will need to make a determination on an exception request when completing the [Section 508 Determination and Certification Form](#). Component Section 508 Coordinators will work with Requiring Officials to complete the approval process for each request. If you have questions regarding

exceptions to the Section 508 standards, please contact your Component Section 508 Coordinator, the Department Section 508 Coordinator, or the Assistive Technology Resource Center.

4.6 Proposal/Bid Evaluation and Source Selection

When making award determinations, the Contracting Officer is required to award the contract to the vendor that meets the minimum needs, is the most Section 508 conformant, and satisfies the price and other technical factors as stated in the solicitation/Request for Quotation.

The Requiring Official/source selection panel utilizes the evaluation criteria as stated in the solicitation, which includes Section 508 conformance, to perform and document the technical evaluation.

4.7 Contract Award

Negotiating and awarding the contract is the responsibility of the Contracting Officer but often this individual will conduct a pre-negotiation meeting to discuss negotiation goals, strategy and develop a unified negotiating position. Once the Contracting Officer determines that the bid is advantageous to the Government and is responsive to the solicitation requirements, this individual will make an award. The Contracting Officer will need to be aware of any accessibility conformance issues for any negotiations, discussions, or awards (to the extent they exist).

4.8 Contract Administration

During the administration of the contract, it is imperative that delivered ICT meets the accessibility requirements as stated in the original accessibility documentation or as determined in the requirements for the procurement. When the ICT does not meet these requirements, it is the responsibility of the Contracting Officer's Representative to work with the Contracting Officer to notify the vendor and obtain remediation.

5. Accessible Video and Multimedia

Media developed, procured, used, and maintained by the Department must be Section 508 compliant. Audio-only, video-only and multimedia (synchronized audio and video content) files present information through non-textual formats that may not be accessible to a person with a disability. Alternative descriptions for individuals who are unable to see or hear media content must be available. The following sections describe the different compliance methods for each media type.

5.1 Audio Only

Audio-only files include speeches, sound bites, sounds effects, etc. This requirement applies to audible information only and not any audible information accompanied by meaningful video. All meaningful audible information must include an equivalent description, often provided within page content of a separate transcript file. Meaningful audible information includes all speech and relevant audio cues (e.g., telephone rings, door openings).

To test for compliance, first play the audio file and identify the meaningful content. Is all meaningful information from the audio file available without playing the audio? Is the source content available in another location other than online? Audio must not be the only way to convey meaningful content.

Please contact the Assistive Technology Resource Center for examples of and best practices for audio files with a transcript.

5.2 Video Only

Videos (without sound) and animation include sequences of overlaid images, dynamic changes of state such as a moving progress bar, a chart illustrating dynamic flow changes from one state to another, etc. This media type contains changing visual/video information without accompanying meaningful sounds.

To test for compliance, play the animation/video file and identify the meaningful content. Is all meaningful visual information from the animation/video file available without the animation/video? Animation or video must not be the only way to convey information and an equivalent description is required for all meaningful visual information. All visual information (e.g., man places passport under scanner, animated text) must be part of the description. The primary source of information should be page content, not the video, with the animation/video visualization supporting the page content.

Please contact the Assistive Technology Resource Center for examples of and best practices for animation/video files with descriptions.

5.3 Multimedia (Synchronized Audio and Video)

Multimedia is a presentation consisting of time-synchronized media (primarily audio and video). Examples include webcasts, press conferences, instructional videos, and online training presentations. The synchronization of the audio and video requires synchronization of the equivalents for sounds and visuals as well. However, it is acceptable to have separate files for the synchronized captioned version and synchronized audio described version of the multimedia and [DigitalGov's How to Make Audio Descriptions](#) page has examples labeling different versions.

As a reminder, meaningful audio playing over a static image is audio-only for accessibility purposes. Similarly, meaningful videos without any meaningful sounds is video-only. Please see sections 5.1 and 5.2 above for information on audio- and video-only files.

Multimedia content should provide captions equivalent to the audible content, synchronized so that text displays when hearing audio. This includes synchronizing captions for all speech and relevant audio cues (e.g. telephone rings) as well. Ensure the captions are readable and do not block other important visual content on the screen. More information on captioning is available on [DigitalGov's How to Caption page](#).

Multimedia files should also include synchronized audio descriptions announcing visuals as they appear. Adding audio descriptions into finalized audio tracks often results in unsynchronized and inadequate descriptions due to insertion during natural pauses in the audio. It is best to plan for audio descriptions during script development, allowing for the incorporation of these descriptions into the narration or dialog as much as possible. This should minimize the number of supplemental audio descriptions needed.

When needing a narrative to translate a visual image, ensure that provided audio descriptions are equivalent to the multimedia's visual content. Enable audio descriptions on the media player and play the multimedia file. The file should contain verbal descriptions of all screen text and visual information (e.g., man places passport under scanner) synchronized to the audio descriptions.

Please contact the Assistive Technology Resource Center for examples of and best practices for captioning and audio descriptions as well as for how to incorporate audio descriptions into multimedia.

6. Configuration of Equipment

The intended audience for this section is the Requiring Official who will identify functional and accessibility requirements for purchased equipment. For those procurements seeking Commercial-Off-The-Shelf (COTS) equipment, please see Section 8.

6.1 Defining Closed Functionality

This category of electronic products generally includes software that does not allow a user to easily attach or install assistive technology to access the information. Examples include information kiosks, information transaction machines, copiers, printers, calculators, fax machines, and similar types of products. Development of this type of product requires building in accessibility so users can interact with the product without connecting an external assistive device. For example, a kiosk must provide audible instructions and buttons that are distinguishable tactilely for non-visual users, in addition to meeting physical access and reach requirements. Section 402 (Chapter 4) of the Section 508 standards contain the applicable technical requirements for closed functionality products.

6.2 Computers (Desktop and Portables)

While most computers are typically COTS procurements, it is important for the Requiring Official to consider accessibility requirements. For example, in procuring touchscreen tablets, an alternative accessory for input such as a physical keyboard or an onscreen keyboard and stylus must be available. Chapter 4 of the Section 508 standards contain the applicable technical requirements for hardware, with software requirements addressed in Chapter 5 that will likely apply. If you are an individual in need of specific accommodation, please contact the Assistive Technology Resource Center at 202-616-7100, or DOJ.Service.Desk@usdoj.gov.

6.3 ICT with Two-Way Voice Communications

Section 412 (Chapter 4) of the accessibility regulations contain the technical requirements for any device that provides a function for voice communication, including wireless handsets. Many of these technical standards require compatibility with hearing aids and TTY support.

Additional Section 508 standards and requirements apply to modern smartphones as these devices offer greater functionality than just voice communications. With functionality similar to that of computers, many chapters of Appendix C may also apply (such as the chapter on software). Only the applications (or "apps") that are included with the operating system (OS) on a fresh install are the responsibility of the vendor that provides the operating system. For example, the OS vendor would be responsible for the Section 508 compliance of a 'Settings' app that is included with the OS. However, the agency would be responsible for any custom agency app installed on the phone. Requiring Officials should consider all applicable standards and select the most accessible smartphone that meets business needs.

7. Building Accessible Software and Web Pages

At the time of their original publication in 2001, the Section 508 standards addressed web content that consisted primarily of static HTML pages with text and images. Modern applications and programming languages are much more complex and often contain both web and software content, such as AJAX or Java. Some web sites and web applications incorporate advanced interface elements and functions that closely resemble software applications. Similarly, software applications often contain some web content

whether in the form of a help section or for other functionality. As such, it is a best practice to consider the technical requirements of both (Chapters 5 and 7) when working with either software or web pages.

Section508.gov's resources on design and development, particularly the accessibility resources for developers and authors are the most up-to-date assets available to developers. Additionally, online searches may be effective for finding coding solutions for accessibility. However, as the accessibility testing of these items is generally straightforward, in most cases the developer will be able to provide the accessibility properties necessary for compliance as long as testing methodology is clear.

7.1 Testing for Compliance

There are two test methodologies available for testing: automated and manual. Currently, automated scan tools are only effective for Web sites and not software.

Scan tools crawl web sites from a set list or configurations of certain properties (such as domain) and evaluate the pages against a set of rules in order to produce a compliance report. The benefit of using an automated scan tool is the minimal effort required to evaluate many pages of a web site quickly, with most scan tools requiring minutes for configuration. Although helpful, automated scanning cannot determine if a website is accessible or conformant with all accessibility standards. Generally, an automated tool can assess about 30% of accessibility requirements. The rest of the web standards require human judgment (such as color dependence and quality of text descriptions) via manual testing.

For the evaluation of web sites, it is most efficient to utilize both an automated scan tool and manual testing together. Manual testing requires much more time and effort and tester skill. Site templates, if in use, should go through the more comprehensive manual testing, as they would affect the compliance of all template pages.

Manual testing provides the most complete and comprehensive evaluation of software and web applications. Testing conducted by the Assistive Technology Resource Center utilizes the Trusted Tester Section 508 compliance testing, a process endorsed by the Federal CIO Council Accessibility Community of Practice. This process utilizes code-based evaluations and does not utilize assistive technologies as part of compliance testing. Instead, the process describes the tools and procedures for manual evaluation of Windows desktop applications and web content for Section 508 compliance. The use of the Trusted Tester process by multiple agencies allows individuals to share test results thereby reducing the time and effort spent testing applications already reviewed and tested under this methodology. The Department is also a key member of the committee that approves updates and modifications to the Trusted Tester process.

Training on the Trusted Tester process is available online for all personnel, which if completed successfully certifies an individual as a Trusted Tester. Successful completion of the training requires passing a final exam with at least a 90% success rate. Additional information on this process and the training is available on DOJNet.

7.2 Mobile Applications

Native mobile applications (commonly referred to as "apps") must run on a mobile device with a mobile operating system. Mobile apps will not run on a desktop computer; as such, it is not possible to test their accessibility compliance using any of the previously defined methods.

The general method to test accessibility of a mobile app is to utilize the assistive technology and accessibility features of the mobile device. Assistive technology such as a screen reader is included with iOS and Android mobile devices. The general guidance for testing accessibility with a screen reader is to compare the visual information for each element/function with the information announced by the screen reader to determine equivalent access.

For tips on how to locate accessibility information for or tools in Apple's iOS or Google's Android operating systems, please contact the Assistive Technology Resource Center.

It takes quite some time to learn to use and become proficient with screen readers, and there is typically a high rate of errors for early learners. However, until a more mature test process is available for mobile apps, testing with a screen reader is an acceptable check.

Mobile web sites differ from native mobile apps in that it is possible to display mobile web sites in a desktop browser. Therefore, it is possible to test these sites on a desktop computer using the Trusted Tester process.

8. Reasonable Accommodation

8.1 Equal Employment Opportunity Staff

The Equal Employment Opportunity Staff (EEOS) is responsible for developing and implementing the Department's equal employment opportunity program that complies with agency and government-wide policy, regulations, and statutes. This work includes responsibility for ensuring that the Department provides reasonable accommodation to individuals with disabilities under the Rehabilitation Act of 1973. Information on EEOS' reasonable accommodation program is available on the office's website.

8.2 Resources

8.2.1 Assistive Technology Resource Center

The Assistive Technology Resource Center (ATRC) provides assistive technology solutions to ensure equal access to electronic and information technology for Department employees with disabilities. Services provided through the ATRC include:

- Advice and Guidance – Provide feedback to customers on the Section 508 compliance of their electronic documents, software (web content, applications, and mobile apps), hardware, procurements and on conducting accessible meetings.
  Needs Assessments – Assists DOJ employees with disabilities and their managers identify ICT reasonable accommodations.
- Training – ICT and Section 508 Awareness presentations; regularly scheduled accessible electronic documents training (Microsoft Word and Outlook; PDF using Adobe Acrobat); Trusted Tester program; and 508 compliant procurements.

While the ATRC provides numerous services for DOJ employees and components, there are restrictions to the work they perform, including:

- The ATRC is not responsible for addressing, removing, or resolving architectural infrastructure barriers that may be required as a reasonable accommodation.

- The ATRC does not provide job restructuring, telework, or reassignment as a reasonable accommodation.
- The ATRC does not provide personal use items as a reasonable accommodation such as, but not limited to canes, crutches, hearing aids, wheelchairs, or alternative augmentative communication devices.

To request services from the ATRC please contact the DOJ Service Desk at DOJ.Service.Desk@usdoj.gov (email) or 202-616-7100 (phone) or the Service Owner, Jacqueline Turner, at Jacqueline.Y.Turner@usdoj.gov (email) or 202-514-3445 (phone).

8.2.2 Computer/Electronic Accommodations Program (CAP)

Established by the Department of Defense (DoD) in 1990, the Computer/Electronic Accommodations Program (CAP or CAPTEC) is a centrally funded program that provides assistive technology and reasonable accommodations to people with disabilities and wounded Service members. CAP's mission is to ensure that people with disabilities and wounded Service members have equal access to the information environment and opportunities in the DoD and throughout the Federal government.

The Department with CAP, which provides no-cost accommodation solutions to employees with disabilities.

Be sure to contact your Component's Section 508 Coordinator prior to requesting assistance from CAP. To contact the program office and schedule an appointment, please call 703-693-5160 (voice) or 703-693-6189 (TTY), or send an email to CAP.CAPTEC@mail.mil. Normal CAPTEC operating hours are Monday through Friday, 8:00 AM to 4:00 PM

8.2.3 Federal Relay Service

The Federal Relay Service (FedRelay) is a federal government telecommunications service that enables federal employees who are deaf, hard of hearing, deaf/blind, or have speech disabilities equal communication access to conduct their official duties. FedRelay also allows members of the public who may have disabilities to conduct business with the federal government and its agencies. FedRelay provides quality telecommunication access with the latest technology and services available. All calls are strictly confidential with no maintained records of any conversations. Below is the agency name, code and website for the Federal Relay:

- Agency Name: Department of Justice
- Agency Code: 1500
- FedRelay website

FedRelay is available in two forms – telephonically- or internet-based services – with descriptions of both services available below.

- Telephonically-based Services:
    - Text Telephone TTY/ASCII/Voice: Permits persons with a hearing or speech disability to use the telephone system via a text telephone (TTY) or other device to call persons with or without such disabilities.
    - Speech-to-Speech (STS): Provides a Communication Assistant (CA) for people who may be difficult to understand over a telephone due to a speech disability. Specially trained

Communications Assistants (CA) relay calls with the CA acting as a transparent conduit for the transmittal of information.

- Captioned Telephone (CapTel): Uses voice recognition technology to caption everything that spoken during a telephone conversation, with captions displayed through a telephone with a built-in screen.

- Internet-based Services:
  - Video Relay Service (VRS): Enables a person who uses sign language to communicate with a hearing person through videoconferencing with a certified Video Interpreter (VI) through the Internet.
  - Video Remote Interpreting (VRI): Provides deaf and hard of hearing Federal employees with on-demand remote sign language interpreting in order to facilitate communication between individuals who are in the same location.
  - IP Relay: A service offered to Federal employees who are Deaf, hard of hearing or have a speech disability that allows them to place relay calls to conduct government business over the Internet between locations within the United States.
  - Relay Conference Captioning (RCC): Uses captioners to provide real-time texted streamed to an internet-connected computer, mobile device or tablet. RCC users can follow along with the dialogue by reading it on-screen as it is spoken and captioned.
  - Captioned Telephone (IP CapTel): Uses voice recognition technology to caption everything spoken during a telephone conversation with captions displayed through the internet.

FedRelay provides services to offices that are in sensitive compartmented information facilities and meets the following security and confidentiality requirements:

- FCC Standards
- GSA IT Security Standards
- Federal Information Processing Standards
- Confidentiality under the FCC TRS Standards
- Conformance with the Privacy Act of 1974

All of the information transmitted through the Federal Relay service is completely confidential. The service does not maintain records of any conversations and destroys all information transmitted during a call after a conversation

9. Notification of Accessibility Issues

If you have trouble when attempting to access ICT products, contact your supervisor and/or the owner of the ICT to resolve the problem. If the issue is with a website, notify the webmaster and ask for resolution. If it is with an email, notify the person that sent the message. Your component Section 508 Coordinator is also available to provide assistance and a list of Coordinators is available on DOJNet's Section 508 website.

Appendix A: Acronyms

Acronym	Meaning
Acronym	Meaning
Apps	Applications
ATRC	Assistive Technology Resource Center
CA	Communications Assistants
CAP or CAPTEC	Computer/Electronic Accommodations Program
CapTel	Captioned Telephone
CART	Communication Access Real-time Translation
CO	Contracting Officer
COR	Contracting Officer's Representative
COTS	Commercial Off The Shelf
DHS	Department of Homeland Security
DOIT Center	Disabilities, Opportunities, Internetworking, and Technology Center
DOJ	Department of Justice
ICT	Information and Communication Technology
FAR	Federal Acquisition Regulation
GPAT	Government Product Accessibility Template
GSA	General Services Administration
PDF	Portable Document Format
RCC	Relay Conference Captioning
STS	Speech to Speech
TTY	Teletypewriter
URLs	Uniform Resource Locator
VARC	Vendor Accessibility Resource Center
VI	Video Interpreter
VPAT	Voluntary Product Accessibility Template
VRI	Video Remote Interpreting
VRS	Video Relay Service

Appendix B: Terms & Definitions

Term	Meaning
Equivalent Facilitation	An instance where ICT design or technology does not fully conform to one or more Section 508 standards but still provides substantially equivalent or greater accessibility and usability to individuals with disabilities.
Information and Communication Technology	Any equipment or interconnected system or subsystem of equipment used to create, convert, or duplicate data or information. Also, any equipment or interconnected system or subsystem of equipment that is used to automatically acquire, store, manipulate, manage, move, control, display, switch, interchange, transmit, or receive data or information. It includes computer hardware, software, networks and peripheral equipment; telephones; copiers; fax machines; and video and multimedia products, as well as many other electronic and communications devices commonly used in offices.
Public Facing	Content made available by an agency to members of the general public. Examples include, but are not limited to, an agency Web site, blog post, or social media pages.
Statutory Exception	A specific circumstance in which the law allows acquisition of products or services that do not fully conform to the Section 508 Standards for ICT. These circumstances include products incidental to a contract, safe harbor/legacy compliance, best meets, equipment contained in maintenance or monitoring area, fundamental alteration of the product, national security systems, and undue burden.

Appendix C: Section 508 Standards (36 C.F.R. § 1194.1)

Appendices A through D to 36 C.F.R. § 1194.1 contain the Section 508 standards for ICT developed, procured, maintained, or used by Federal agencies, as revised.

Appendix A to Part 1194 – Application and Scoping Requirements

- Chapter 1: Application and Administration
  - E101 General
  - E102 Referenced Standards
  - E103 Definitions
- Chapter 2: Scoping Requirements
  - E201 Application
  - E202 General Exceptions
  - E203 Access to Functionality
  - E204 Functional Performance Criteria
  - E205 Electronic Content
  - E206 Hardware
  - E207 Software
  - E208 Support Documentation and Services

Appendix B to Part 1194 – Section 255 of the Communications Act: Application and Scoping Requirements

- Chapter 1: Application and Administration
  - C101 General
  - C102 Referenced Standards
  - C103 Definitions
- Chapter 2: Scoping Requirements
  - C201 Application
  - C202 Functional Performance Criteria
  - C203 Electronic Content
  - C204 Hardware
  - C205 Software
  - C206 Support Documentation and Services

Appendix C to Part 1194 – Functional Performance Criteria and Technical Requirements

- Chapter 3: Functional Performance Criteria
  - 301 General
  - 302 Functional Performance Criteria
- Chapter 4: Hardware
  - 401 General
  - 402 Closed Functionality
  - 403 Biometrics
  - 404 Preservation of Information Provided for Accessibility
  - 405 Privacy

Appendix D to Part 1194 - Section 508 Standards for Electronic and Information Technology

Appendix D, the original Section 508 standards published on December 21, 2000, is for use by agencies when evaluating application of the "safe harbor" provision (E202.2) to their existing (i.e., legacy) ICT.