

Getting Started with Section 508

What is Section 508?

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Executive Summary

One of the many features of DocOrigin is the ability to generate ADA Section 508 “Information and Communication Technology” (ICT) PDF/UA compliant documents. What is Section 508 and who are affected by its rules? This article deals with the Federal Government’s obligations, but private industry should consider them as applicable to their environments as more and more customers and employees are requesting accommodations as regards Section 508.

Section 508 of the ADA states that the Federal government must provide employees and the public with disabilities the same level of access to Information and Communication Technology (ICT) as persons who do not have disabilities. When it comes to making sure persons with disabilities have equal access to ICT, every organization, company and government agency can make a difference.

When the Federal government "develops, procures, maintains, or uses" ICT, it must conform to the standards mandated by Section 508 of the Rehabilitation Act.

Inaccessible ICT prevents employees and customers with disabilities from doing their jobs, or interacting with an organization, a company and a government agency.

Section 508 Defined

Section 508 of the Rehabilitation Act of 1973 as amended is a set of standards that requires Federal agencies to make ICT accessible to employees and members of the public who have disabilities in a comparable manner to the access experienced by employees and members of the public without disabilities.

The revised Section 508 Standards apply to ICT that is “procured, developed, maintained, or used” by agencies of the Federal government. Section 508 was enacted to eliminate barriers to ICT, make opportunities available for persons with disabilities, and encourage development of technologies that will help achieve these goals.

Differences Between Section 504 and Section 508

Conformance with Section 508 standards does not require or guarantee that all an individual's accessibility needs will be met. Section 504 is one way to address these situations.

It's helpful to understand the differences between Section 504 and Section 508 when determining agency conformance requirements.

Section 504

Section 504 is a part of the Rehabilitation Act of 1973 that prohibits job discrimination and requires employers to make reasonable accommodations for employees with disabilities. Its purpose is to make sure that qualified persons with disabilities are provided the tools, environmental modifications, or other adjustments that allow them to do their jobs. Accommodations that an agency must make under Section 504 include things such as assistive technology (AT), interpreters, and environmental modifications such as ramps or widened doorways.

Section 508: Providing Accessible ICT

Section 508 is an amendment to the Rehabilitation Act that is specific to ICT. Section 508 requires that ICT comply with specific standards designed to improve accessibility.

ICT Defined

ICT includes information technology and other equipment, systems, technologies, or processes, for which the principal function is the creation, manipulation, storage, display, receipt, or transmission of electronic data and information, as well as any associated content.

Products Considered ICT:

Examples of ICT include but are not limited to:

- Computers and peripheral equipment
- Information kiosks and transaction machines that provide information in public places such as Federal buildings and hospitals
- Telecommunications equipment (telephones, telephone systems)
- Customer premises equipment (servers, routers)
- Multifunction office machines that scan, fax, print, etc.
- Software, applications, and websites
- Videos
- Electronic documents (e.g., PDF, Word, Excel, and PowerPoint)

Products Not Considered ICT

Some equipment may contain embedded ICT as an important part of the product, but the primary function of the equipment isn't ICT. A few examples include:

- An air conditioning system that has a self-monitoring thermostat embedded in the unit
- Medical equipment where information technology is integral to its operation, such as x-ray machines and other diagnostic equipment

Additionally, there are some products which may be ICT, but that are not addressed by Section 508 Standards:

- CDs, and DVDs (content recorded to these products must be accessible)
- Cables and power cords
- Wi-Fi, fiber optics

Covered Activities

The standards detail the specific activities covered by Section 508. They include:

Development of ICT

When a new product or service is being created, it is the responsibility of everyone involved to address Section 508 Standards during the planning, design, and development process. All Federal employees and Federal contractors who produce ICT products or services for the Federal government have a responsibility to make sure persons with disabilities are able to access and use the ICT they develop.

Development may include software, websites, hardware, documents, etc. For example, a national park creates new information kiosks for several locations along a scenic walking path. The kiosks are used to point out special attractions along the way. Since the park is owned by the Federal government and the new kiosks are considered ICT, they must meet the Section 508 Standards.

Procurement of ICT

The government is one of the largest procurers of ICT products and services. Federal employees have the responsibility of buying the most Section 508-conformant products/services that best meet their business needs.

The Federal Acquisition Regulations (FAR) provide a detailed process for purchasing products and services for the Federal government. Work with the Contracting Officer and Section 508 Program Manager assigned to your program. They will help you determine the best set of tools and processes to find ICT goods and services that are Section 508 conformant.

For example, if an agency procures mobile devices for field staff so they can submit inspection reports quickly and easily. The mobile devices, along with the software loaded on them, must be the most conformant products available today that meet your business needs.

Maintenance of ICT

ICT products must meet Section 508 Standards when maintained by a Federal agency. These products include but are not limited to websites, software, mobile applications, and upgrades.

Section 508 Testing should always be conducted when new functionality or features are added to existing ICT. Test to make sure ICT remains Section 508 conformant for major software version upgrades, websites and website content updates, and hardware upgrades.

For example, a software application used by an agency is reviewed and appropriately updated by the vendor every three years. The Section 508 Standards apply to the original developed software product and each new release as well.

Use of ICT

In some cases, ICT is used by agencies, but not actually procured by them. Products and services of this type are also covered by Section 508. For example, an open source content management system (CMS) is used by a small agency to maintain their intranet site. The software is free, but since government employees use the software to accomplish their job, the CMS must be Section 508 conformant.

Even if you are not involved in these activities, it's important to understand what they are and how Section 508 applies to them. The information will be useful if your current role changes or if you move to a position where you're involved in these types of activities.

Section 508 Standards Refresh

A 2018 revision to the Section 508 Standards replaces the original product-based standards with an approach based on ICT functions. Technological advances over the past two decades have resulted in the widespread use of multifunction devices. Consequently, replacing the product-based approach with requirements based on functionality ensures that accessibility for people with disabilities keeps pace with advances in ICT. Some of the important changes are described below.

Functional Performance Criteria

Functional performance criteria are outcome-based standards that define whether something can be accessed by a person with disability. These criteria only apply in situations where a technology standard/guideline does not exist to address the situation or when a technical standard cannot be met. Functional performance criteria support the needs of users with:

1. Blindness or visual impairments.
2. Deafness, hearing impairments, or use of assistive hearing devices.
3. Difficulty with speech.
4. Difficulty with fine motor control.
5. Limited reach and strength.

Equivalent Facilitation

The use of an alternate design or technology that results in substantially equivalent or greater accessibility and usability by individuals with disabilities than would be provided by conformance to one of more of the requirements is permitted.

Web Content Accessibility Guidelines 2.0

The Revised 508 Standards incorporate by reference the Web Content Accessibility Guidelines (WCAG) 2.0, a globally-recognized and technologically-neutral set of accessibility guidelines for web content.

For Section 508-covered ICT, all covered web and non-web content and software (such as websites, intranets, word processing documents, portable document format documents, project management software, etc.) is required, with a few specific exceptions, to conform to WCAG 2.0's Level A and Level AA Success Criteria and Conformance Requirements.

Delineation of Covered Electronic "Content"

The Revised Section 508 Standards specify that all types of public-facing content, as well as nine categories of non-public-facing content that communicate agency official business, have to be accessible. "Content," as defined in the standards, encompasses all forms of electronic information and data.

By focusing on public-facing content and certain types of agency official communications that are not public facing, the revised requirements bring needed clarity to the scope of electronic content covered by the Section 508 Standards and, thereby, help Federal agencies make electronic content more consistently accessible.

Expanded Interoperability Requirements

The existing standards require ICT to be compatible with assistive technology (AT) – that is, hardware or software that increases or maintains functional capabilities of individuals with disabilities (e.g., screen magnifiers or refreshable braille displays).

The Revised Section 508 Standards provide more specificity about how operating systems, software development toolkits, and software applications should interact with AT.

Disabilities Defined



Individuals with disabilities are people who have sensory, physical, or cognitive impairments that substantially limit their ability to perform one or more major life activities. Some people who may rely on accessible ICT include those who:

- Are deaf or hearing impaired
- Are unable to speak or have speech impairments
- Are blind or have vision impairments or color blindness
- Have motor skill disabilities
- Have cognitive disabilities or reading disabilities such as dyslexia
- Have photosensitive epilepsy

Disabilities are not always obvious. For example, one in ten males are color blind.

Assistive Technology

One way that persons with disabilities overcome barriers to ICT is through the use of AT, which is hardware or software that enables a person with a disability to use ICT. AT helps persons with disabilities to perform tasks that might otherwise be difficult or impossible. The most commonly used types of AT include:

Speech Recognition Software

Speech recognition software lets a person use spoken commands to enter text or control a computer. This technology has seen huge advances in the past few years and is even used by persons who do not have disabilities. Speech recognition software is also gaining popularity with modern mobile devices.

Screen Readers

Screen reader software applications read information displayed on the screen aloud so that it's accessible to persons who have visual impairments. Screen readers can also present electronic text in braille—a writing system of raised dots, arranged in small cells. People who are blind can then read the content with their fingers using a device called a refreshable braille display.

People who have visual impairments aren't the only ones who need to hear text spoken aloud. People who have dyslexia and other print disabilities may use text-to-speech software. Screen readers are also available for mobile devices.

Screen Magnifiers

A screen magnifier is a software application that allows a user to magnify the entire screen or a portion of a screen as though looking through a virtual magnifying glass. Screen magnifiers are used by persons who have enough vision to see what's on the screen but need more magnification than they can get from eyeglasses.

Many screen magnifiers let users change page colors and size as well as mouse pointer color and size. These features make content easier to read and cursors easier to see.

Reading Assistance Software

Reading assistance software combines advanced speech verification technology with scientifically-based interventions to help strengthen reading fluency, vocabulary and comprehension.

Alternative Input Hardware and Software

With alternative input software or hardware, computers can be controlled by persons who have limited to no use of their hands. Examples include:

- Programs are available that display a keyboard on-screen. Virtual keys can be selected by gazing and blinking or by using a device controlled by the user's head, mouth, breath, or foot.
- Keyboards can be adapted to accommodate persons with disabilities such as carpal tunnel or movement control problems such as trembling.

Benefits of Section 508 Conformance

Complying with the Section 508 Standards provides numerous benefits. Section 508 conformance:

- Eliminates barriers to ICT
- Provides equal opportunities to persons with disabilities
- Encourages development of technologies that enable these goals
- Provides standards for how accessibility can be achieved
- Helps prepare for an aging workforce

Some individuals with disabilities may still require accommodations to achieve access to certain types of ICT, depending on their particular needs.

Risks of Nonconformance

Not conforming to Section 508 can create barriers for persons with disabilities. For example, nonconformance could prevent someone with a disability from being hired, prevent an employee from performing his or her job, or prevent a member of the public, including a Veteran with a disability, from knowing about or receiving vitally important benefits or services.

The costs and time for remediating completed ICT products to meet Section 508 Standards can be much greater than including Section 508 conformance early in development.

Barriers to ICT

Persons with disabilities may experience many barriers to ICT use. Section 508 Standards are an important means of breaking down those barriers.