



Introduction: Welcome!

Welcome to Section 508: What Is It and Why Is It Important to You?

When it comes to making sure persons with disabilities have equal access to Information and Communication Technology (ICT), everyone can make a difference.

When the Federal government "develops, procures, maintains, or uses" ICT, it must meet the Revised Section 508 Standards. Inaccessible ICT prevents employees and customers with disabilities from doing their jobs, or interacting with the federal government. Conformance with these standards is mandated by Section 508 of the Rehabilitation Act.

Whether you are creating documents, designing presentations, buying or building ICT products or services, or supporting ICT, it is important for you to understand your Section 508 related responsibilities so you can do your part.

What You'll Learn

In this course, you'll learn why and how Federal government ICT must provide employees and members of the public with disabilities the same level of access to ICT as persons who do not have disabilities. This course is designed to help you gain an awareness and knowledge of Section 508 and understand your Section 508-related responsibilities as a Federal employee for complying with the law and ensuring persons with disabilities have equal access.

You must score 100% on the end-of-course exam to complete the course successfully. If you do not score 100%, review the course material and retake the quiz. You may do this as many times as necessary.

Course Objectives

When you've completed the course you will be able to:

- Explain what Section 508 is and why it is important
- Explain how Section 508 conformance can make ICT more accessible to persons with disabilities
- Explain how inaccessible ICT impacts persons with disabilities
- List job-related responsibilities for meeting Section 508 Standards
- List available resources to help you meet Section 508 Standards



What is Section 508?: Introduction

So what exactly is Section 508? When does it apply? To whom does it apply?

Section 508 affects many different people, in many roles, and in many different parts of the organization. As a Federal employee or contractor, you may be responsible for Section 508 compliance that aligns with your role in the organization.

This lesson provides a general description of the Section 508 Standards and explains the types of products and services that must meet those standards.

What You'll Learn

When you've completed the lesson you will be able to:

- Define Section 508
- Define Information and Communication Technology (ICT)
- Identify the scope of the Section 508 standards
- List the specific activities covered by Section 508

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.

Read the comments from Michelle, Laura, and Michael telling us why Section 508 is important to them:

Michelle

I was 7 when I lost my sight. I worked hard through school and did pretty well, but I always had to advocate to make sure my class materials were in an accessible format. I often needed accommodations for my class materials, not because the technology didn't exist but because the materials were not created with accessibility in mind.

I learned how to use computers but heard stories of people who, in the "real world," came across barriers that kept them from accomplishing everyday tasks at work.

My first job after graduating from college was with a government agency where I used a computer with a screen reader. Luckily for me my first job was a good experience because the agency I worked for had a strong 508 program that provided a consistent approach to 508. They also provided lots of assistance to content providers so they could create 508 compliant content from the beginning.



Laura

I manage a team of people across the country who work remotely and rely heavily on technology for communication. A few years ago, I experienced nerve damage in both of my hands and lost the ability to use a mouse. I believe the only way I have been able to progress in my career is by using software, Websites, and other technology that have been developed with keyboard-only users in mind. In other words, I need technology that is Section 508 compliant.

Michael

I'm an IT project manager for a large government contractor. We specialize in the development and maintenance of large software applications used by thousands of agency employees. We need to build accessibility into our software so that all people can use it, including those with disabilities. The Section 508 standards, reference materials, and training provided by the agency I work for helps me understand how I can make this happen.

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.

ICT Examples

Examples of ICT include but are not limited to:

- Computers and Peripheral equipment
- Information kiosks and transaction machines
- Telecommunications equipment (telephones, telephone systems)
- Customer premises equipment (servers, routers)
- Multifunction office machines
- Software, applications, and Websites
- Videos
- Electronic documents

This wide range of commonly used products must be accessible to persons with disabilities, including:

- Desktop and mobile telephones and other telecommunications products that interact with users in real time
- Information kiosks and booths that provide information in public places such as Federal buildings and hospitals
- Documents that are posted to the Internet (e.g., PDF, Word, Excel, and PowerPoint)
- Multifunction machines that scan, fax, print, etc.
- Websites including content accessed from the Internet and on private networks



- Computer software and hardware including desktop systems and mobile systems such as laptops and other mobile computers

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

The following 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



Knowledge Check

Which of the following products are ICT that is covered under Section 508?

- A. Smartphones
- B. Information kiosks
- C. Cables and power cords
- D. Blank memory sticks

Knowledge Check Feedback

The correct answers are A and B. Smartphones and information kiosks are examples of ICT products covered under Section 508.

Knowledge Check

Which of the following products are ICT that is covered under Section 508?

- A. Air conditioning system
- B. Tablet computers
- C. X-ray machine
- D. PDF documents posted on a Federal Website

Knowledge Check Feedback

The correct answers are B and D. Tablet computers and PDF documents posted on a Federal Website are examples of ICT products covered under Section 508.



Application, Administration and Scope of Section 508

The application, administration, and scope of Section 508 are defined in the first two chapters of the [Revised Section 508 Standards](#).

The Revised Section 508 Standards replace the original product-based Section 508 Standards with an approach based on ICT functions. The revised technical requirements, which are organized along the lines of ICT functionality, provide requirements to ensure that covered hardware, software, electronic content, and support documentation and services are accessible to people with disabilities.

Technological advances over the past two decades have resulted in the widespread use of multifunction devices. Consequently, one of the primary purposes of the Revised Section 508 Standards is to replace the current product-based approach with requirements based on functionality, and, thereby, ensure that accessibility for people with disabilities keeps pace with advances in ICT.

Section 508 Standards Content Overview

Appendix A applies only to Section 508-covered ICT and consists of 508 [Chapter 1](#), which sets forth general application and administration provisions, and 508 [Chapter 2](#), which contains scoping requirements (that prescribe which ICT – and, in some cases, how many – must comply with the technical specifications).

Appendix C sets forth technical specifications that apply equally to ICT covered under Sections 508. Appendix C includes five chapters, each of which (with the exception of the final chapter) addresses a separate ICT functional area.

These chapters are:

- [Chapter 3: Functional Performance Criteria](#)
- [Chapter 4: Hardware](#)
- [Chapter 5: Software](#)
- [Chapter 6: Support Documentation and Services](#)
- [Chapter 7: Referenced Standards](#)



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.

Functional performance criteria are used to evaluate the accessibility of ICT when clearly defined requirements are either not available, cannot be developed in a timely manner, fail to adequately assess accessibility, or when the technical requirements outlined in [Chapter 4: Hardware](#) or [Chapter 5: Software](#) do not address all of the features of the ICT.

The intent of the standard is to never prevent the technology industry from offering innovative solutions that might allow for equivalent or even greater accessibility. This is referred to as equivalent facilitation. Functional performance criteria can be used to evaluate accessibility for innovative products when existing technical requirements do not apply.

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 or more of the requirements in [Chapter 4: Hardware](#) and [Chapter 5: Software](#) is permitted.

The Functional Performance Criteria in [Chapter 3](#) shall be used to determine whether substantially equivalent or greater accessibility and usability is provided to individuals with disabilities.

Broad Application of 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, PDF 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.

By applying a single set of requirements to Websites, electronic documents, and software, the revised requirements adapt the existing Section 508 Standards to reflect the newer multifunction technologies (e.g., smartphones that have telecommunications functions, video cameras, and computer-like data processing capabilities) and address the accessibility challenges that these technologies pose for individuals with disabilities.



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.

The existing standards required Federal agencies to make electronic information and data accessible but did not delineate clearly the scope of covered information and data. As a result, document accessibility has been inconsistent across Federal agencies.

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. The final rule also specifically exempts AT from the interoperability provisions. The Access Board expects the final rule to improve software interoperability with AT, allowing users better access to the functionalities that ICT products provide.

What ICT Activities are Covered?

By now you should have a good understanding of what ICT is and the types of ICT that are covered under Section 508. The standards also detail when they apply. Federal agencies are subject to Section 508 Standards during four specific ICT-related activities:

- Development
- Procurement
- Maintenance
- Use

Even though you may not be involved in any of these activities right now, 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 on behalf of the government.



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 processes. The entire team (including project managers, user interface designers, programmers, developers, and possibly instructional designers) is responsible for developing a product that meets the Section 508 Standards. Development can take many shapes, such as:

- Software
- Websites
- Hardware
- Documents

ICT Accessibility Examples

Below are some examples of ICT accessibility needs.

An agency wants to provide customers with a way to access personal medical information from mobile and desktop software. A new Website with applications that provide personal privacy is built by a contracted company. Since the new Website and applications are ICT provided by a Federal agency, they must meet the Revised Section 508 Standards.

A supervisor sends his assistant a financial report in PDF format and asks him to distribute it to the entire department. Because this document supports the agency's mission, the assistant should determine if the document is accessible before sending it out as an email attachment.

A national park owned and managed by the Federal government 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

When you procure products and services for a government agency, you have the responsibility to procure ICT that meets the Section 508 Standards. Below are some examples of ICT procurement needs.

You have been asked to procure a new helpdesk system for your agency. Because that helpdesk system will be used by employees of a Federal agency, you must procure the most compliant product available that meets your agency's business needs.

The department's multifunction machine has stopped working and cannot be repaired. You have the authority to procure replacement equipment locally. As an employee of a Federal agency, you must make sure the new multifunction machine is the most conformant device available today that meets your business needs.

Your agency wants to procure mobile devices for field staff so they can submit inspection reports quickly and easily. You must make sure that the mobile devices, along with the software loaded on them, are the most conformant products available today that meet your business needs.



Maintenance of ICT

Section 508 standards must be met when ICT products are maintained. Below are some examples of ICT maintenance needs.

A vendor has been awarded a contract by a government agency to update its Internet Website. This Website fits the definition of ICT, covered under the Section 508 Standards, so the vendor has the responsibility to deliver a Section 508 conformant site that can be accessed by persons with disabilities.

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. Below are some examples of ICT use needs.

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.

An agency's staff advertises upcoming seminars and job fairs on a social networking site. The features of the site used by staff to enter and post information must be usable by persons with disabilities, or a Section 508- conformant alternative must be provided in addition to the social networking site.



Knowledge Check

Which of the following are ICT- related activities covered under Section 508?

- A. Development
- B. Disposal
- C. Maintenance
- D. Procurement
- E. Retention
- F. Use

Knowledge Check Feedback

The correct answers are A, C, D, and F. Development, maintenance, procurement, and use are ICT-related activities covered under Section 508.



Lesson Summary

You've reached the end of this lesson. In review, you learned that:

- Section 508 of the Rehabilitation Act of 1973 as amended was enacted to remove barriers in ICT, make opportunities available for persons with disabilities, and encourage the development of technologies that help achieve these goals.
- Section 508 Standards apply to ICT products and services.
- Federal agencies are subject to Section 508 Standards during four specific activities—"development, procurement, maintenance, and use" of ICT.

You should now be able to:

- Define Section 508
- Define Information and Communication Technology (ICT)
- Understand the scope of the Section 508 Standards
- List the specific activities covered



Why is Section 508 Important?

Now that you've learned about what Section 508 is, it's time to look at barriers often encountered when ICT is not accessible. We will also review how the Section 508 Standards help persons with disabilities gain access to ICT.

What You'll Learn

When you've completed this lesson, you will be able to:

- Define the term "Individuals with Disabilities"
- Explain what "AT" is and what it does for persons with disabilities
- Define accessibility
- Explain what it means for ICT to be Section 508 conformant
- Identify the benefits of the Section 508 Standards
- List three common ICT accessibility barriers

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. The degree of disability may range from mild to moderate to severe or profound. A person may also have multiple disabilities, or they may have "hidden" disabilities and show no outward sign that a disabling condition exists.

If you do not have a disability, you probably know someone —your family, circle of friends, or co-workers — who does. Some people are born with a disability. Others may have experienced some event— sports injury, repetitive stress injury, onset of health condition, etc.—that resulted in their disability. Remember that disabilities are not always obvious. For example, one in ten males are color blind.

Some people who may rely on accessible ICT include those who:

- Are deaf or hard of hearing, including those who need hearing aids and other assisted listening devices
- Are unable to speak or have speech impairments
- Are blind or have vision impairments or color blindness
- Have motor skill disabilities (for example, fine motor control, such as pinching or grasping or simultaneous actions to operate controls and keys)
- Have cognitive disabilities or reading disabilities such as dyslexia
- Have photosensitive epilepsy



Section 508 Defined

In some cases, a person's disability can affect his or her use of ICT. Below are a few examples of barriers for persons with disabilities:

- People who use screen readers may not be able to access information in documents, such as Microsoft Word, Excel, PowerPoint, or PDF, if accessibility is not considered. When these documents are created with accessibility information included, they can be read and understood by persons who are blind or have low vision.
- Online training videos, security briefings, and public service announcements often contain both audio and video. Without captions, users who are deaf or hard of hearing won't be able to hear narration or other important sounds. Persons who are blind or have low-vision may not be able to understand a presentation if visual cues have no accompanying audio.
- A person with a motor disability may have difficulty using a mouse to navigate through and complete a web form. If Section 508-conformant web pages and forms are developed, persons with motor and other disabilities can navigate them using a keyboard or other input device.
- Cognitive disabilities encompass various intellectual or cognitive deficits, including intellectual disability, deficits too mild to properly qualify as intellectual disability, various specific conditions (such as a learning disability), acquired conditions like brain injuries, or neurodegenerative diseases like dementia.

Michelle

I recently received a PowerPoint presentation about statistical analysis from a co-worker. Since I am considered an expert in this area, I was asked to review the presentation content. The person who developed the presentation did not verify that it meets Section 508 Standards requirements, and I had some trouble following the order of the information on the slides. Because of this, I had to send the presentation back to him to reformat before I could review it.

Laura

As part of my job managing a remote team, I am responsible for maintaining a calendar for everyone on the project. The software we use has a built-in calendar function, but it was not designed for keyboard-only navigation. Because of this, I am not able to update the team calendar. This means we will have to look for another product to manage the calendar, or I will have to assign it to another employee. If I assign it to another employee, I am not fulfilling my job requirements. Help!



Knowledge Check

True or False? A person with a disability can always be easily identified.

- A. True
- B. False

Knowledge Check Feedback

Disabilities are not necessarily obvious, so you may not always be able to identify a person with a disability.



Assistive Technology

AT includes 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. With AT, users can:

- Listen as web pages and other documents are read aloud by a screen reader
- Use refreshable braille to review electronic content
- Enlarge words and pictures on their monitor using screen magnification
- Change background and foreground colors on a screen using operating system accessibility settings
- Use voice commands to open a browser or other document, pause a video, or complete a form
- Navigate a web page or software application without a keyboard or mouse
- Use a combination of AT such as a screen reader and Braille display to navigate and understand a page

Many Federal employees, members of the public, and veterans with disabilities need AT to access their benefits online. Members of the public must also use AT to view government-provided information on websites. Employees with disabilities need AT to assist with performing tasks required of them; without AT they would be denied access available to other workers.

Types of Assistive Technology

Many different types of software and hardware-based AT are available today that enable persons with disabilities to access ICT. A few common types of AT include speech input systems, screen readers, screen magnifiers, and alternative keyboards, including head sticks and joysticks. In addition, features such as Sound Sentry in Microsoft Windows can alert persons who are deaf or hard of hearing when a sound is played.

The most commonly used types of AT listed below are further described in the next several pages. They include:

- Speech recognition software
- Screen readers
- Screen magnifiers
- Reading assistance software
- Alternative input software and hardware



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 that reads screen text without providing more detailed information about elements like menus, controls, and images.

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 mobility. Examples include:

- Programs are available that display a keyboard on-screen. Virtual keys can be selected by gazing and blinking or by using a foot-controlled pointing device and foot pedal. A stick strapped to the head (head stick) or held in the mouth (mouth stick) can also be used to select keys on a virtual keyboard.
- Keyboards can be adapted to accommodate persons with disabilities such as carpal tunnel or movement control problems such as trembling.
- Other alternate input technologies allow users to control computers with their head, eyes, breath, or feet.



Knowledge Check

Which type of assistive technology enables computers to be controlled by persons who have limited to no use of their hands?

- A. Screen reader
- B. Voice-to-text software
- C. Screen magnifier
- D. Reading assistance software

Knowledge Check Feedback

The correct answer is B. Voice-to-text software enables computers to be controlled by persons who have limited to no use of their hands.



How Accessibility Relates to Section 508

The terms "accessibility" and "Section 508 conformance" are often used interchangeably, but they actually refer to different, related things.

Accessibility: When referring to products or electronic information, the term "accessibility" or "accessible" describes how successfully persons with a disability can perceive, operate, and understand information they want or need, similar to "usable" which can have a range of outcomes.

Section 508 conformance: Section 508 is a standard that must be followed by Federal agencies when they "develop, procure, maintain or use" ICT. Section 508 provides a set of standards that must be met to enable access by persons with disabilities. Conformance with Section 508 Standards allows persons with disabilities to have access and use of information and data. This includes information which enables people to be informed, perform work, receive government benefits, and conduct business.

Conformance with Section 508 Standards does not require or guarantee complete access with every AT product. In addition, Section 508 conformance does not necessarily mean all an individual's accessibility needs will be met. Other laws such as Section 504 (discussed later in this course) address these situations.

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.

Reducing Barriers to ICT

Since the law was enacted, barriers to ICT have been reduced, and in some cases eliminated. People with disabilities are able to use existing and emerging technology to do their jobs, and can take advantage of new opportunities that would not be possible if barriers to ICT still existed.

The next page contains a few examples of Section 508-related barriers and ways some barriers have been eliminated. Conforming with Section 508 Standards helps eliminate barriers and provides equal opportunities to persons with disabilities.



Examples of Barriers to ICT

Below are some common ICT accessibility barriers.

Example 1: Jin wants to register for an online seminar that will help him learn new skills needed for a promotion. Due to a motor disability, Jin is unable to use a mouse. Instead, he uses his keyboard to navigate his screen. The online sign-up form for the webinar is Section 508 conformant so he is able to complete all the form's fields using his keyboard. Because this online form is accessible, a barrier doesn't exist that would prohibit Jin from acquiring new skills for his job.

Example 2: Marcela is a new Federal agency employee. After orientation, she is asked to begin using the agency's online human resources software. Her first task is to complete her timecard. Marcela, who is blind, uses a screen reader and soon learns that the software does not work with AT. Because the software is not Section 508 conformant, Marcela is unable to perform this necessary daily task.

Example 3: Jason attends the new employee orientation with Marcela. During orientation, he is asked to view an online security course. The course consists of short videos on various topics. Jason is deaf and relies on captions to understand the videos. Since the videos include captions for the narration, Jason is able to complete the required training.

Example 4: Staff at an agency are thrilled to learn a new multifunction machine has finally arrived. Marcia, who uses a wheelchair, works in the office and is able to use the old machine. The control panel on the new multifunction machine is located on the top of the device, and is too high to be easily reached by someone using a wheelchair. Since the new machine cannot be reached by Marcia when using her wheelchair, it is not conformant with Section 508 Standards.

Example 5: Kellie is a retired veteran who is visually impaired. She uses a smartphone (mobile device) to check her email while she is away from home. She also uses her mobile device to receive email messages about her VA healthcare appointments. Kellie has enabled a feature on her mobile device that reads text aloud to her from her email program. Since Kellie's smartphone can read email aloud, and the VA provides Section 508 conformant appointment reminders, Kellie can access the reminders about her VA appointments using her mobile device.



Lesson Summary

You've reached the end of the second lesson. You learned that:

- Individuals with disabilities are persons who have physical or mental impairments that limit their ability to perform one or more major life activities
- AT is software or hardware that helps a user with a disability use ICT
- The term "accessibility" describes how successfully a person with a disability can access ICT
- There are numerous benefits to Section 508 conformance

You should now be able to:

- Define the term "Individuals with Disabilities"
- Explain what AT is and what it does for persons with disabilities
- Define accessibility
- Explain what it means for ICT to be Section 508 conformant
- Identify the benefits of the Section 508 Standards
- List three common ICT accessibility barriers



Your Responsibilities: Introduction

Everyone can make a difference in improving access to Information and Communication Technology (ICT) for persons with disabilities.

Even if your job is not related to the development, procurement, maintenance or support of ICT, there are still important ways for you to be involved.

Section 508 Roles and Responsibilities

Here are a few examples of when you need to be aware of your Section 508 responsibilities:

- If you create documents that support your agency's mission which may be kept for future use (such as reports or presentations), you must know how to make them accessible so persons with all abilities can access them
- If you are asked to give input about a procurement of ICT, you need to ask how the needs of users with disabilities and Section 508 technical requirements are being included in the requirements document
- If you are involved in purchasing ICT, you must understand how Section 508 fits into the acquisition process
- If you develop software, Websites, or other ICT, you must understand how to include Section 508 within the whole life cycle of the development process
- If you maintain or support ICT products, you must verify that upgrades are Section 508 conformant and that customers with disabilities have access to support services

What You'll Learn

When you have completed this lesson, you should be able to:

- Identify Section 508 responsibilities when procuring ICT products or services
- Identify Section 508 responsibilities when developing or authoring ICT products or services
- Identify Section 508 responsibilities when maintaining and using ICT products or services

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.



Procuring ICT Products or Services

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

When you are procuring ICT products and services on behalf of your agency, ask yourself the following questions:

- What does the product or service need to do; what are the business needs?
- Does the product or service meet the definition of ICT?
- Is the purchase a Micro Purchase (<\$10,000), or is it a complex procurement that includes numerous components?
- Will the Acquisition Office of your agency need to be involved?
- Will there be General Exceptions? (Chapter 2, E202)
- Will there be Electronic Content? (Chapter 2, E205)
- Will Functional Performance Criteria apply? (Chapter 3)
- Does the product meet the definition of Hardware? (Chapter 4)
- Does the product or service meet the definition of Software? (Chapter 5)
- Will there be Support Documentation and Services required? (Chapter 6)

Procuring ICT Products and Services

Process

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.

Requirements (Statement of Objectives, Statement of Work, Performance Work Statement)

Be sure to include Section 508 technical standards when developing requirements documents for procurements. The more specific the Section 508 Standards are in the requirements document, the easier it is for the vendor and you to determine if the product or service is Section 508 conformant. Make sure the requirements in the contract are specific to the product or service you are procuring. Standardized contract language that states the product must be Section 508 conformant is not sufficient. To do this you can use the tools at www.section508.gov such as the Accessibility Resources Tool (ART).

When procuring ICT products or services, work with your Section 508 Program Manager and Contracting Officer to confirm the contract and supporting documents clearly identify applicable Section 508 Standards.



Market Research

Once you decide what the ICT must do, the next step is to conduct market research on available ICT products and services that meet those needs. Make sure to document your findings. Below are examples of research methods you may use when conducting Market Research.

Demonstrations

Ask for product demonstrations. Vendors usually love to show off their products and services. A product demonstration is a great time to ask the vendor if the ICT is Section 508 conformant. When the vendor states the product is Section 508 conformant, ask how conformance is determined. Find out if someone from your agency's Section 508 office can attend and provide support. They may be able to ask important questions during the demonstration to help verify Section 508 conformance.

In-House Testing

Some vendors offer a trial version or limited licensing of ICT products or services. Ask the vendor if a trial or free version is available. If so, work with the Section 508 Program Manager at your agency to determine if in-house testing for Section 508 conformance should be conducted before purchasing ICT.

Marketing Materials

Most vendors are proud to advertise Section 508 conformant goods and products. Section 508 conformance is a great selling point for government buyers. Research vendor Websites, brochures, and other marketing materials and find out if the vendor claims the product(s) or service(s) is Section 508 conformant. Call the vendor and ask for an explanation about how conformance is determined, and how the product or service is accessible to users with disabilities.

Request(s) for Information (RFIs)

The Federal acquisition process supports Requests for Information (RFI). An RFI is a formal invitation from the government released to vendors asking for documented information about specific products or services. A Contracting Officer will work with you as you define the requirements for your RFI. (S)he may also recommend involving a Section 508 Program Manager in creating the RFI if Section 508 conformance is part of your requirements for ICT.

VPAT

A VPAT, or Voluntary Product Accessibility Template (located at www.ITIC.org), is sometimes used by vendors to provide a representation of their product's conformance with Section 508. VPATs may help you identify available commercial ICT products and services that support accessibility. Remember that a VPAT does not guarantee that the product is Section 508 conformant. The purchasing agency must verify and validate that the ICT product or service is Section 508 conformant.

Federal Procurement Tools

The Federal government provides automated tools at www.section508.gov. These tools were created by GSA to provide a way for a Federal buyer to develop Section 508 technical criteria to include in the requirements document thus making it a mandatory requirement for the vendor to provide accessibility information to bid on a solicitation.



General Exceptions

[General exceptions](#) are exempt from conformance with the Revised 508 Standards as listed below:

Legacy ICT

Any ICT component or portion of existing ICT that complies with the Original Section 508 standard and that has not been altered in any way on or after January 18, 2017, shall not be required to be modified to conform to the Revised Section 508 Standards.

National Security

The Revised Section 508 Standards do not apply to ICT operated by agencies as part of a national security system, as defined by [40 U.S.C 11103\(a\)](#).

Federal Contracts

ICT acquired by a contractor incidental to a contract shall not be required to conform to the Revised Section 508 Standards.

ICT Functions Located in Maintenance or Monitoring Spaces

Where ICT functions are located in spaces that are frequented only by service personnel for maintenance, repair, or occasional monitoring of equipment, such status indicators and operable parts, shall not be required to conform to the Revised 508 Standards. (i.e. routers, Wi-Fi, fiber optics, etc).

Undue Burden or Fundamental Alteration

Section 508 requires ICT to be accessible to persons with disabilities unless an undue burden would be imposed on the agency. Undue burden situations are a high standard to meet and should not be used casually as a reason for making a nonconforming procurement.

Where an agency determines that conformance to the Revised 508 Standards would impose an undue burden (Chapter 2, E202.5) or would result in a fundamental alteration in the nature of the ICT, conformance shall be required only to the extent that it does not impose an undue burden, or result in a fundamental alteration in the nature of the ICT. All undue burden exceptions must be fully documented.

For more information on how undue burden is handled in your agency, consult your agency's [Section 508 Program Manager](#). It is still your agency's responsibility to provide an alternate means of access to anyone who requests it.

Alternative Means and Best Meets

Where conformance to one or more requirements in the Revised 508 Standards imposes an undue burden or a fundamental alteration in the nature of the ICT, the agency shall provide individuals with disabilities access to and use of information and data by an alternative means that meets identified needs.

Where ICT conforming to one or more requirements in the Revised 508 Standards is not commercially available, the agency shall procure the ICT that best meets the Revised 508 Standards consistent with the agency's business needs.



Required Documentation. The responsible agency official shall document in writing:

The non-availability of conforming ICT, including a description of market research performed and which provisions cannot be met, and (b) the basis of determining that the ICT to be procured best meets the requirements in the Revised 508 Standards consistent with the agencies business needs.

Contact [your agency's Section 508 office](#) for assistance in determining if an exception exists for an ICT product or service you are purchasing.



Knowledge Check

True or False? Section 508 standards apply to ICT products and services that are developed, procured, maintained, or used by the Federal government.

- A. True
- B. False

Knowledge Check Feedback

The correct answer is A. Section 508 standards apply to ICT products and services that are developed, procured, maintained, or used by the Federal government.



Section 508 Responsibilities When Developing or Authoring ICT

Section 508 should not be a road block when developing or authoring ICT. It is simply a set of standards that:

- Enables the largest audience possible to use ICT products and services
- Encourages innovation
- Boosts creative problem solving

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.

Developing Electronic Content

Do you create sharable electronic content in formats such as PDF, PowerPoint, Excel, or Word? If so, you are responsible for ensuring that content is accessible. When electronic content is created in an accessible format, it can be read and understood by everyone, including persons with disabilities.

Accessibility standards for electronic content are defined in [E205 Electronic Content](#).

ICT Development Team

When developing ICT, Section 508 is included throughout the development life cycle process.

Section 508 Program Manager

The Section 508 Program Manager (Section 508 Coordinator) provides subject matter expertise, guidance, and support for the development of Section 508 conformant ICT.

Requirements Developers

Every Federal agency must provide accessible ICT products and services. The ultimate responsibility for this mission resides with the people who develop the requirements documents. Requirements developers should include Section 508 Standards in the planning stages and timeline for development. This includes planning the resources needed to deliver conformant products.

The requirements could come from various sources such as the Program Office or the IT Office. The IT staff and managers who oversee, develop, and deliver ICT solutions should also be in the approval chain for reviewing and approving Section 508 requirements.

Designers

For ICT covered by Section 508 Web and non-Web content and software, including for example, Internet Websites, intranets, text documents, PDF, and project management software, is required (with a few specific exceptions) to conform with WCAG 2.0 Level A and Level AA Success Criteria and Conformance Requirements. This also includes the Revised Section 508 Standards Chapter 5, Software, and Interoperability with Assistive Technology (Chapter 5, 502).



Dealing with an Accessibility Issue

What should you do if you are an employee with a disability who is having problems accessing ICT at work? As an employee with a disability, it is not your job to determine Section 508 conformance. But, if you're having trouble doing your job because of ICT that you feel is inaccessible, you can reach out to agency experts and resources for help:

- Discuss accessibility issues with your supervisor
- Focus on the specific problem if you believe the issue is related to ICT

Michael

It is so much better to include Section 508 throughout the entire development process. We've had other project teams come to us to ask us how to fix something that isn't compliant a few days before it was scheduled to go live! It's easier to just make it compliant in the first place. That hasn't always been easy, but with the help of our agency's Section 508 office, we addressed questions before they became real problems. All the developers on my team are proud to deliver software that can be used by everyone in the agency.

Testing

Testers should validate that Section 508 conformance standards are met before ICT can be released for use. They follow processes and guidance from the Section 508 Program Manager to verify products meet accessibility needs. Testing time is dramatically decreased when including Section 508 Standards through the product development life cycle. This decreases costs to the program and improves the quality of ICT products. There is a Trusted Tester (TT) certification course available from DHS (information can be found by contacting accessibility@DHS.gov).

ICT development teams test ICT products and services to verify and validate Section 508 technical standards are met. The IT manager is responsible for making sure all applicable testing is completed. Several layers of testing may occur to verify accessibility.

ICT products and services may be tested by a Section 508-specific organization to validate they align with Section 508 Standards and best practices. This organization can often provide guidance to developers on best practices for Section 508 conformance and meeting specific standards. The Section 508 Program Manager can provide more information on the types of testing supported by a specific agency.

IT managers should work with their agency management and Section 508 Program Manager(s) to determine which types of testing their agency or organization supports. The DHS Trusted Tester Certification Program is available for use by Federal agencies as well as Industry professionals. This program was created to provide a stable testing environment for Section 508 evaluation.

Content Providers

Content providers create and deliver ICT that meet Section 508 Standards. When working with software developers, content providers should provide ICT content that is Section 508 conformant, such as tagging images with alternative text for screen readers.



By including Section 508 in the content development process, development time may increase, but testing and remediation time decreases. This shortens the time to delivery and makes sure recipients are able to access the information.

Build Conformance from the Beginning

Regardless of whether you use contractors or agency staff to develop digital services and technology, Section 508 conformance needs to be addressed. Whether using waterfall, agile, or any other development approach, Section 508 conformance is dependent upon your ability to incorporate accessibility needs from the very beginning of the development effort (conceptualization and planning) and on through design, development, testing, deployment, continuous enhancements, and maintenance activities.

Failure to consider Section 508 conformance throughout the entire development life cycle will likely relegate 508 conformance considerations to the end of the project, when it costs the most to fix accessibility problems.



Knowledge Check

Your co-worker has been asked to post a memo in PDF format on the agency's Intranet site. She can't remember what her responsibilities are for posting this type of content. Which of the following statements describe the best advice you can give her?

- A. She can post the content without verifying Section 508 conformance since she is not a software developer.
- B. Since the content is shared on an agency intranet site, she will need to make sure the content is conformant before posting it.
- C. Since PDF content is always accessible anyway, she doesn't have to check for conformance before posting.
- D. She can post the document without verifying Section 508 conformance since she's posting it on an Intranet site and not a public-facing Internet page.

Knowledge Check Feedback

The correct answer is B. Section 508 Standards apply to shared content such as those posted on a Website, including the Internet or an agency Intranet, and content saved to agency share drives and CDs. You need to be sure these documents meet the Section 508 Standards.



Maintaining and Using ICT Products and Services

Next, you'll learn about Section 508 responsibilities when maintaining and using ICT products and services.

ICT products must meet Section 508 Standards when maintained or used 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, Website and Website content updates, and hardware upgrades.

ICT Accessibility Examples

Below are some examples of ICT accessibility needs.

An agency awards a contract to a vendor to review and update a software application. The contract requirements stipulate that Section 508 Standards apply to each release of the updated software application and the vendor will use Section 508 testing methods (Trusted Tester) to validate that the software is Section 508 conformant before government acceptance.

An agency awards a maintenance contract to update its Website. The Website is ICT covered under the Section 508 Standards. The contract requirements specify that the vendor deliverables are Section 508 conformant. During the contract period all future updates to the Website must also be Section 508 conformant.

An agency has a hardware contract with a maintenance option to replace the hardware every 3 years. The contract stipulates that replacement hardware must conform to Section 508 requirements and be tested for conformance before government acceptance.

An agency approves the use of a social media application that is free. In order for the agency to use this application it must also be Section 508 conformant.

Lesson Summary

You've reached the end of this lesson. In review, you learned that:

- Section 508 Standards compliance greatly reduces risks to your agency and the Federal government
- When Section 508 responsibilities are not met, the agency is held accountable
- Employees and government contractors have specific job-related responsibilities for meeting Section 508 Standards

You should now be able to:

- Identify Section 508 responsibilities when procuring ICT products or services
- Identify Section 508 responsibilities when developing or authoring ICT products or services
- Identify Section 508 responsibilities when maintaining and using ICT products or services



Getting Help: Where Can I Go for More Information?

Where can you go to find out more about improving access to ICT for people with disabilities? The final lesson in this course explains what a person with a disability can do if he or she has a problem accessing ICT covered under Section 508.

Key Questions

When you've completed the lesson, you will be able to:

- Describe the differences between Section 504 and Section 508
- Explain what to do if you or one of your team members has a problem accessing ICT
- Describe the types of assistance your agency's Section 508 Program Manager may provide

Differences Between Section 504 and Section 508

Conformance with Section 508 standards does not require or guarantee complete access to all AT products. In addition, Section 508 conformance does not necessarily mean all of 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 a person with a disability has an ICT-related issue that needs resolution.

Section 504

Section 504 is a part of the Rehabilitation Act of 1973 that prohibits job discrimination and requires employers to make reasonable accommodation 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.

Example situations when Section 504 applies:

- An agency hires a new employee who is blind. For her to do her job, the agency is required to provide her an accommodation such as screen reader software which provides her access to ICT she needs to perform her work assignments.
- A veteran who cannot hear attends group counseling sessions at a VA Medical Center. The group leader makes sure a sign language interpreter is present at each session.
- An agency reconfigures its office space as it hires new staff and contractors. One employee uses a wheelchair that does not fit into the new office configuration. The department modifies the office configuration so he can get to his work station while using his wheelchair.



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. Example situations when Section 508 applies:

- An agency hires a new employee who is blind. Because the agency has tested its online training courses to make sure they are 508 conformant, the new employee is able to complete required training during her orientation.
- A veteran who is deaf attends an online group counseling session. Because the agency has procured 508 conformant webinar hosting software, the veteran is able to participate fully in the sessions.
- An employee provides benefits assistance in a call center. At times, she uses online forms to review information to assist a caller. The employee cannot use a mouse and relies on her keyboard. The online forms have been developed to meet the Section 508 Standards, and a mouse is not required to use the forms. The employee is able to do her job.

Dealing with an Accessibility Issue

What should you do if you are an employee with a disability who is having problems accessing ICT at work? As an employee with a disability, it is not your job to determine Section 508 conformance. But, if you're having trouble doing your job because of ICT that you feel is inaccessible, you can reach out to agency experts and resources for help:

- Discuss accessibility issues with your supervisor
- Focus on the specific problem if you believe the issue is related to ICT

Laura

Last year a new version of our HR system was released. We all use this system for our time sheets, requesting time off, reviewing benefits information and things like that. The part of the application where we enter sick time includes a form to enter your information. I would get halfway through the form and get stuck — you could not complete it without a mouse! I talked to my supervisor and together we got in touch with the IT department to resolve the problem. They were very helpful in reworking the form so those of us who only use a keyboard could complete it.



If You Have an Issue

A Federal employee or a member of the public with a disability can file a complaint against a Federal agency when an ICT system or product is not Section 508 conformant.

If you are exploring information related to filing a complaint, contact your agency Equal Employment Opportunity (EEO) office, Section 504 Coordinator, or Section 508 Program Manager to learn about the complaint process in place at your agency.

Section 508 Program Managers

Section 508 Program Managers (or Section 508 Coordinators) are the main points of contact for information concerning ICT accessibility issues and solutions. They are responsible for organizing and supporting the implementation of Section 508 within their assigned departments and agencies.

The General Services Administration (GSA) maintains a [list of Federal Section 508 Program Managers](#).

General Section 508 Resources

Select a resource to open the web page or document in a new window.

Section 508 Standards

- [Section 508 Standards](#)
- [Subpart 39.2—Electronic and Information Technology](#)
- [Section 508 Website](#)

* **External Link Disclaimer:**

The external resources provided are for reference purposes only and are not an endorsement by a specific Federal agency.

Lesson Summary

Before moving on, take a few minutes to think about what you've learned. Now you should be able to:

- Describe the difference between Section 504 and Section 508
- Explain what to do if you or one of your team members has a problem accessing ICT
- Describe the types of assistance the Section 508 Program Manager or Coordinator can provide