Federal Highway Administration Form 4260.1: Section 508 Information and Communication Technology (ICT) Standardized Conformance Criteria

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Part 1: Electronic Content

36 CFR 1194 Appendix A

Content is defined as “Electronic information and data, as well as the encoding that defines its structure, presentation, and interactions.” All public-facing electronic content and internal electronic content defined as internal agency communication under the 508 Refresh will be validated against this criteria.

All electronic content will conform to Web Content Accessibility Guidelines (WCAG) 2.0 levels A and AA with the noted exceptions and wording substitution for non-web content.

1: Making ICT Perceivable for Everyone: Deliver ICT that users can perceive using any sense - sight, hearing, and/or touch.

1.1 Text Alternatives: Provide text alternatives for any non-text content.

Complete or N/A	Success Criteria	Techniques
	1.1.1 Non-text Content (Level A)	• WCAG 2.0 discussion on SC 1.1.1

Test Results and Comments: Can be provided in a separate document.

1.2 Audio and Video Files: Provide alternatives for audio and video files. NOTE: If the audio or video is designated as an alternative to text (e.g., an audio or sign language version of a web page, for example), and labeled as such.

Complete or N/A	Success Criteria	Techniques
	1.2.1 Prerecorded Audio-only and Video-only (Level A)	• WCAG 2.0 discussion on SC 1.2.1
	1.2.2 Captions (Prerecorded) (Level A)	• WCAG 2.0 discussion on SC 1.2.2
	1.2.3 Audio Description or Media Alternative (Prerecorded) (Level A)	• WCAG 2.0 discussion on SC 1.2.3
	1.2.4 Captions (Live) (Level AA)	• WCAG 2.0 discussion on SC 1.2.4
	1.2.5 Audio Description (Prerecorded) (Level AA)	• WCAG 2.0 discussion on SC 1.2.5

Test Results and Comments: Can be provided in a separate document.

1.3 Content is Adaptable to Users' Needs: Create content that can be presented in different ways (e.g., simpler layout) without losing information or structure.

Complete or N/A	Success Criteria	Techniques
	1.3.1 Info and Relationships (Level A)	• WCAG 2.0 discussion on SC 1.3.1
	1.3.2 Meaningful Sequence (Level A)	• WCAG 2.0 discussion on SC 1.3.2
	1.3.3 Sensory Characteristics (Level A)	• WCAG 2.0 discussion on SC 1.3.3

Test Results and Comments: Can be provided in a separate document.

1.4 Make It Easier for Users to See and Hear Content: Make it easier for users to see and hear content including separating foreground from background.

Complete or N/A	Success Criteria	Techniques
	1.4.1 Use of Color (Level A)	• WCAG 2.0 discussion on SC 1.4.1
	1.4.2 Audio Control (Level A)	• WCAG 2.0 discussion on SC 1.4.2
	1.4.3 Contrast (Minimum) (Level AA)	• WCAG 2.0 discussion on SC 1.4.3
	1.4.4 Resize text (Level AA)	• WCAG 2.0 discussion on SC 1.4.4
	1.4.5 Images of Text (Level AA)	• WCAG 2.0 discussion on SC 1.4.5

Test Results and Comments: Can be provided in a separate document.

2: Ensure Operability for All Users: Interface forms, controls, and navigation are operable, for example all users can use your website without a mouse.

2.1 Keyboard Accessibility: Make all functionality available from a keyboard.

Complete or N/A	Success Criteria	Techniques
	2.1.1 Keyboard (Level A)	• WCAG 2.0 discussion on SC 2.1.1
	2.1.2 No Keyboard Trap (Level A)	• WCAG 2.0 discussion on SC 2.1.2

Test Results and Comments: Can be provided in a separate document.

2.2 Provide Users Enough Time to Read and Use Content: Some users may need more time than expected to complete a task.

Complete or N/A	Success Criteria	Techniques
	2.2.1 Timing Adjustable (Level A)	• W3C discussion on WCAG 2.0 SC 2.2.1
	2.2.2 Pause, Stop, Hide (Level A)	• W3C discussion on WCAG 2.0 SC 2.2.2

Test Results and Comments: Can be provided in a separate document.

2.3 Prevent Seizures: Do Not Design Content in a Way That is Known to Cause Seizures or Physical Reactions:

Complete or N/A	Success Criteria	Techniques
	2.3.1 Three Flashes or Below Threshold (Level A)	• W3C discussion on WCAG 2.0 SC 2.3.1

Test Results and Comments: Can be provided in a separate document.

2.4 Navigation: Provide ways to help users navigate, find content, and determine where they are.

Complete or N/A	Success Criteria	Techniques
	2.4.1 Bypass Blocks (Level A)	• W3C discussion on WCAG 2.0 SC 2.4.1
	2.4.2 Page Titled (Level A)	• W3C discussion on WCAG 2.0 SC 2.4.2
	2.4.3 Focus Order (Level A)	• W3C discussion on WCAG 2.0 SC 2.4.3
	2.4.4 Link Purpose (In Context) (Level A)	• W3C discussion on WCAG 2.0 SC 2.4.4
	2.4.5 Multiple Ways (Level AA)	• W3C discussion on WCAG 2.0 SC 2.4.5
	2.4.6 Headings and Labels (Level AA)	• W3C discussion on WCAG 2.0 SC 2.4.6
	2.4.7 Focus Visible (Level AA)	• W3C discussion on WCAG 2.0 SC 2.4.7

Test Results and Comments: Can be provided in a separate document.

3: Understandability: Information and the operation of user interface must be understandable.

3.1 Readability: Make text content readable and understandable.

Complete or N/A	Success Criteria	Techniques
	3.1.1 Language of Page (Level A)	• W3C discussion on WCAG 2.0 SC 3.1.1
	3.1.2 Language of Parts (Level AA)	• W3C discussion on WCAG 2.0 SC 3.1.2

Test Results and Comments: *Can be provided in a separate document.*

3.2 Predictability: Make Web pages appear and operate in predictable ways.

Complete or N/A	Success Criteria	Techniques
	3.2.1 On Focus (Level A)	• W3C discussion on WCAG 2.0 SC 3.2.1
	3.2.2 On Input (Level A)	• W3C discussion on WCAG 2.0 SC 3.2.2
	3.2.3 Consistent Navigation (Level AA)	• W3C discussion on WCAG 2.0 SC 3.2.3
	3.2.4 Consistent Identification (Level AA)	• W3C discussion on WCAG 2.0 SC 3.2.4

Test Results and Comments: Can be provided in a separate document.

3.3 Help Users Avoid and Correct Mistakes on Forms: Provide input assistance.

Complete or N/A	Success Criteria	Techniques
	3.3.1 Error Identification (Level A)	• W3C discussion on WCAG 2.0 SC 3.3.1
	3.3.2 Labels or Instructions (Level A)	• W3C discussion on WCAG 2.0 SC 3.3.2
	3.3.3 Error Suggestion (Level AA)	• W3C discussion on WCAG 2.0 SC 3.3.3
	3.3.4 Error Prevention (Legal, Financial, Data) (Level AA)	• W3C discussion on WCAG 2.0 SC 3.3.4

Test Results and Comments: Can be provided in a separate document.

4: Create Robust Content that can be Widely Used: Ensure Content Can be Used Reliably by a Wide Variety of User Agents, Including Assistive Technologies.

4.1 Maximize Compatibility with Current and Future User Technologies: "Users will operate a broad range of different technologies to view ICT. Make it current and compatible with a full spectrum of technical advances.

Complete or N/A	Success Criteria	Techniques
	4.1.1 Parsing (Level A)	• W3C discussion on WCAG 2.0 SC 4.1.1
	4.1.2 Name, Role, Value (Level A)	• W3C discussion on WCAG 2.0 SC 4.1.2

Test Results and Comments: Can be provided in a separate document.

Part 2: {Reserved}

Part 3: Functional Performance Criteria

36 CFR 1194 Appendix C, Chapter 3

For use in cases of equivalent facilitation. Where the requirements in Chapters 4 and 5 do not address one or more functions of ICT, the functions not addressed shall conform to the Functional Performance Criteria specified in Chapter 3.

Complete or N/A	Conformance	Techniques
	302.1 Without Vision	Where a visual mode of operation is provided, ICT shall provide at least one mode of operation that does not require user vision.
	302.2 With Limited Vision	Where a visual mode of operation is provided, ICT shall provide at least one mode of operation that enables users to make use of limited vision.
	302.3 Without Perception of Color	Where a visual mode of operation is provided, ICT shall provide at least one visual mode of operation that does not require user perception of color.
	302.4 Without Hearing	Where an audible mode of operation is provided, ICT shall provide at least one mode of operation that does not require user hearing.
	302.5 With Limited Hearing	Where an audible mode of operation is provided, ICT shall provide at least one mode of operation that enables users to make use of limited hearing.
	302.6 Without Speech	Where speech is used for input, control, or operation, ICT shall provide at least one mode of operation that does not require user speech.
	302.7 With Limited Manipulation	Where a manual mode of operation is provided, ICT shall provide at least one mode of operation that does not require fine motor control or simultaneous manual operations.
	302.8 With Limited Reach and Strength	Where a manual mode of operation is provided, ICT shall provide at least one mode of operation that is operable with limited reach and limited strength.
	302.9 With Limited Language, Cognitive, and Learning Abilities	ICT shall provide features making its use by individuals with limited cognitive, language, and learning abilities simpler and easier.

Test Results and Comments: Can be provided in a separate document.

Part 4: Hardware

36 CFR 1194 Appendix C, Chapter 4

4.1 General

Where components of ICT are hardware and transmit information or have a user interface, such components shall conform to the requirements in this section.

Exception: Hardware that is assistive technology shall not be required to conform to the requirements of this section.

4.1.1 Scope The requirements of this section apply to ICT that is hardware where required by Section 508.

Complete the following sections.

4.2 Closed Functionality

Closed Functionality is characteristics that limit functionality or prevent a user from attaching or installing assistive technology. Examples of ICT with closed functionality are self-service machines, information kiosks, set-top boxes, fax machines, calculators, and computers that are locked down so that users may not adjust settings due to a policy such as Desktop Core Configuration.

4.2.1 General: ICT with closed functionality shall be operable without requiring the user to attach or install assistive technology other than personal headsets or other audio couplers and shall conform to Part 4.2.

Test Results and Comments: Can be provided in a separate document.

4.2.2 Speech-Output Enabled: ICT with a display screen shall be speech-output enabled for full and independent use by individuals with vision impairments.

Exceptions:

1. Variable message signs conforming to 4.2.5 shall not be required to be speech-output enabled. Variable Message Signs (VMS) a*re* on-interactive electronic signs with scrolling, streaming, or paging-down capability. An example of a VMS is an electronic message board at a transit station that displays the gate and time information associated with the next train arrival.
2. Speech output shall not be required where ICT display screens only provide status indicators and those indicators conform to 4.9.
3. Where speech output cannot be supported due to constraints in available memory or processor capability, ICT shall be permitted to conform to 4.9 in lieu of 4.2.2.
4. Audible tones shall be permitted instead of speech output where the content of user input is not displayed as entered for security purposes, including, but not limited to, asterisks representing personal identification numbers.
5. Speech output shall not be required for: the machine location; date and time of transaction; customer account number; and the machine identifier or label.
6. Speech output shall not be required for advertisements and other similar information unless they convey information that can be used for the transaction being conducted.

Complete or N/A	Conformance	Techniques
	4.2.2.1 Information Displayed On-Screen	Speech output shall be provided for all information displayed on-screen.
	4.2.2.2 Transactional Outputs	Where transactional outputs are provided, the speech output shall audibly provide all information necessary to verify a transaction.
	4.2.2.3 Speech Delivery Type and Coordination	Speech output shall be delivered through a mechanism that is readily available to all users, including, but not limited to, an industry standard connector or a telephone handset. Speech shall be recorded or digitized human, or synthesized. Speech output shall be coordinated with information displayed on the screen.
	4.2.2.4 User Control	Speech output for any single function shall be automatically interrupted when a transaction is selected. Speech output shall be capable of being repeated and paused.
	4.2.2.5 Braille Instructions	Where speech output is required by 402.2, braille instructions for initiating the speech mode of operation shall be provided. Braille shall be contracted and shall conform to 36 CFR part 1191, Appendix D, Section 703.3.1. Exception: Devices for personal use shall not be required to conform to 4.2.2.5. Desk phone, personal phone, etc.

Test Results and Comments: Can be provided in a separate document.

4.2.3 Volume: ICT that delivers sound, including speech output required by 4.2.2, shall provide volume control and output amplification conforming to this section.

Exception: ICT conforming to 4.12.2 shall not be required to conform to this section.

Complete or N/A	Conformance	Techniques
	402.3.1 Private Listening	Where ICT provides private listening, it shall provide a mode of operation for controlling the volume. Where ICT delivers output by an audio transducer typically held up to the ear, a means for effective magnetic wireless coupling to hearing technologies shall be provided. The requirement for “effective magnetic wireless” could be met a few ways: − Headphone jack − Telephone style handset − Bluetooth
	402.3.2 Non-private Listening	Where ICT provides non-private listening, incremental volume control shall be provided with output amplification up to a level of at least 65 dB. A function shall be provided to automatically reset the volume to the default level after every use.

Test Results and Comments: Can be provided in a separate document.

4.2.4 Characters on Display Screens

Complete or N/A	Conformance	Techniques
	4.2.4.1 Font	At least one mode of characters displayed on the screen shall be in a sans serif font.
	4.2.4.2 Font Size	Where ICT does not provide a screen enlargement feature, characters shall be 3/16 inch (4.8 mm) high minimum based on the uppercase letter “I”.
	4.2.4.3 Font Contrast	Characters shall contrast with their background with either light characters on a dark background or dark characters on a light background.

Test Results and Comments: Can be provided in a separate document.

4.2.5 Characters on Variable Message Signs

Characters on variable message signs shall conform to section 703.7 Variable Message Signs of ICC A117.1-2009.

Test Results and Comments: Can be provided in a separate document.

4.3 Biometrics

4.3.1 General: Where provided, biometrics shall not be the only means for user identification or control.

Exception: Where at least two biometric options that use different biological characteristics are provided, ICT shall be permitted to use biometrics as the only means for user identification or control.

Test Results and Comments: Can be provided in a separate document.

4.4 Preservation of Information Provided for Accessibility

4.4.1 General: ICT that transmits or converts information or communication shall not remove non-proprietary information provided for accessibility or shall restore it upon delivery.

Test Results and Comments: Can be provided in a separate document.

4.5 Privacy

4.5.1 General: The same degree of privacy of input and output shall be provided to all individuals. When speech output required by 4.2.2 is enabled, the screen shall not blank automatically.

Test Results and Comments: Can be provided in a separate document.

4.6 Standard Connections

4.6.1 General: Where data connections used for input and output are provided, at least one of each type of connection shall conform to industry standard non-proprietary formats.

Test Results and Comments: Can be provided in a separate document.

4.7 Operable Parts

4.7.1 General: Where provided, operable parts used in the normal operation of ICT shall conform to this section.

4.7.2 Contrast:

Complete or N/A	Conformance	Techniques
	4.7.2.1 Tactilely Discernible	Where provided, keys and controls shall contrast visually from background surfaces.
	4.7.2.2 Alphabetic Keys	Characters and symbols shall contrast visually from background surfaces with either light characters or symbols on a dark background or dark characters or symbols on a light background.

Test Results and Comments: Can be provided in a separate document.

4.7.3 Input Controls

At least one input control conforming to this section shall be provided for each function.

Exception: Devices for personal use with input controls that are audibly discernable without activation and operable by touch shall not be required to conform to this section.

Complete or N/A	Conformance	Techniques
	4.7.3.1 Tactilely Discernible	Input controls shall be operable by touch and tactilely discernible without activation.
	4.7.3.2 Alphabetic Keys	Where provided, individual alphabetic keys shall be arranged in a QWERTY-based keyboard layout and the “F” and “J” keys shall be tactilely distinct from the other keys.
	4.7.3.3 Numeric Keys	Where provided, numeric keys shall be arranged in a 12-key ascending or descending keypad layout. The number five key shall be tactilely distinct from the other keys. Where the ICT provides an alphabetic overlay on numeric keys, the relationships between letters and digits shall conform to ITU-T Recommendation E.161.

Test Results and Comments: Can be provided in a separate document.

4.7.4 Key Repeat: Where a keyboard with key repeat is provided, the delay before the key repeat feature is activated shall be fixed at, or adjustable to, 2 seconds minimum.

Test Results and Comments: Can be provided in a separate document.

4.7.5 Timed Response: Where a timed response is required, the user shall be alerted visually, as well as by touch or sound, and shall be given the opportunity to indicate that more time is needed.

Test Results and Comments: Can be provided in a separate document.

4.7.6 Operation: At least one mode of operation shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 5 pounds (22.2 N) maximum.

Test Results and Comments: Can be provided in a separate document.

4.7.7 Tickets: Fare Cards, and Keycards. Where tickets, fare cards, or keycards are provided, they shall have an orientation that is tactilely discernible if orientation is important to further use of the ticket, fare card, or keycard.

Test Results and Comments: Can be provided in a separate document.

4.7.8 Reach Height and Depth.

Stationary ICT – multifunction printer

At least one of each type of operable part of stationary ICT shall be at a height conforming to 4.7.8.2 or 4.7.8.3 according to its position established by the vertical reference plane specified in 4.7.8.1 for a side reach or a forward reach. Operable parts used with speech output required by 4.2.2 shall not be the only type of operable part complying with 4.7.8 unless that part is the only operable part of its type.

4.7.8.1 Vertical Reference Plane: Operable parts shall be positioned for a side reach or a forward reach determined with respect to a vertical reference plane. The vertical reference plane shall be located in conformance to this section.

Complete or N/A	Conformance	Techniques
	4.7.8.1.1 Vertical Plane for Side Reach	Where a side reach is provided, the vertical reference plane shall be 48 inches (1220 mm) long minimum.
	4.7.8.1.2 Vertical Plane for Forward Reach	Where a forward reach is provided, the vertical reference plane shall be 30 inches (760 mm) long minimum.

Test Results and Comments: Can be provided in a separate document.

4.7.8.2 Side Reach: Operable parts of ICT providing a side reach shall conform to this section. The vertical reference plane shall be centered on the operable part and placed at the leading edge of the maximum protrusion of the ICT within the length of the vertical reference plane. Where a side reach requires a reach over a portion of the ICT, the height of that portion of the ICT shall be 34 inches (865 mm) maximum.

Complete or N/A	Conformance	Techniques
	4.7.8.2.1 Unobstructed Side Reach	Where the operable part is located 10 inches (255 mm) or less beyond the vertical reference plane, the operable part shall be 48 inches (1220 mm) high maximum and 15 inches (380 mm) high minimum above the floor.
	4.7.8.2.2 Obstructed Side Reach	Where the operable part is located more than 10 inches (255 mm), but not more than 24 inches (610 mm), beyond the vertical reference plane, the height of the operable part shall be 46 inches (1170 mm) high maximum and 15 inches (380 mm) high minimum above the floor. The operable part shall not be located more than 24 inches (610 mm) beyond the vertical reference plane.

Test Results and Comments: Can be provided in a separate document.

4.7.8.3 Forward Reach: Operable parts of ICT providing a forward reach shall conform to 4.7.8.3.1 or 4.7.8.3.2. The vertical reference plane shall be centered, and intersect with, the operable part. Where a forward reach allows a reach over a portion of the ICT, the height of that portion of the ICT shall be 34 inches (865 mm) maximum.

4.7.8.3.1 Unobstructed Forward Reach: Where the operable part is located at the leading edge of the maximum protrusion within the length of the vertical reference plane of the ICT, the operable part shall be 48 inches (1220 mm) high maximum and 15 inches (380 mm) high minimum above the floor.

Test Results and Comments: Can be provided in a separate document.

4.7.8.3.2 Obstructed Forward Reach: Where the operable part is located beyond the leading edge of the maximum protrusion within the length of the vertical reference plane, the operable part shall conform to 407.8.3.2. The maximum allowable forward reach to an operable part shall be 25 inches (635 mm).

<table>
<tr><th>Complete or N/A</th><th>Conformance</th><th>Techniques</th></tr>
<tr><td></td><td>4.7.8.3.2.1 Operable Part Height for ICT with Obstructed Forward Reach</td><td>The height of the operable part shall conform to the following measurements:

<table><tr><th>Reach Depth</th><th>Operable Part Height</th></tr><tr><td>Less than 20 inches (510 mm)</td><td>48 inches (1220 mm) maximum</td></tr><tr><td>20 inches (510 mm) to 25 inches (635 mm)</td><td>44 inches (1120 mm) maximum</td></tr></table></td></tr>
<tr><td></td><td>4.7.8.3.2.2 Knee and Toe Space under ICT with Obstructed Forward Reach</td><td>Knee and toe space under ICT shall be 27 inches (685 mm) high minimum, 25 inches (635 mm) deep maximum, and 30 inches (760 mm) wide minimum and shall be clear of obstructions.

Exceptions:

1. Toe space shall be permitted to provide a clear height of 9 inches (230 mm) minimum above the floor and a clear depth of 6 inches (150 mm) maximum from the vertical reference plane toward the leading edge of the ICT.
2. At a depth of 6 inches (150 mm) maximum from the vertical reference plane toward the leading edge of the ICT, space between 9 inches (230 mm) and 27 inches (685 mm) minimum above the floor shall be permitted to reduce at a rate of 1 inch (25 mm) in depth for every 6 inches (150 mm) in height.</td></tr>
</table>

Test Results and Comments: Can be provided in a separate document.

4.8 Display Screens

Complete or N/A	Conformance	Techniques
	408.1 General	Where provided, display screens shall conform to this section.
	408.2 Visibility	Where stationary ICT provides one or more display screens, at least one of each type of display screen shall be visible from a point located 40 inches (1015 mm) above the floor space where the display screen is viewed.
	408.3 Flashing	Where ICT emits lights in flashes, there shall be no more than three flashes in any one-second period. Exception: Flashes that do not exceed the general flash and red flash thresholds defined in WCAG 2.0 are not required to conform to this section.

Test Results and Comments: Can be provided in a separate document.

4.9 Status Indicators: Where provided, status indicators shall be discernible visually and by touch or sound.

Test Results and Comments: Can be provided in a separate document.

4.10 Color Coding: Where provided, color coding shall not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.

Test Results and Comments: Can be provided in a separate document.

4.11 Audible Signals: Where provided, audible signals or cues shall not be used as the only means of conveying information, indicating an action, or prompting a response.

Test Results and Comments: Can be provided in a separate document.

4.12 ICT with Two-Way Voice Communication

4.12.1 General: ICT that provides two-way voice communication shall conform to this section.

4.12.2 Volume Gain ICT that provides two-way voice communication shall conform to this section.

Complete or N/A	Conformance	Techniques
	4.12.2.1 Volume Gain for Wireline Telephones	Volume gain conforming to 47 CFR 68.317 shall be provided on analog and digital wireline telephones.
	4.12.2.2 Volume Gain for Non-Wireline ICT	A method for increasing volume shall be provided for non-wireline ICT.

Test Results and Comments: Can be provided in a separate document.

4.12.3 Interference Reduction and Magnetic Coupling: Where ICT delivers output by a handset or other type of audio transducer that is typically held up to the ear, ICT shall reduce interference with hearing technologies and provide a means for effective magnetic wireless coupling in conformance with 412.3.1 or 412.3.2.

Complete or N/A	Conformance	Techniques
	4.12.3.1 Wireless Handsets	ICT in the form of wireless handsets shall conform to ANSI/IEEE C63.19-2011.
	4.12.3.2 Wireline Handsets	ICT in the form of wireline handsets, including cordless handsets, shall conform to TIA-1083-B.

Test Results and Comments: Can be provided in a separate document.

4.12.4 Digital Encoding of Speech: ICT in IP-based networks shall transmit and receive speech that is digitally encoded in the manner specified by ITU-T Recommendation G.722.2 (incorporated by reference, see 702.7.2) or IETF RFC 6716 (incorporated by reference, see 702.8.1).

Test Results and Comments: Can be provided in a separate document.

4.12.5 Real-Time Text Functionality [Reserved]. Pending Rulemaking by the FCC.

4.12.6 Caller ID: Where provided, caller identification and similar telecommunications functions shall be visible and audible.

Test Results and Comments: Can be provided in a separate document.

4.12.7 Video Communication: Where ICT provides real-time video functionality, the quality of the video shall be sufficient to support communication using sign language.

Test Results and Comments: Can be provided in a separate document.

4.12.8 Legacy TTY Support ICT equipment or systems with two-way voice communication that do not themselves provide TTY functionality shall conform to this section.

Complete or N/A	Conformance	Techniques
	412.8.1 TTY Connectability	ICT shall include a standard non-acoustic connection point for TTYs.
	412.8.2 Voice and Hearing Carry Over	ICT shall provide a microphone capable of being turned on and off to allow the user to intermix speech with TTY use.
	412.8.3 Signal Compatibility	ICT shall support all commonly used cross-manufacturer non-proprietary standard TTY signal protocols where the system interoperates with the Public Switched Telephone Network (PSTN).
	412.8.4 Voice Mail and Other Messaging Systems	Where provided, voice mail, auto-attendant, interactive voice response, and caller identification systems shall be usable with a TTY.

Test Results and Comments: Can be provided in a separate document.

4.13 Closed Caption Processing Technologies

4.13.1 General.: Where ICT displays or processes video with synchronized audio, ICT shall provide closed caption processing technology that conforms to this section

Complete or N/A	Conformance	Techniques
	4.13.1.1 Decoding and Display of Closed Captions	Players and displays shall decode closed caption data and support display of captions.
	4.13.1.2 Pass-Through of Closed Caption Data	Cabling and ancillary equipment shall pass through caption data.

Test Results and Comments: Can be provided in a separate document.

4.14 Audio Description Processing Technologies

4.14.1 General: Where ICT displays or processes video with synchronized audio, ICT shall provide audio description processing technology conforming to this section.

Complete or N/A	Conformance	Techniques
	4.14.1.1 Digital Television Tuners.	Digital television tuners shall provide audio description processing that conforms to ATSC A/53 Digital Television Standard, Part 5 (2014) (incorporated by reference, see 702.2.1). Digital television tuners shall provide processing of audio description when encoded as a Visually Impaired (VI) associated audio service that is provided as a complete program mix containing audio description according to the ATSC A/53 standard.
	4.14.1.2 Other ICT.	ICT other than digital television tuners shall provide audio description processing.

Test Results and Comments: Can be provided in a separate document.

4.15 User Controls for Captions and Audio Descriptions

4.15.1 General: Where ICT displays video with synchronized audio, ICT shall provide user controls for closed captions and audio descriptions conforming to this section.

Exception: Devices for personal use shall not be required to conform to this section provided that captions and audio descriptions can be enabled through system-wide platform settings.

Complete or N/A	Conformance	Techniques
	415.1.1 Caption Controls	Where ICT provides operable parts for volume control, ICT shall also provide operable parts for caption selection.
	415.1.2 Audio Description Controls.	Where ICT provides operable parts for program selection, ICT shall also provide operable parts for the selection of audio description.

Test Results and Comments: Can be provided in a separate document.

Part 5: Software

36 CFR 1194 Appendix C, Chapter 4

Software is defined as ”programs, procedures, rules, and related data and documentation that direct the use and operation of ICT and instruct it to perform a given task or function. Software includes, but is not limited to, applications, non-Web software, and platform software.” Software Tools are “software for which the primary function is the development of other software.” This includes software that is integral to the use of telecommunications functions of telecommunications equipment or customer premises equipment and has a user interface.

Where components of ICT are software and *transmit information or have a user interface*, such components will conform to these requirements.

Mobile software is treated the same as other software.

Exceptions/Substitutions:

- Software that is assistive technology and that supports the accessibility services of the platform shall not be required to conform.
- Non-Web software shall not be required to conform to the following four Success Criteria in WCAG 2.0: 2.4.1 Bypass Blocks; 2.4.5 Multiple Ways; 3.2.3 Consistent Navigation; and 3.2.4 Consistent Identification.
- Word Substitution when Applying WCAG to Non-Web Software. For non-Web software, wherever the term “Web page” or “page” appears in WCAG 2.0 Level A and AA Success Criteria and Conformance Requirements, the term “software” shall be substituted for the terms “Web page” and “page”. In addition, in Success Criterion in 1.4.2, the phrase “in software” shall be substituted for the phrase “on a Web page.
- Where non-Web software requires multiple steps to accomplish an activity, all software related to the activity to be accomplished shall conform to WCAG 2.0 with the exceptions and substitutions noted above.
- Web software/applications only needs to conform to Level A and Level AA Success Criteria and Conformance Requirements in WCAG 2.0.

5.1 WCAG Conformance: User interface components, as well as the content of platforms and applications, shall conform to Level A and Level AA Success Criteria and Conformance Requirements in WCAG 2.0 with the noted exceptions and wording substitution, software for web page for non-web software.

Complete or N/A	Conformance	Techniques
	5.1.1 WCAG 2.0, A and AA	Complete the WCAG 2.0 conformance section found in Part 1: Electronic Content.

Test Results and Comments: Can be provided in a separate document.

5.2 Interoperability with Assistive Technology:

5.2.1 Software shall interoperate with assistive technology.

Exception: Software that conforms with 36 CFR 1194 Appendix C, Chapter 402 (software with closed functionality) does not need to conform to this section. Treat the system as a closed hardware system – kiosk, mobile phone where users can't add their own assistive technologies.

Complete the following sections.

5.2.2 Documented Accessibility Features : Software with platform features defined in platform documentation as accessibility features shall conform to:

Complete or N/A	Conformance	Techniques
	5.2.2.1 User Control of Accessibility Features	Platform software shall provide user control over platform features that are defined in the platform documentation as accessibility features. System administrators cannot disable documented accessibility features of platforms.
	5.2.2.2 No Disruption of Accessibility Features.	Software shall not disrupt platform features that are defined in the platform documentation as accessibility features.

Test Results and Comments: Can be provided in a separate document.

5.2.3 Accessibility Services: Platform software and software tools that are provided by the platform developer shall provide a documented set of accessibility services that support applications running on the platform to interoperate with assistive technology. Applications that are also platforms shall expose the underlying platform accessibility services or implement other documented accessibility services.

- Programmatically determinable, programmatically set etc., – the user can get to it without a mouse.

Complete or N/A	Conformance	Techniques
	5.2.3.1 Object Information	The object role, state(s), properties, boundary, name, and description shall be programmatically determinable.
	5.2.3.2 Modification of Object Information	States and properties that can be set by the user shall be capable of being set programmatically, including through assistive technology.
	5.2.3.3 Row, Column, and Headers	If an object is in a data table, the occupied rows and columns, and any headers associated with those rows or columns, shall be programmatically determinable.
	5.2.3.4 Values	Any current value(s), and any set or range of allowable values associated with an object, shall be programmatically determinable.
	5.2.3.5 Modification of Values	Values that can be set by the user shall be capable of being set programmatically, including through assistive technology.
	5.2.3.6 Label Relationships	Any relationship that a component has as a label for another component, or of being labeled by another component, shall be programmatically determinable.
	5.2.3.7 Hierarchical Relationships	Any hierarchical (parent-child) relationship that a component has as a container for, or being contained by, another component shall be programmatically determinable.
	5.2.3.8 Text.	The content of text objects, text attributes, and the boundary of text rendered to the screen, shall be programmatically determinable. No images of text.
	5.2.3.9 Modification of Text	Text that can be set by the user shall be capable of being set programmatically, including through assistive technology.
	5.2.3.10 List of Actions	A list of all actions that can be executed on an object shall be programmatically determinable.
	5.2.3.11 Actions on Objects	Applications shall allow assistive technology to programmatically execute available actions on objects.
	5.2.3.12 Focus Cursor	Applications shall expose information and mechanisms necessary to track focus, text insertion point, and selection attributes of user interface components. The focus is visible.
	5.2.3.13 Modification of Focus Cursor	Focus, text insertion point, and selection attributes that can be set by the user shall be capable of being set programmatically, including through the use of assistive technology.
	5.2.3.14 Event Notification	Notification of events relevant to user interactions, including but not limited to, changes in the component's state(s), value, name, description, or boundary, shall be available to assistive technology. Anything that happens visually on the screen is also available to assistive technology users.

Test Results and Comments: Can be provided in a separate document.

5.2.4 Platform Accessibility Features: Platforms and platform software shall conform to the following requirements in ANSI/HFES 200.2, Human Factors Engineering of Software User Interfaces - Part 2: Accessibility (2008).

Complete or N/A	Conformance	Techniques
	5.2.4. Enable sequential entry of multiple (chorded) keystrokes	Sticky keys, Shift + letter.
	5.2.4.2 Provide adjustment of delay before key acceptance	Bounce keys.
	5.2.4.3 .Provide adjustment of same-key double-strike acceptance	Filter keys, key repeat time.
	5.2.4.4 Allow users to choose visual alternative for audio output	Show sounds.
	5.2.4.5 Synchronize audio equivalents for visual events	Hear things as they are seen on the screen.
	5.2.4.6 Provide speech output services;	
	5.2.4.7 Display any captions provided	

Test Results and Comments: Can be provided in a separate document.

5.3 Applications

Exception: Assistive Technology is exempt.

5.3.1 General

Complete the following sections.

5.3.2 User Preferences: Applications shall permit user preferences from platform settings for color, contrast, font type, font size, and focus cursor.

Exception: Applications that are designed to be isolated from their underlying platform software, including Web applications (sandboxed), shall not be required to conform.

Test Results and Comments: Can be provided in a separate document.

5.3.3 Alternative User Interfaces.: Where an application provides an alternative user interface that functions as assistive technology, the application shall use platform and other industry standard accessibility services.

Test Results and Comments: Can be provided in a separate document.

5.3.4 User Controls for Captions and Audio Description: For software presenting multimedia.

Where ICT displays video with synchronized audio, ICT shall provide user controls for closed captions and audio descriptions conforming to 503.4.

Complete or N/A	Conformance	Techniques
	5.3.4.1 Caption Controls	Where user controls are provided for volume adjustment, ICT shall provide user controls for the selection of captions at the same menu level as the user controls for volume or program selection.
	5.3.4.2 Audio Description Controls	Where user controls are provided for program selection, ICT shall provide user controls for the selection of audio descriptions at the same menu level as the user controls for volume or program selection.

Test Results and Comments: Can be provided in a separate document.

5.4 Authoring Tools An authoring tool is any software, or collection of software components, that can be used by authors, alone or collaboratively, to create or modify content for use by others, including other authors.

5.4.1 General: Where an application is an authoring tool, the application shall conform to this section to the extent that information required for accessibility is supported by the destination format.

Complete the following sections.

5.4.2 Content Creation or Editing: Authoring tools shall provide a mode of operation to create or edit content that conforms to Level A and Level AA Success Criteria and Conformance Requirements in WCAG 2.0 or all supported features and, as applicable, to file formats supported by the authoring tool. Authoring tools shall permit authors the option of overriding information required for accessibility.

Exception: Authoring tools shall not be required to conform to this section when used to directly edit plain text source code.

Complete or N/A	Conformance	Techniques
	5.4.2.1 Preservation of Information Provided for Accessibility in Format Conversion	Authoring tools shall, when converting content from one format to another or saving content in multiple formats, preserve the information required for accessibility to the extent that the information is supported by the destination format.
	5.4.2.2 PDF Export.	Authoring tools capable of exporting PDF files that conform to ISO 32000-1:2008 (PDF 1.7) shall also be capable of exporting PDF files that conform to ANSI/AIIM/ISO 14289-1:2016 (PDF/UA-1).

Test Results and Comments: Can be provided in a separate document.

5.4.3 Prompts: Authoring tools shall provide a mode of operation that prompts authors to create content that conforms to Level A and Level AA Success Criteria and Conformance Requirements in WCAG 2.0 for supported features and, as applicable, to file formats supported by the authoring tool.

Test Results and Comments: Can be provided in a separate document.

5.4.4 Templates: Where templates are provided, templates allowing content creation that conforms to Level A and Level AA Success Criteria and Conformance Requirements in WCAG 2.0 shall be provided for a range of template uses for supported features and, as applicable, to file formats supported by the authoring tool.

Test Results and Comments: Can be provided in a separate document.

Part 6: Support Documentation

36 CFR 1194 Appendix C, Chapter 6

6.1 General: Where an agency provides support documentation or services for ICT, such documentation and services shall conform to the requirements in this section.

Complete the three following sections.

6.2 Support Documentation

Complete or N/A	Conformance	Techniques
	6.2.1 General.	Placeholder.
	6.2.2 Accessibility and Compatibility Features	Documentation shall list and explain how to use the accessibility and compatibility features required by Parts 4 and 5. Documentation shall include accessibility features that are built-in and accessibility features that provide compatibility with assistive technology.
	602.3 Electronic Support Documentation	Documentation in electronic format, including Web-based self-service support, shall conform to Level A and Level AA Success Criteria and Conformance Requirements in WCAG 2.0.
	6.2.4 Alternate Formats for Non-Electronic Support Documentation	Where support documentation is only provided in non-electronic formats, alternate formats usable by individuals with disabilities shall be provided upon request.

Test Results and Comments: Can be provided in a separate document.

6.3 Support Services

Complete or N/A	Conformance	Techniques
	6.3.1 General	ICT support services including, but not limited to, help desks, call centers, training services, and automated self-service technical support, shall conform.
	6.3.2 Information on Accessibility and Compatibility Features	ICT support services shall include information on the accessibility and compatibility features required by Part 6.2.
	6.3.3 Accommodation of Communication Needs	Support services shall be provided directly to the user or through a referral to a point of contact. Such ICT support services shall accommodate the communication needs of individuals with disabilities.

Test Results and Comments: Can be provided in a separate document.