

MARYLAND REGISTER

Proposed Action on Regulations

Comparison to Federal Standards Submission and Response

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In accordance with Executive Order 01.01.1996.03 and memo dated July 26, 1996, the attached document is submitted to the Department of Business and Economic Development for review.

The Proposed Action is not more restrictive or stringent than corresponding federal standards.

COMAR Codification: 14.33.14.02

COMAR Codification: 14.33.14.01

Corresponding Federal Standard:

36 CFR 1194, INFORMATION AND COMMUNICATION TECHNOLOGY STANDARDS AND GUIDELINES

Discussion/Justification:

The current COMAR 14.33.01 and COMAR 14.33.02 are based on an older version of 36 CFR 1194.

36 CFR 1194 was amended in 2018.

TO BE COMPLETED BY DBED

-Agree

-Disagree

Comments:

Name:

Date:

-Submit to Governor's Office

Governor's Office Response

Comments:

Transmittal Sheet PROPOSED OR REPROPOSED Actions on Regulations	Date Filed with AELR Committee	TO BE COMPLETE D BY DSD
	09/17/2021	Date Filed with Division of State Documents
		Document Number
		Date of Publication in MD Register

1. Desired date of publication in Maryland Register: 11/19/2021

2. COMAR Codification

Title Subtitle Chapter Regulation

14 33 14 02

14 33 14 01

3. Name of Promulgating Authority

Department of Disabilities

4. Name of Regulations Coordinator

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**Title 14
INDEPENDENT
AGENCIES**

**Subtitle 33 DEPARTMENT
OF INFORMATION
TECHNOLOGY**

**14.33.14 Chapter 01
Definitions and General
Provisions**

**Subtitle 33 DEPARTMENT
OF INFORMATION
TECHNOLOGY**

**14.33.14 Chapter 02
Information and
Communication Technology
Nonvisual Access Standards**

Authority: Authority: State Finance and Procurement Article, §§ Authority: State Finance and Procurement Article, §§3A-302, 3A-303, 3A-311, and 3A-312, Annotated Code of Maryland

Notice of Proposed Action

□

The Department of Information proposes to amend the Regulation .01 under COMAR 14.33.01 Definitions and General Provisions and the Regulation .02 under COMAR 14.33.02 Information Technology Nonvisual Access Standards.

Statement of Purpose

The purpose of this action is to amend Regulations COMAR 14.33.01 and COMAR

6. Check applicable items:

- New Regulations
- Amendments to Existing Regulations
Date when existing text was downloaded from COMAR online: 7/20/20.
- Repeal of Existing Regulations
- Recodification
- Incorporation by Reference of Documents Requiring DSD Approval
- Reproposal of Substantively Different Text:

: Md.
 R

(vol.) (issue) (page nos) (date)

Under Maryland Register docket no.: --P.

7. Is there emergency text which is identical to this proposal:

- Yes No

8. Incorporation by Reference

Check if applicable: Incorporation by Reference (IBR) approval form(s) attached and 18 copies of documents proposed for incorporation submitted to DSD. (Submit 18 paper copies of IBR document to DSD and one copy to AELR.)

9. Public Body - Open Meeting

OPTIONAL - If promulgating authority is a public body, check to include a sentence in the Notice of Proposed Action that proposed action was considered at an open meeting held pursuant to General Provisions Article, §3-302(c), Annotated Code of Maryland.

OPTIONAL - If promulgating authority is a public body, check to include a paragraph that final action will be considered at an open meeting.

10. Children's Environmental Health and Protection

Check if the system should send a copy of the proposal to the Children's Environmental Health and Protection Advisory Council.

11. Certificate of Authorized Officer

I certify that the attached document is in compliance with the Administrative Procedure

14.33.02 to update regulations to be in accordance with Ch. 632 (S.B. 286) Acts of 2018, which states, the Secretary, or the Secretary's designee, shall adopt new nonvisual access procurement standards that: (i) provide an individual with disabilities with nonvisual access in a way that is fully and equally accessible to and independently usable by the individual with disabilities so that the individual is able to acquire the same information, engage in the same interactions, and enjoy the same services as users without disabilities, with substantially equivalent ease of use; and (ii) are consistent with the standards of § 508 of the Federal Rehabilitation Act of 1973.

Comparison to Federal Standards

There is a corresponding federal standard to this proposed action, but the proposed action is not more restrictive or stringent.

Estimate of Economic Impact

The proposed action has no economic impact.

Economic Impact on Small Businesses

The proposed action has minimal or no economic impact on small businesses.

Act. I also certify that the attached text has been approved for legality by Howard J. Barr, Assistant Attorney General, (telephone #410 767-4724) on 8/27/21. A written copy of the approval is on file at this agency.

Name of Authorized Officer

Howard J. Barr

Title

Assistant Attorney General

Telephone No.

410 767-4724

Date

8/27/21

Impact on Individuals with Disabilities

The proposed action has no impact on individuals with disabilities.

Opportunity for Public Comment

Comments may be sent to Elizabeth Hall, Director of Interagency Affairs, Maryland Department of Disabilities, 217 Redwood Street Suite 1300, or call (767) 410-3652, or email to elizabeth.hall2@maryland.gov, or fax to . Comments will be accepted through 12/1/21. A public hearing has not been scheduled.

Economic Impact Statement Part C

A. Fiscal Year in which regulations will become effective: FY 21

B. Does the budget for the fiscal year in which regulations become effective contain funds to implement the regulations?

Yes

C. If 'yes', state whether general, special (exact name), or federal funds will be used:

general funds

D. If 'no', identify the source(s) of funds necessary for implementation of these regulations:

E. If these regulations have no economic impact under Part A, indicate reason briefly:

The updates to existing regulations do not significantly increase burdens on compliance

F. If these regulations have minimal or no economic impact on small businesses under Part B, indicate the reason and attach small business worksheet.

The updates to existing regulations do not significantly increase burdens on compliance

G. Small Business Worksheet:

Small Business Analysis Worksheet

This worksheet is designed to assist the agency in determining if and how the proposal impacts small businesses. Quantify the number of affected small businesses and estimates of costs and benefits to small businesses if possible. State Government Article, §2-1505.2, includes the following definitions which are relevant to the analysis:

“Economic impact analysis” means an estimate of the cost or the economic benefit to small businesses that may be affected by a regulation proposed by an agency pursuant to Title 10, Subtitle 1 of this article.

“Small business” means a corporation, partnership, sole

proprietorship, or other business entity, including its affiliates, that: (i) is independently owned and operated;
(ii) is not dominant in its field; and (iii) employs 50 or fewer full-time employees.

1a. Intended Beneficiaries.
Who are the intended beneficiaries of the proposed regulation? Are these intended beneficiaries primarily households or businesses?

The Board and any entity associated with the regulatory promulgation process are the intended beneficiaries.

1b. Intended Beneficiaries: Households. If households are the primary intended beneficiaries, will the proposal affect their income or purchasing power such that the volume or patterns of their consumer spending will change? If so, what directions of change would you anticipate? Will these expected spending changes have a disproportionate impact on small businesses? Can you descriptively identify the industries or types of business activities that are impacted? Households will not be affected by the proposed action.

1c. Intended Beneficiaries: Businesses. If businesses are the intended beneficiaries, identify the businesses by industry or by types of business activities. How will

businesses be impacted? Are these Maryland establishments disproportionately small businesses? If so, how will these Maryland small businesses be affected? Can you identify or estimate the present number of small businesses affected? Can you estimate the present total payroll or total employment of small businesses affected? Businesses will not be affected by the proposed action.

2a. Other Direct or Indirect Impacts: Adverse. Businesses may not be the intended beneficiaries of the proposal. Instead, the proposal may direct or otherwise cause businesses to incur additional expenses of doing business in Maryland. Does this proposal require Maryland businesses to respond in such a fashion that they will incur additional work-time costs or monetary costs in order to comply? Describe how Maryland establishments may be adversely affected. Will Maryland small businesses bear a disproportionate financial burden or suffer consequences that affect their ability to compete? Can you estimate the possible number of Maryland small businesses adversely affected? (Note that small business compliance costs in the area of regulation are the sum of out-of-pocket (cash) costs plus time costs — usually expressed as payroll, akin to calculations for legislative fiscal notes. Precise

compliance costs may be difficult to estimate, but the general nature of procedures that businesses must accomplish to comply can be described.)

None.

2b. Other Direct or Indirect Impacts: Positive. Maryland businesses may positively benefit by means other than or in addition to changed consumer spending patterns. How may Maryland businesses be positively impacted by this initiative? Will Maryland small businesses share proportionately or disproportionately in these gains? Can you estimate the possible number of Maryland small businesses positively affected?

None.

3. Long-Term Impacts. There are instances where the longer run economic impact effect from regulations differ significantly from immediate impact. For example, regulations may impose immediate burdens on Maryland small businesses to comply, but the overall restructuring of the industry as a consequence of monitoring and compliance may provide offsetting benefits to the affected small businesses in subsequent years. Can you identify any long run economic impact effects on Maryland small businesses that over time (a) may compound or further aggravate the initial economic impact described above, or (b)

may mitigate or offset the initial economic impact described above?

There is no long-term economic impact.

4. Estimates of Economic Impact. State Government Article, §2-1505.2 requires that an agency include estimates, as appropriate, directly relating to: (1) cost of providing goods and services; (2) effect on the work force; (3) effect on the cost of housing; (4) efficiency in production and marketing; (5) capital investment, taxation, competition, and economic development; and (6) consumer choice.

(1) There is no anticipated effect on the cost of providing goods and services; (2) There is no anticipated effect on the work force; (3) There is no anticipated effect on the cost of housing; (4) There is no anticipated effect on efficiency in production and marketing; (5) There is no anticipated capital investment, taxation, competition, and economic development; and (6) There is no anticipated effect on consumer choice.

Attached Document:

Title 14 INDEPENDENT AGENCIES

Subtitle 33 DEPARTMENT OF INFORMATION TECHNOLOGY

Chapter 01 Information and *Communication* Technology Nonvisual Access Standards

Authority: State Finance and Procurement Article, §§3A-303, 3A-311, and 3A-312, Annotated Code of Maryland

.01 Scope. (text unchanged)

.02 Definitions.

A. (text unchanged)

B. Terms Defined

(1) "Accessible" means:

(a) Easy to get to;

(b) Approachable; or

(c) Available.

(2) "Agency" means each unit of State government to which this subtitle is applicable in accordance with State Finance and Procurement Article, §3A-302, Annotated Code of Maryland, and Regulation .01 of this chapter.

[(3) "Applet" means a program or subprogram that interprets content on web pages.]

(3) *Application. Software designed to perform, or to help the user to perform, a specific task or tasks*

(4) *Assistive Technology (AT). Any item, piece of equipment, or product system, whether acquired commercially, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities*

[(a) "Assistive technology" means any item, piece of equipment, or system, whether acquired commercially, modified, or customized, that is commonly used to increase, maintain, or improve functional facilities of individuals with disabilities.

(b) "Assistive technology" does not include personal headsets for private listening.]

(5) *Audio Description. Narration added to the soundtrack to describe important visual details that cannot be understood from the main soundtrack alone. Audio description is a means to inform individuals who are blind or who have low vision about visual content essential for comprehension. Audio description of video provides information about actions, characters, scene changes, on-screen text, and other visual content. Audio description supplements the regular audio track of a program. Audio description is usually added during existing pauses in dialogue. Audio description is also called "video description" and "descriptive narration".*

(6) *Authoring Tool. 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.*

(7) *Closed Functionality. 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.*

(8) *Content. Electronic information and data, as well as the encoding that defines its structure, presentation, and interactions.*

[(5)] (9) "Department" means the Department of Information Technology.

(10) *Document. Logically distinct assembly of content (such as a file, set of files, or streamed media) that: Functions as a single entity rather than a collection; is not part of software; and does not include its own software to retrieve and present content for users. Examples of documents include, but are not limited to, letters, email messages, spreadsheets, presentations, podcasts, images, and movies.*

[(6)] (11) Equivalent.

(a) "Equivalent" means fulfilling essentially the same function or purpose upon presentation to a user.

(b) "Equivalent" fulfills essentially the same function for a person with a disability utilizing reasonable accommodations to the extent possible, given the nature of the disability and the state of technology, as the primary content does for the person without a disability.

[(7) "Image map" means an image that has been divided into regions with associated actions which by clicking on an active region causes an action to occur.

(8) "Information technology" means all electronic information processing hardware and software, including:

- (a) Maintenance;
- (b) Telecommunications; and
- (c) Associated consulting services.

(9) "Information technology services" means information provided by electronic means by or on behalf of a unit of State of government.

(10) Intranet.

(a) "Intranet" means an organization's internal Internet.

(b) "Intranet" is a privately maintained network based on the transmission control protocol/Internet protocol (TCP/IP), offering the same kind of facilities, news, file transfer protocol (FTP), and World Wide Web (WWW) as can be found on the Internet.

(c) "Intranet" may only be accessed by users authorized by the owning organization.]

(12) *Existing ICT. ICT that has been procured, maintained or used on or before January 18, 2018.*

(13) *Hardware. A tangible device, equipment, or physical component of nonvisual ICT, such as telephones, computers, multifunction copy machines, and keyboards.*

(14) *Information Technology. Shall have the same meaning as the term "information technology" set forth in 40 U.S.C. 11101(6).*

(15) *Information and Communication Technology (ICT). 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. Examples of ICT include, but are not limited to: Computers and peripheral equipment; information kiosks and transaction machines; telecommunications equipment; customer premises equipment; multifunction office machines; software; applications; Web sites; videos; and, electronic documents.*

(16) *Keyboard. A set of systematically arranged alphanumeric keys or a control that generates alphanumeric input by which a machine or device is operated. A keyboard includes tactilely discernible keys used in conjunction with the alphanumeric keys if their function maps to keys on the keyboard interfaces.*

(17) *Label. Text, or a component with a text alternative, that is presented to a user to identify content. A label is presented to all users, whereas a name may be hidden and only exposed by assistive technology. In many cases, the name and the label are the same.*

(18) *Name. Text by which software can identify a component to the user. A name may be hidden and only exposed by assistive technology, whereas a label is presented to all users. In many cases, the label and the name are the same. Name is unrelated to the name attribute in HTML.*

(19) *Non-Web Software. Software that is not: A Web page, not embedded in a Web page, and not used in the rendering or functioning of Web pages.*

[(11)] (20) "Nonvisual access" means the ability, through keyboard control, synthesized speech, braille, or other methods not requiring sight, to receive, use, and manipulate information, and operate controls necessary to access information technology.

[(12) "Personal digital assistant (PDA)" means a hand-held computer used in:

- (a) Entering, storing, and displaying schedules, appointments, addresses, phone numbers, and other personal data; and
- (b) Sending and receiving messages and faxes.

(13) "Screen reader" means a software program that reads the contents of the screen aloud to a user, which:

- (a) Is used primarily by individuals who are blind;
- (b) Usually reads only text that is printed to the screen; and
- (c) Does not generally read graphic images.

(14) Self-Contained, Closed Products.

(a) "Self-contained, closed products" means products that generally have embedded software and are commonly designed so that a user cannot easily attach or install assistive technology.

(b) "Self-contained, closed products" include, but are not limited to, information kiosks and information transaction machines, copiers, printers, calculators, fax machines, and other similar types of products.

(15) "Script" means a programmatic set of instructions that when downloaded with a web page will permit the user's computer to share the processing of information with the web server.

(16) Style Sheet.

(a) "Style sheet" means a set of statements, generally termed templates, that specify presentation of a document.

(b) "Style sheet" may be written by content providers, created by users, or built into user agents.

(17) "Telecommunications" means the transmission of information, images, pictures, voice, or data by radio, video, or other electronic or impulse means.

(18) "Text equivalents" means alternative presentations of graphic or audio information or functionality in words readable electronically as data.]

(21) *Operable Part. Hardware-based user controls for activating, deactivating, or adjusting ICT.*

(22) *Platform Accessibility Services. Services provided by a platform enabling interoperability with assistive technology. Examples are Application Programming Interfaces (API) and the Document Object Model (DOM).*

(23) *Platform Software. Software that interacts with hardware or provides services for other software. Platform software may run or host other software, and may isolate them from underlying software or hardware layers. A single software component may have both platform and non-platform aspects. Examples of platforms are: Desktop operating systems; embedded operating systems, including mobile systems; Web browsers; plug ins to Web browsers that render a particular media or format; and sets of components that allow other applications to execute, such as applications which support macros or scripting.*

(24) *Programmatically Determinable. Ability to be determined by software from author-supplied data that is provided in a way that different user agents, including assistive technologies, can extract and present the information to users in different modalities.*

(25) *Public Facing. Content made available by an agency to members of the general public. Examples include, but are not limited to, an agency Web site, blog post, or social media pages.*

(26) *Software. 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.*

(27) *Software Tools.* Software for which the primary function is the development of other software. Software tools usually come in the form of an *Integrated Development Environment (IDE)* and are a suite of related products and utilities. Examples of IDEs include *Microsoft® Visual Studio®, Apple® Xcode®, and Eclipse Foundation Eclipse®.*

(28) *Telecommunications.* The signal transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received.

(29) *Terminal.* Device or software with which the end user directly interacts and that provides the user interface. For some systems, the software that provides the user interface may reside on more than one device such as a telephone and a server.

(30) *Text.* A sequence of characters that can be programmatically determined and that expresses something in human language.

(31) *Voice over Internet Protocol (VoIP).* A technology that provides real-time voice communications. VoIP requires a broadband connection from the user's location and customer premises equipment compatible with Internet protocol.

(32) *Web page.* A non-embedded resource obtained from a single *Universal Resource Identifier (URI)* using *HyperText Transfer Protocol (HTTP)* plus any other resources that are provided for the rendering, retrieval, and presentation of content.

Title 14 INDEPENDENT AGENCIES

Subtitle 33 DEPARTMENT OF INFORMATION TECHNOLOGY

Chapter 02 Information and *Communication* Technology Nonvisual Access Standards

Authority: State Finance and Procurement Article, §3A-303(a)(5), 3A-311, and 3A-312, Annotated Code of Maryland

.01 Purpose.

A. The purpose of this chapter is to implement State Finance and Procurement Article, §3A-303(a)(5), 3A-311, and 3A-312, Annotated Code of Maryland.

B. This chapter sets forth uniform nonvisual access standards to be used in the procurement of information and *communication* technology (*ICT*) and the provision of *ICT* services by or on behalf of agencies.

.02 Scope.

A. This chapter applies to the procurement of [information technology] *ICT* and the provision of [information technology] *ICT* services by or on behalf of agencies, except if:

(1) The [information technology] *ICT* is not available with nonvisual access because the essential elements of the information technology are visual and a nonvisual equivalent cannot be developed; or

(2) The cost of modifying the [information technology] *ICT* for compatibility with software and hardware for nonvisual access would increase the price of the procurement by more than [5] 15 percent.

B. This chapter does not apply to [information technology] *ICT* that is acquired and used by a contractor:

(1) Incidental to performing under a contract with the State or any agency; and

(2) To the extent that the [information technology] *ICT* is not transferred to the State or any agency as part of the contractor's obligations to perform or incorporated into the deliverables provided to the State or any agency under the contract.

C. The [information technology] *ICT* products or [information technology] *ICT* services a contractor develops, procures, maintains, or uses that are not specified as part of a contract with the State or any agency are not required to comply with this chapter.

D. (text unchanged)

E. (text unchanged)

(1) To provide access to the public to information at a location other than where the [electronic and information technology] *ICT* is ordinarily provided to the public; or

(2) To purchase products for access and use by individuals with disabilities at a location other than where the [information technology] *ICT* is ordinarily provided to the public.

F. (text unchanged)

[03. Application.]

[A.] G. Except as provided by [Regulation .02B of this chapter] §A-F of this regulation, [information technology] *ICT* and [information technology] *ICT* services procured, used, maintained, developed, and provided by or on behalf of agencies shall be nonvisually accessible in accordance with the standards promulgated in this chapter.

[B.] H. Agencies shall procure [information technology] *ICT* and services that comply with the provisions in this chapter when such [information technology] *ICT* and [information technology] *ICT* services are available in the commercial marketplace or developed in response to a State government solicitation.

[C.] I. [When procuring or using commercially available information technology, an agency may not claim that an information technology product as a whole is not commercially available because no product in the marketplace meets all the standards. If products are commercially available that meet some but not all of the standards, the agency shall procure the product that best meets the standards.] *Best Meets. Where ICT conforming to one or more provisions in this chapter is not commercially available, the agency shall procure the ICT that best meets the agency's business needs. consistent with this chapter's provisions*

J. *Best Meets Required Documentation. The responsible agency official shall document in writing: (a) The non-availability of conforming ICT, including a description of market research performed and which provisions cannot be met, and (b) the basis for determining that the ICT to be procured that best meets the agency's business needs. consistent with this chapter's provisions*

K. *Best Meets Alternative Means. Where ICT that fully conforms to the provisions of this chapter is not commercially available, the agency shall provide individuals with visual disabilities access to and use of information and data by an alternative means that meets identified needs.*

[D.] P (text unchanged)

.03. [Application.] Functional Performance Criteria.

A. *Functional Performance Criteria shall apply to §04 Hardware, §05 Software, and §06 Support Documentation and Services of this chapter.*

B. *ICT shall be considered nonvisually accessible if the ICT meets the following requirements:*

(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.*

(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.*

(3) *Without Perception of Color. Where a visual mode of operation is provided, ICT shall provide at least one nonvisual mode of operation that does not require user perception of color.*

.04 [Software Applications and Operating Systems.] Hardware.

[Software applications and operating systems shall be considered nonvisually accessible if the products meet the requirements of 36 CFR §1194.21, which is incorporated by reference herein.]

A. *Scope. The requirements of Regulation .04 Hardware shall apply to ICT that is hardware where required by Regulation .02 of this chapter, and where otherwise referenced in this chapter.*

B. *Closed Functionality. 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.*

(1) *Speech-Output Enabled Exceptions. § B of this regulation does not apply to the following:*

(a) *Speech output shall not be required where ICT display screens only provide status indicators and those indicators conform to § H of this regulation in lieu of subsection (1)b of this regulation*

(b) *Where speech cannot be supported due to constraints in available memory or processor capability, ICT shall be permitted to conform to § H of this regulation*

(c) *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.*

(d) *Speech output shall not be required for: The machine location; date and time of transaction; customer account number; and the machine identifier or label*

(e) *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.*

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

(a) *Information Displayed On-Screen. Speech output shall be provided for all information displayed on-screen.*

(b) *Transactional Outputs. Where transactional outputs are provided, the speech output shall audibly provide all information necessary to verify a transaction.*

(c) *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.*

(i) *Speech shall be recorded or digitized human or synthesized.*

(ii) *Speech output shall be coordinated with information displayed on the screen.*

(d) *User Control. The requirements for user control are as follows:*

(i) *Speech output for any single function shall be automatically interrupted when a transaction is selected.*

(ii) *Speech output shall be capable of being repeated and paused.*

(3) *Braille Instructions Exception. §B(3) of this regulation does not apply to devices for personal use.*

(4) *Braille Instructions. The Braille Instructions are as follows:*

(a) *Where speech output is required by §B (2) of this Regulation, braille instructions for initiating the speech mode of operation shall be provided.*

(b) *Braille shall be contracted and shall conform to 36 CFR § 1191.D.703.3.1. which is incorporated by reference herein.*

C. *Volume. ICT that delivers sound, including speech output required by §B(2) of this Regulation shall provide volume control and output amplification conforming to this section of this Regulation.*

(1) *Exception. ICT conforming to §B(4) of this Regulation shall not be required to conform to this section of this Regulation*

(2) *Private Listening. The volume requirements for private listening are as follows:*

(a) *Where ICT provides private listening, it shall provide a mode of operation for controlling the volume.*

(b) *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.*

(3) *Non-private Listening. The volume requirements for non-private listening are as follows:*

(a) *Where ICT provides non-private listening, incremental volume control shall be provided with output amplification up to a level of at least 65 dB.*

(b) *A function shall be provided to automatically reset the volume to the default level after every use.*

(4) *Characters on Display Screens.*

(a) At least one mode of characters displayed on the screen shall be in a sans serif font.

(b) 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".

(c) Characters shall contrast with their background with either light characters on a dark background or dark characters on a light background.

C. Biometrics.

(a) 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.

(b) Where provided, biometrics shall not be the only means for user identification or control.

D. Preservation of Information Provided for Accessibility. ICT that transmits or converts information or communication shall not remove nonproprietary information provided for accessibility or shall restore it upon delivery.

E. Privacy. The privacy requirements are as follows:

(1) The same degree of privacy of input and output shall be provided to all individuals.

(2) When speech output required by Regulation § B(2) of this chapter is enabled, the screen shall not blank automatically.

F. Standard Connections. 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.

G. Operable Parts. The operable parts requirements are as follows:

(1) Where provided, operable parts used in the normal operation of ICT shall conform to this section of this Regulation.

(2) Contrast. Where provided, keys and controls shall contrast visually from background surfaces. 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.

(3) Input Controls. The requirements for inputs controls. At least one input control conforming to this section of this Regulation shall be provided for each function.

(4) Input Controls Exceptions. 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

(4) Tactilely Discernible. Input controls shall be operable by touch and tactilely discernible without activation.

(5) Alphabetic Keys. Where provided, individual alphabetic keys shall be arranged in a QWERTY 15)based keyboard layout and the "F" and "J" keys shall be tactilely distinct from the other keys.

(6) Numeric Keys. Where provided, numeric keys shall be arranged in a 12-key ascending or descending keypad layout.

(a)The number five key shall be tactilely distinct from the other keys.

(b)Where the ICT provides an alphabetic overlay on numeric keys, the relationships between letters and digits shall conform to 36 CFR 1194 Appendix C. 407.3.3 which is incorporated by reference herein.

(7) 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.

(8) 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.

(9) 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.

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

I. 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.

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

K. Closed Caption Processing Technologies.

(1) Where ICT displays or processes video with synchronized audio, ICT shall provide closed caption processing technology that conforms to this section of this regulation

(2) Decoding and Display of Closed Captions. Players and displays shall decode closed caption data and support display of captions.

(3) Pass-Through of Closed Caption Data. Cabling and ancillary equipment shall pass through caption data.

L. Audio Description Processing Technologies. Where ICT displays or processes video with synchronized audio, ICT shall provide audio description processing technology conforming to this section of this regulation

(2) Digital Television Tuners. Digital television tuners shall be considered non visually accessible if the ICT provides audio description processing that conforms to the requirements of 36 CFR §1194.C.414.1.1, which is incorporated by reference herein.

(3) Other ICT. ICT other than digital television tuners shall provide audio description processing.

(4) User Controls for Captions and Audio Descriptions. Where ICT displays video with synchronized audio, ICT shall provide user controls for closed captions and audio descriptions conforming to this section of this Regulation

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.

(b) Caption Controls. Where ICT provides operable parts for volume control, ICT shall also provide operable parts for caption selection.

(c) Audio Description Controls. Where ICT provides operable parts for program selection, ICT shall also provide operable parts for the selection of audio description.

.05 [Web-based Intranet and Internet Information and Applications.] Software.

[Web-based intranet and internet information and applications shall be considered nonvisually accessible if the products meet the requirements of 36 CFR §1194.22, which is incorporated by reference herein.]

. Software ICT shall be considered nonvisually accessible if the software ICT meets the requirements of 36 CFR §1194. Appendix C. 5 which is incorporated by reference herein

.06 [Telecommunications and Interconnected Network Equipment and Services.] Support Documentation and Services

A. Scope. The technical requirements in .06 Support Documentation and Services shall apply to ICT support documentation and services where required by this chapter.

B. Support Documentation. General Documentation that supports the use of ICT shall conform to this section

(a) Accessibility and Compatibility Features. Documentation shall list and explain how to use the nonvisual accessibility and compatibility features required by Regulation .04 and Regulation .05 of this chapter .Documentation shall include accessibility features that are built-in and accessibility features that provide compatibility with assistive technology.

(b) Electronic Support Documentation. Documentation in electronic format, including Web-based self-service support shall be considered nonvisually accessible if the ICT meets the requirements of 36 CFR §1194. Appendix C.602.3, which is incorporated by reference herein.

(c) Alternate Formats for Non-Electronic Support Documentation. Where support documentation is only provided in non-electronic formats, alternate formats usable by individuals with visual disabilities shall be provided upon request.

C. Services

1. Nonvisual ICT support services including, but not limited to, help desks, call centers, training services, and automated self-service technical support, shall conform to this section.

(a) Information on Accessibility and Compatibility Features. Nonvisual ICT support services shall include information on the accessibility and compatibility features required by this chapter

(b) 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 visual disabilities

[.12] .07 Compliance Certification.

Each agency shall certify in the Agency Information Technology Master Plan submission to the Department of Information Technology that [information technologies] *the ICT* procured and services provided by or on behalf of the unit comply with the requirements in this chapter

