



Electronic and Information Resources Accessibility Policy and Procedures Manual

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Chapter 1: Overview

1.1 Purpose and Scope

- 1.1.1 State Employees
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- 1.1.3 Individuals with Limited English Proficiency
- 1.1.4 Electronic and Information Resources
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1.2 Application

1.3 Compliance Plan

- 1.3.1 Exception for Significant Difficulty or Expense
- 1.3.2 Alternative Methods of Compliance
- 1.3.3 General Exceptions

1.4 Lack of Commercial Availability

It is the policy of the Office of the Attorney General (OAG) that agency electronic and information resources, including OAG websites that are developed, procured, maintained, or used by the OAG directly and/or products provided by OAG vendors and/or service providers whose contract terms require the use of electronic and information resources, shall be accessible to individuals with disabilities and individuals with limited English proficiency.

1.1 Purpose and Scope

The purpose of this policy and procedures manual is to ensure accessibility by aligning the policies and practices of the OAG with Chapter 2054 of the Texas Government Code and the accessibility rules found in Title 1, Chapter 206, Subchapter B, and Chapter 213, Subchapter B of the Texas Administrative Code. The standards set forth in the accessibility rules and this procedures manual are based on the standards set in Section 508 of the Federal Rehabilitation Act of 1973, as amended (29 U.S.C. § 794d) (hereafter, Section 508). Requirements in this procedures manual are intended to ensure accessibility for both state employees and members of the public.

1.1.1 State Employees

In the development, procurement, maintenance, and use of electronic and information resources, the OAG, pursuant to section 2054.456 of the Texas Government Code, will provide employees with disabilities comparable access to and use of information as employees without disabilities, unless such requirement imposes a significant difficulty or expense on the agency. The OAG will take reasonable steps to ensure that employees with disabilities have reasonable access to perform their job duties.

1.1.2 Members of the Public

Pursuant to section 2054.457 of the Texas Government Code, the OAG will provide members of the public with disabilities, who are seeking information or other services from the agency, with access to and use of electronic and information resources that are comparable to that provided to members of the public without disabilities, unless such requirement imposes a significant difficulty or expense to the agency.

1.1.3 Individuals with Limited English Proficiency

Pursuant to section 2054.116 of the Texas Government Code, the OAG shall make a reasonable effort to ensure that Spanish-speaking persons of limited English proficiency can meaningfully access agency information online. A “person of limited English proficiency” means a person whose primary language is other than English and whose English language skills are such that the person has difficulty interacting effectively with a state agency.

1.1.4 Electronic and Information Resources

“Electronic and information resources” includes information technology and any equipment or interconnected system or subsystem of equipment that is used in the creation, conversion, duplication, or delivery of data or information. The term also includes, but is not limited to, telecommunications products (such as telephones), information kiosks and transaction machines, World Wide Website, multimedia, and office equipment such as copiers and fax machines. The term does not include any equipment that contains embedded information technology that is used as an integral part of the product, but the principal function of which is not the acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information. 1 TAC §§ 206.1(10), 213.1(6).

1.1.5 Accessibility Coordinator

The Public Information & Assistance Division Chief shall serve as the OAG’s Accessibility Coordinator. The Accessibility Coordinator shall:

- 1) support, implement, and maintain this policy and procedures manual;
- 2) ensure that OAG policies and business practices are consistent with this policy and procedures manual;
- 3) implement and maintain the plan(s) to correct electronic and information resources that are not in compliance with this policy and procedures manual;
- 4) coordinate the timely completion of the Department of Information Resources Accessibility Survey as required by Title 1, Section 213.20 of the Texas Administrative Code;
- 5) serve as the liaison to the First Assistant Attorney General for reviewing requests for exceptions as stipulated in Chapter 1.3.1 of this procedures manual;
- 6) consult with OAG staff on accessibility issues as needed; and
- 7) serve as the OAG’s central point of contact for information concerning accessibility issues and solutions for electronic and information resources.

1.2 Application

This procedures manual applies to electronic and information resources developed, procured, maintained, or used by

- the OAG directly, and
- OAG vendors and/or service providers whose contract terms require the use of electronic and information resources.

1.3 Compliance

The OAG shall ensure that electronic and information resources comply with applicable provisions described in this procedures manual, unless an exception is granted pursuant to Chapter 1.3.1 of this procedures manual.

Pursuant to Title 1, Section 206.50(b) of the Texas Administrative Code, the OAG shall have its electronic and information resources, including web pages and web applications, monitored to ensure they are in compliance with all applicable accessibility requirements. The Accessibility Coordinator will coordinate with personnel he/she determines appropriate to conduct such monitoring.

Pursuant to Title 1, Sections 206.51(b) and 213.21(b) of the Texas Administrative Code, any electronic and information resources not in compliance with applicable accessibility requirements will be brought into compliance unless an exception is warranted under section 1.3.1. On a case by case basis, the Accessibility Coordinator will coordinate with personnel he/she determines appropriate to bring non-compliant resources into compliance. It is this agency's intention to work with any person with a disability that prevents them from using an OAG electronic and information resource in order to provide them an acceptable alternate form if necessary.

1.3.1 Exception for Significant Difficulty or Expense

The Attorney General or the First Assistant Attorney General is authorized to exempt the OAG from compliance with the applicable standards and specifications found in Title 1, Chapters 206 and 213 of the Texas Administrative Code and any provision described in this procedures manual if compliance imposes a significant difficulty or expense on the OAG. In determining whether compliance imposes a significant difficulty or expense to the OAG, the Attorney General or the First Assistant Attorney General shall consider all agency resources available to the program or program component for which the product is being developed, procured, maintained, or used. The Attorney General's or the First Assistant Attorney General's decision to grant an exemption is final and may not be appealed.

If a division chief or member of Executive Management in the OAG determines that an exception to compliance is warranted, the division chief will submit the [Accessibility Exception Request Form](#) to the OAG Accessibility Coordinator explaining why, and to what extent, compliance will create a significant difficulty or expense. The OAG Accessibility Coordinator shall evaluate exception requests and make recommendations to the First Assistant Attorney General on whether to grant the exception.

An exception request must be submitted for each development or procurement, including outsourced development, which does not comply with the applicable standards and specifications found in Title 1, Chapters 206 and 213 of the Texas Administrative Code and the provisions described in this procedures manual.

An approved exception must include a date of expiration, a plan for alternate means of access for persons with disabilities, relevant cost avoidance estimates, and the Attorney General's or First Assistant Attorney General's signature. 1 TAC § 213.17(3).

Records of exception requests will be maintained by the Accessibility Coordinator according to the OAG's records retention schedule.

1.3.2 Alternative Methods of Access

When an exception to compliance is granted pursuant to Chapter 1.3.1 of this procedures manual, the

OAG will make a reasonable effort to provide the information and/or data through a different means of access.

1.3.3 General Exceptions:

Employee Workstations

The OAG is not required to install specific accessibility-related software or attach an assistive technology device at a workstation of a state employee.

Agency-Owned Products

The OAG is not required to:

- make OAG-owned products available for access and use by individuals with disabilities at a location other than the location where the electronic and information technology is provided to the public; or
- purchase products for access and use by individuals with disabilities at a location other than the location where the electronic and information technology is provided to the public.

Fundamental Alterations

The provisions of this procedures manual shall not be construed to require a fundamental alteration in the nature of a product or its components.

Building Maintenance and Monitoring Equipment

Equipment located in spaces frequented only by service personnel for maintenance, repair, or occasional monitoring are exempt from the requirements described in this procedures manual. Examples include environmental controls or utility metering equipment.

Note: The provisions of this procedures manual do not apply to products acquired by a contractor incidental to a contract, such as the contractor's computer, telephone, fax machine, and other equipment not part of the deliverables required under the contract.

1.4 Lack of Commercial Availability

The lack of commercial availability of products, including computer software, and specific technologies that would impose a significant difficulty or expense to the OAG are identified under "Exceptions and Emerging Technologies" in the Accessibility Section of the State website Guidelines available from DIR.

Chapter 2: Website Accessibility and Usability

2.1 Texas Web Accessibility Standards

- 2.1.1 Text Equivalents
- 2.1.2 Color
- 2.1.3 Style Sheets
- 2.1.4 Image Maps
- 2.1.5 Tables

- 2.1.6 Frames
- 2.1.7 Screen Frequency
- 2.1.8 Text-Only Alternative
- 2.1.9 Scripting Languages
- 2.1.10 Applet, Plug-in, Other
- 2.1.11 Web-Based Forms
- 2.1.12 Skip Navigation
- 2.1.13 Timed Response

2.2 Linking and Indexing State Websites

2.1 Texas Web Accessibility Standards

All new and/or changed web pages and web content shall comply with the following standards, which are based on Section 508 accessibility standards.

2.1.1 Text Equivalentents

1 TAC § 206.50(a)(1)–A text equivalent for every non-text element shall be provided (e.g., via "alt", "longdesc," or in element content).

2.1.2 Color

1 TAC § 206.50(a)(3)-Web pages shall be designed so that all information conveyed with color is also available without color.

2.1.3 Style Sheets

1 TAC § 206.50(a)(4)-Documents shall be organized so they are readable without requiring an associated style sheet.

2.1.4 Image Maps

1 TAC § 206.50(a)(5)-Redundant text links shall be provided for each active region of a server-side image map.

1 TAC § 206.50(a)(6)-Client-side image maps shall be provided instead of server-side image maps except where the regions cannot be defined with an available geometric shape.

2.1.5 Tables

1 TAC § 206.50(a)(7)-Row and column headers shall be identified for data tables.

1 TAC § 206.50(a)(8)-Markup shall be used to associate data cells and header cells for data tables that have two or more logical levels of row or column headers.

2.1.6 Frames

1 TAC § 206.50(a)(9)-Frames shall be titled with text that facilitates frame identification and navigation.

2.1.7 Screen Frequency

1 TAC § 206.50(a)(10)-Pages shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.

2.1.8 Text-only Alternative

1 TAC § 206.50(a)(11)-An alternative version page, with equivalent information or functionality, shall be provided to make a website comply with the provisions of this section, when compliance cannot be accomplished in any other way. The content of the alternative page shall be updated whenever the primary page changes.

2.1.9 Scripting Languages

1 TAC § 206.50(a)(12)-When pages utilize scripting languages to display content, or to create interface elements, the information provided by the script shall be identified with functional text that can be read by assistive technology

2.1.10 Applets, Plug-ins, Other Applications

1 TAC § 206.50(a)(13)-When a Web page requires that an applet, plug-in or other application be present on the client system to interpret page content, the page must provide a link to a plug-in or applet that complies with the following:

- (A) When software is designed to run on a system that has a keyboard, product functions shall be executable from a keyboard where the function itself or the result of performing a function can be discerned textually.*
- (B) Applications shall not disrupt or disable activated features of other products that are identified as accessibility features, where those features are developed and documented according to industry standards. Applications also shall not disrupt or disable activated features of any operating system that are identified as accessibility features where the application programming interface for those accessibility features has been documented by the manufacturer of the operating system and is available to the product developer.*
- (C) A well-defined on-screen indication of the current focus shall be provided that moves among interactive interface elements as the input focus changes. The focus shall be programmatically exposed so that assistive technology can track focus and focus changes.*
- (D) Sufficient information about a user interface element including the identity, operation and state of the element shall be available to assistive technology. When an image represents a program element, the information conveyed by the image must also be available in text.*
- (E) When bitmap images are used to identify controls, status indicators, or other programmatic elements, the meaning assigned to those images shall be consistent throughout an application's performance.*
- (F) Textual information shall be provided through operating system functions for displaying text. The minimum information that shall be made available is text content, text input caret location,*

and text attributes.

- (G) Applications shall not override user selected contrast and color selections and other individual display attributes.*
- (H) When animation is displayed, the information shall be displayable in at least one non-animated presentation mode at the option of the user.*
- (I) 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) When a product permits a user to adjust color and contrast settings, a variety of color selections capable of producing a range of contrast levels shall be provided.*
- (K) Software shall not use flashing or blinking text, objects, or other elements having a flash or blink frequency greater than 2Hz and lower than 55Hz.*
- (L) When electronic forms are used, the form shall allow people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.*

See also 1 TAC § 213.10(1)-(12) (“Software Applications and Operating Systems”).

2.1.11 Web-Based Forms

1 TAC § 206.50(a)(14) — When electronic forms are designed to be completed on-line, the form shall allow people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.

2.1.12 Skip Navigation

1 TAC § 206.50(a) (15)-A method shall be provided that permits users to skip repetitive navigation links.

2.1.13 Timed Response

1 TAC § 206.50(a)(16)-When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.

2.2 Linking and Indexing State Websites (1 TAC § 206.55)

All new or changed HTML documents on an OAG Website that meet the criteria of a "state publication," as defined by the Texas State Library and Archives Commission, shall include the meta tags required by the Texas State Library and Archives Commission. 13 TAC § 3.9.

“State publication” is defined as information in any format that is produced by the authority of or at the total or partial expense of a state agency or is required to be distributed under law by the agency and is publicly distributed by or for the agency. The term does not include information the distribution of which is limited to contractors with or grantees of the agency, persons within

the agency or within other government agencies, or members of the public under a request made under the open records law, if it does not otherwise meet the definition of a state publication.

The home page of the OAG Website shall incorporate TRAIL (Texas Records and Information Locator) metadata and shall:

- provide links to the following State of Texas resources:
 - Texas home page;
 - Texas Homeland Security Website;
 - Link Policy, or the Site Policies page; and
 - TRAIL, Statewide Search Website.

- provide individual links to the following information, or to the site policies page with links to the following:
 - privacy and security policy;
 - agency contact information;
 - description of the Open Records/Public Information Act policy and procedures of the OAG; and Compact with Texans.

- all key public entry points shall provide a link to the following:
 - OAG home page;
 - individual links to the following, or link to the site policies page with links to the following:
 - OAG contact information; and
 - privacy and security policy.

Chapter 3: Functional Performance Criteria for Websites and Applications

3.1 Overview

3.2 Criteria to Assist Users with Visual Impairment

3.3 Criteria to Assist Users with Hearing Impairment

3.4 Criteria to Assist Users with Speech Impairment

3.5 Criteria to Assist Users with Motor Skills Impairment

3.1 Overview

1 TAC § 206.1(2) Accessible - A Web page that can be used in a variety of ways and that does not depend on a single sense or ability.

The OAG shall take reasonable steps to make websites and web-oriented applications accessible to all users.

3.2 Criteria to Assist Users with Visual Impairment

1 TAC § 213.15(1) - At least one mode of operation and information retrieval that does not require user vision shall be provided, or support for assistive technology used by people who are blind or visually impaired shall be provided.

1 TAC § 213.15(2) - At least one mode of operation and information retrieval that does not require visual acuity greater than 20/70 shall be provided in audio and enlarged print used by people who are visually impaired shall be provided.

3.3 Criteria to Assist Users with Hearing Impairment

1 TAC § 213.15(3) - At least one mode of operation and information retrieval that does not require user hearing shall be provided, or support for assistive technology used by people who are deaf or hard of hearing shall be provided.

1 TAC § 213.15(4) - Where audio information is important for the use of a product, at least one mode of operation and information retrieval shall be provided in an enhanced auditory fashion, or support for assistive hearing devices shall be provided.

3.4 Criteria to Assist Users with Speech Impairment

1 TAC § 213.15(5) - At least one mode of operation and information retrieval that does not require user speech shall be provided, or support for assistive technology used by people with disabilities shall be provided.

3.5 Criteria to Assist Users with Motor Skills Impairment

1 TAC § 213.15(6) - At least one mode of operation and information retrieval that does not require fine motor control or simultaneous actions and that is operable with limited reach and strength shall be provided.

Chapter 4: Electronic Forms

4.1 Overview

- 4.1.1 Forms Instructions
- 4.1.2 Privacy Legend

4.2 Translation of Online Forms

4.1 Overview

1 TAC § 206.50(a)(14) - When electronic forms are designed to be completed on-line, the form shall allow people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.

4.1.1 Forms Instructions

When the OAG determines it is necessary, it will include instructions within the form to meet user needs and accessibility requirements.

4.1.2 Privacy Legend

1 TAC § 206.54(2)(B) - Each non-judiciary state governmental body that collects information about an individual by means of a form that the individual completes and files with the state governmental body in a paper format or in an electronic format on an Internet site shall prominently state, on the paper form and prominently post on the state governmental body's Internet site in connection with the electronic form, that:

- i. with few exceptions, the individual is entitled on request to be informed about the information that the state governmental body collects about the individual;*
- ii. the individual is entitled to receive and review the information; and*
- iii. the individual is entitled to have the state governmental body correct incorrect information about the individual.*

4.2 Translation of Online Forms

Tex. Gov't Code § 2054.116(b) – Each state agency shall make a reasonable effort to ensure that Spanish-speaking persons of limited English proficiency can meaningfully access state agency information online.

For information on the translation of online forms, please see Chapter 10: Spanish Language Translation.

Chapter 5: Software Applications and Electronic Information Resources

5.1 Software Applications Scope

5.2 Software Applications and Operating Systems

- 5.2.1 Keyboard Access
- 5.2.2 Compatibility with Assistive Technology and
- Accessibility Features of Operating Systems
- 5.2.3 On-Screen Focus
- 5.2.4 Access to User Interface Elements
- 5.2.5 Use of Images to Identify Application Controls
- 5.2.6 Access to Textual Information
- 5.2.7 User-Selected Contrast and Color Selections
- 5.2.8 Restrictions on Use of Animation
- 5.2.9 Conveying Information through the Use of Color and Sound
- 5.2.10 Support for Color and Contrast Settings
- 5.2.11 Restrictions on Use of Flashing or Blinking Objects
- 5.2.12 Use of User Inputs

5.1 Software Applications and Operating Systems

All OAG software applications developed, procured, or changed on or after September 1, 2006, must comply with the provisions of 1 TAC §213.10.

5.2 Software Applications and Operating Systems

5.2.1 Keyboard Access

1 TAC § 213.10(1) - When software is designed to run on a system that has a keyboard, product functions shall be executable from a keyboard where the function itself or the result of performing a function can be discerned textually.

5.2.2 Compatibility with Assistive Technology and Accessibility Features of Operating Systems

1 TAC § 213.10(2) - Applications shall not disrupt or disable activated features of other products that are identified as accessibility features, where those features are developed and documented according to industry standards. Applications also shall not disrupt or disable activated features of any operating system that are identified as accessibility features where the application programming interface for those accessibility features has been documented by the manufacturer of the operating system and is available to the product developer.

5.2.3 On-Screen Focus

1 TAC § 213.10(3) - A well-defined on-screen indication of the current focus shall be provided that moves among interactive interface elements as the input focus changes. The focus shall be programmatically exposed so that assistive technology can track focus and focus changes.

5.2.4 Access to User Interface Elements

1 TAC § 213.10(4) - Sufficient information about a user interface element including the identity, operation and state of the element shall be available to assistive technology. When an image represents a program element, the information conveyed by the image must also be available in text.

5.2.5 Use of Images to Identify Application Controls

1 TAC § 213.10(5) - When bitmap images are used to identify controls, status indicators, or other programmatic elements, the meaning assigned to those images shall be consistent throughout an application's performance.

5.2.6 Access to Textual Information

1 TAC § 213.10(6) - Textual information shall be provided through operating system functions for displaying text. The minimum information that shall be made available is text content, text input caret location, and text attributes.

5.2.7 User-Selected Contrast and Color Selections

1 TAC § 213.10(7) Applications shall not override user selected contrast and color selections and other individual display attributes.

5.2.8 Restrictions on Use of Animation

1 TAC § 213.10(8) - When animation is displayed, the information shall be displayable in at least one non-animated presentation mode at the option of the user.

5.2.9 Conveying Information through the Use of Color and Sound

1 TAC § 213.10(9) - Color coding shall not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.

5.2.10 Support for Color and Contrast Settings

1 TAC § 213.10(10) - When a product permits a user to adjust color and contrast settings, a variety of color selections capable of producing a range of contrast levels shall be provided.

5.2.11 Restrictions on Use of Flashing or Blinking Objects

1 TAC § 213.10(11) - Software shall not use flashing or blinking text, objects, or other elements having a flash or blink frequency greater than 2 Hz and lower than 55 Hz.

5.2.12 Use of User Inputs

1 TAC § 213.10(12) - When electronic forms are used, the form shall allow people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.

Chapter 6: Testing and Validation

6.1 Testing and Validation Procedure

6.2 Automated Testing/Validation Tools

6.3 Manual Testing/Validation

1 TAC § 206.50(b) – All new or changed Web page/site designs shall be tested by the state agency using one or more [section] 508 compliance tools in conjunction with manual procedures to validate compliance with this chapter. State agencies shall establish policies to monitor their website for compliance with this chapter. Additional information about testing tools and resources are available on the [Department of Information Resources'] website. See <http://www.dir.state.tx.us>.

6.1 Testing and Validation

To ensure that OAG electronic and information resources are designed with consideration for the widest range of user abilities, all OAG developers, publishers, and content providers must be responsible for validating that their electronic and information resources meet applicable accessibility requirements prior to publishing.

The OAG has a plan to monitor its electronic and information resources for compliance with applicable accessibility requirements. See Chapter 1.3 (Compliance Plan) of this procedures manual.

6.2 Automated Testing/Validation Tools

Any automated testing and/or validation tools used for accessibility compliance must include functionality that determines the conformance of electronic and information resources to accessibility checks which can be executed automatically. It is also desirable that the tool

effectively assist reviewers in performing accessibility checks which need to be evaluated manually.

6.3 Manual Testing/Validation

Manual testing and validation of electronic and information resources for accessibility compliance should be organized by OAG personnel to complement any automated testing and validation.

Chapter 7: Telecommunications Products and Systems

7.1 Overview

- 7.1.1 Telecommunications

7.2 Requirements for Timed Response, Caller ID and Advanced Telecommunications Features

- 7.2.1 Timed Responses
- 7.2.2 Caller ID and Other Visual Displays

7.3 Volume Control and Compatibility with Hearing Aids and Hearing Technologies

- 7.3.1 Volume Control
- 7.3.2 Audio Output
- 7.3.3 Transmission information

7.4 Access to Operable Controls and Keys

7.1 Overview

All OAG telecommunications equipment and systems acquired on or after September 1, 2006 must meet the applicable accessibility requirements of Title 1, Chapter 213 of the Texas Administrative Code.

To better serve the needs of individuals with varying disabilities in accessing telecommunications and call centers, OAG divisions are encouraged to provide:

- alternative input controls including voice command and
- access to live operators for users experiencing difficulty with automated systems.

For compliance procedure requirements, see Chapter 1: Overview, 1.3 Compliance.

For telecommunications systems and equipment purchasing requirements, see Chapter 9: Procurement and Contracts for Electronic and Information Resources.

7.1.1 Telecommunications

1 TAC § 213.1 (14) Telecommunications - The 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.

The term “telecommunications” applies to the transmission of actual information and the means of transmittal. For example, telecommunications include both a voice mail message as a piece of actual information and a telephone system as a means of transmittal.

7.2 Requirements for Timed Response, Caller ID and Advanced Telecommunications Features

7.2.1 Timed Responses

1 TAC §213.11(4) - Voice mail, messaging, auto-attendant, and interactive voice response telecommunications systems that require a response from a user within a time interval, shall give an alert when the time interval is about to run out, and shall provide sufficient time for the user to indicate more time is required.

Telecommunication systems must alert users when their response time is limited.

Users must be permitted to indicate if more time is needed to respond before being disconnected. When the user requests additional response time the system will grant additional time.

7.2.2 Caller ID and Other Visual Displays

1 TAC § 213.11(5) - Where provided, caller identification and similar telecommunications functions shall also be available for users of TTYs, and for users who cannot see displays.

The information available on the display of telecommunications equipment, including caller ID, must be available to users through synthetic speech or other means of access.

7.3 Volume Control and Compatibility with Hearing Aids and Hearing Technologies

7.3.1 Volume Control

1 TAC § 213.11(6) - For transmitted voice signals, telecommunications products shall provide a gain adjustable up to a minimum of 20 dB. For incremental volume control, at least one intermediate step of 12 dB of gain shall be provided.

Stepped volume controls must provide users with an intermediate level of at least 12 dB (decibel) gain. There is no requirement for an intermediate level for volume controls that allow the user to set volume anywhere from 0 dB to 20 dB.

1 TAC § 213.11(7) - If the telecommunications product allows a user to adjust the receive volume, a function shall be provided to automatically reset the volume to the default level after every use.

User-adjusted volume controls must automatically reset to the default setting after every use to help protect the hearing of the equipment's other users.

7.3.2 Audio Output

1 TAC § 213.11(8) - Where a telecommunications product delivers output by an audio transducer which is normally held up to the ear, a means for effective magnetic wireless coupling to hearing technologies shall be provided.

Telephone receivers must be equipped with hearing aid compatibility (HAC) to eliminate acoustic feedback for individuals using hearing aids.

1 TAC § 213.11(9) - Interference to hearing technologies (including hearing aids, cochlear implants, and assistive listening devices) shall be reduced to the lowest possible level that allows a user of hearing technologies to utilize the telecommunications product.

Telephone system interference must be reduced to as low a level as possible for users with hearing aids and listening devices to better utilize their assistive technology.

7.3.3 Transmission information

1 TAC § 213.11(10) - Products that transmit or conduct information or communication, shall pass through cross-manufacturer, non-proprietary, industry-standard codes, translation protocols, formats or other information necessary to provide the information or communication in a usable format. Technologies which use encoding, signal compression, format transformation, or similar techniques shall not remove information needed for access or shall restore it upon delivery.

7.4 Access to Operable Controls and Keys

1 TAC § 213.11(11) - Products which have mechanically operated controls or keys, shall comply with the following:

(A) Controls and keys shall be tactilely discernible without activating the controls or keys.

Individual keys must be identifiable and discernable from adjacent keys by touch. Keyboards must allow users to identify controls and keys by touch without automatically activating a function.

For example, placement of a raised dot on the telephone keypad's number 5 key can assist the user in achieving non-visual orientation of the keypad.

(B) Controls and keys shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate controls and keys shall be 5 lbs. (22.2 N) maximum.

Telecommunications products must not require users to exert more than 5 lbs. (22.2 N) of force to activate keys and controls.

(C) If key repeat is supported, the delay before repeat shall be adjustable to at least 2 seconds. Key repeat rate shall be adjustable to 2 seconds per character.

Telecommunications products with supported key repeat must allow the user to adjust time between keystrokes to at least 2 seconds to prevent the user from making unintended

keystrokes.

(D) The status of all locking or toggle controls or keys shall be visually discernible, and discernible either through touch or sound.

Special keys such as the "caps lock" and "scroll lock" keys should be tactilely discernible or otherwise alert the user with an audible indication that the function has been engaged.

*The preceding requirements do not apply to touch screen technology.

Chapter 8: Self-Contained Products and Office Equipment

8.1 Self-Contained Products

- 8.1.1 Timed Response
- 8.1.2 Access to Touch Screens and Contact Sensitive-Controls
- 8.1.3 Biometric Controls and Identification
- 8.1.4 Access to Audio Output
- 8.1.5 Volume Control
- 8.1.6 Color Coding Restrictions
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8.2 Position of Operable Controls for Fixed Freestanding Products

8.3 Desktop and Portable Computers

- 8.3.1 Operable Controls and Keys
- 8.3.2 Access to Touch Screen and Touch Operated Controls
- 8.3.3 Restrictions on Biometric Access and Control
- 8.3.4 Industry Standard Computer Slots, Ports, and Connectors
- 8.3.5 Video and Multimedia Products

8.4 Access to Product Documentation and Support

- 8.4.1 Access to Product Technical Support

This chapter addresses accessibility requirements for office equipment and products that meet the definition of electronic and information resources and that are acquired or produced by the OAG on or after September 1, 2006.

8.1 Self-Contained Products

1 TAC § 213.13(1) - Self-contained products shall be usable by people with disabilities without requiring an end-user to attach assistive technology to the product. Personal headsets for private listening are not assistive technology.

Self-contained, closed products are defined as products that generally have embedded software and are commonly designed in such a fashion that a user cannot easily attach or install assistive technology. This rule requires that self-contained products which do not readily permit the installation of industry standard assistive technology by end-users must be natively accessible and comply with the following standards.

8.1.1 Timed Response

1 TAC § 213.13(2) - When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.

Users must be prompted and allowed to request additional time to complete information transactions requiring a timed response. When the user requests additional response time, the system must grant additional time.

8.1.2 Access to Touch Screens and Contact Sensitive-Controls

1 TAC § 213.13(3) - Where a product utilizes touch screens or contact-sensitive controls, an input method shall be provided that complies with Telecommunications products in § 213.11(11)(A)-(D) of this subchapter.

The accessibility requirements for input controls are found in Chapter 7: Telecommunications Products and Systems, 7.4 Access to Operable Controls and Keys.

8.1.3 Biometric Controls and Identification

1 TAC § 213.13(4) - When biometric forms of user identification or control are used, an alternative form of identification or activation, which does not require the user to possess particular biological characteristics, shall also be provided.

User identification and security controls for self-contained products may not solely depend upon fingerprint scans, retina scans, voice recognition, or other biological means of identification or activation. An alternate, accessible means of access and/or input must be provided.

8.1.4 Access to Audio Output

1 TAC § 213.13(5) - When products provide auditory output, the audio signal shall be provided at a standard signal level through an industry standard connector that will allow for private listening. The product must provide the ability to interrupt, pause, and restart the audio at anytime.

The use of a standard headphone jack to access an audio output signal is an example of a product specification that addresses the requirement for an industry standard connector. Input controls must allow the user to interrupt, pause, and restart information delivered through the product's audio signal.

8.1.5 Volume Control

1 TAC § 213.13(6) - When products deliver voice output in a public area, incremental volume control shall be provided with output amplification up to a level of at least 65 dB. Where the ambient noise level of the environment is above 45 dB, a volume gain of at least 20 dB above the ambient level shall be user selectable. A function shall be provided to automatically reset the volume to the default level after every use.

8.1.6 Color Coding Restrictions

1 TAC § 213.13(7) - Color coding shall not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.

Products may not use color as the only method of imparting information or meaning to a user or indicating an option for the operation of product controls (e.g., the "Stop" button on a copy machine

should not only be colored red but also be labeled with the text "Stop").

8.1.7 Product Support for Color and Contrast Settings

1 TAC § 213.13(8) - When a product permits a user to adjust color and contrast settings, a range of color selections capable of producing a variety of contrast levels shall be provided.

8.1.8 Product Restrictions on Use of Flashing and Blinking Objects

1 TAC § 213.13(9) - Products shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.

It is recommended that flashing objects be avoided whenever possible. This rule is intended to prevent triggering seizures in people with photo-sensitive epilepsy.

8.2 Position of Operable Controls for Fixed Freestanding Products

1 TAC § 213.13(10) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following:

- (A) The position of any operable control shall be determined with respect to a vertical plane, which is 48 inches in length, centered on the operable control, and at the maximum protrusion of the product within the 48 inch length.*
- (B) Where any operable control is 10 inches or less behind the reference plane, the height shall be 54 inches maximum and 15 inches minimum above the floor.*
- (C) Where any operable control is **more** than 10 inches and not more than 24 inches behind the reference plane, the height shall be 46 inches maximum and 15 inches minimum above the floor.*
- (D) Operable controls shall not be more than 24 inches behind the reference plane.*

8.3 Desktop and Portable Computers

All OAG purchases or leases of desktop and portable computers on or after September 1, 2006, must comply with the requirements of 1 TAC § 213.14.

8.3.1 Operable Controls and Keys

1 TAC § 213.14(1) - All mechanically operated controls and keys shall comply with Telecommunications products in § 213.11(11)(A) - (D) of this subchapter.

Operable controls are defined as components of a product that require physical contact for normal operation. Operable controls include, but are not limited to, mechanically operated controls, input and output trays, card slots, keyboards, and keypads. See Chapter 7: Telecommunications, 7.4 Access to Operable Controls and Keys.

8.3.2 Access to Touch Screen and Touch Operated Controls

1 TAC § 213.14(2) - If a product utilizes touch screens or touch- operated controls, an input method shall be provided that complies with Telecommunications products in § 213.11(11)(A) - (D) of this subchapter.

See Chapter 7: Telecommunications, 7.4 Access to Operable Controls and Keys.

8.3.3 Restrictions on Biometric Access and Control

1 TAC § 213.14(3) - When biometric forms of user identification or control are used, an alternative form of identification or activation, which does not require the user to possess particular biological characteristics, shall also be provided.

Computer access and control may not solely depend upon fingerprint scans, retina scans, voice recognition, or other biological means of identification or activation. An alternate, accessible means of access and/or input must be provided.

8.3.4 Industry Standard Computer Slots, Ports, and Connectors

1 TAC § 213.14(4) Where provided, at least one of each type of expansion slots, ports and connectors shall comply with publicly available industry standards.

8.3.5 Video and Multimedia Products

1 TAC §213.12(1) - Television tuners, including tuner cards for use in computers, shall be equipped with secondary audio program playback circuitry.

The Secondary Audio Program playback circuitry provides an industry standard audio channel for the playback of audio description of visual elements for video and multimedia content.

8.4 Access to Product Documentation and Support

1 TAC § 213.16(1) - Product support documentation provided to end- users shall be made available in alternate formats upon request, at no additional charge.

Vendors must provide users with product support documentation, including users' manuals and operating instructions, in an alternate format upon request. Alternate formats may include electronic files, audio files, large print, or braille documentation. OAG staff should contact the ITS Division for the requested documentation.

1 TAC § 213.16(2) - End-users shall have access to a description of the accessibility and compatibility features of products in alternate formats or alternate methods upon request, at no additional charge.

8.4.1 Access to Product Technical Support

1 TAC § 213.16(3) - Support services for products shall accommodate the communication needs of end-users with disabilities.

The provision of technical support must accommodate the communication needs of individuals with disabilities within the functional performance criteria and accessibility standards outlined in Chapter 3 of this procedures manual and other chapters and sections as applicable. For example, individuals who

are deaf must have access to support through accessible telecommunications and through alternate means of support as required when this support is otherwise available to any customer within the terms of use of a product. Likewise, individuals who are blind must have access to Web-based, telephone, and other support, without barriers to standard assistive technology or other accessible products used to access that support.

Chapter 9: Procurement and Contracts for Electronic and Information Resources

- 9.1 Overview
- 9.2 Embedded Technology
- 9.3 Procurement Accessibility Plan
- 9.4 Access by Alternate Means
- 9.5 State Contracts

9.1 Overview

1 TAC § 213.18(b)(1) - Unless an exception is approved by the executive director of the state agency pursuant to § 2054.460, Texas Government Code, and § 213.17 of this chapter, or unless an exemption is approved by the [Department of Information Resources], all electronic and information resources products developed, procured or changed through a procured services contract, and all electronic and information resource services provided through hosted or managed services contracts, shall comply with the provisions of Chapter 206 and Chapter 213 of this title, as applicable.

1 TAC § 213.18(b)(3) - This subchapter applies to electronic and information resources developed, procured, or changed by an agency, or developed, procured, or changed by a contractor under a contract with an agency which requires the use of such product, or requires the use, to a significant extent, of such product in the performance of a service or the furnishing of a product.

Effective September 1, 2006, all OAG procurement of electronic and information resources must comply with accessibility requirements in this procedures manual in addition to other applicable procurement requirements. The OAG will:

- 1) purchase accessible electronic and information resources, unless an exception is granted pursuant to Chapter 1.3.1 of this procedures manual;
- 2) include accessibility requirements when developing specifications in bid documents for electronic and information resources purchases; and
- 3) include a uniform accessibility clause in solicitations to contractors and vendors.

9.2 Embedded Technology

Electronic and information resources equipment that contains embedded information resources that are used as an integral part of the product, but the principal function of which is not the acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of information is not considered an electronic and information resource for purposes of Title 1, Chapters 206 and 213 of the Texas Administrative Code. See Tex. Gov't Code § 2054.462.

Heating, ventilation, and air conditioning equipment such as thermostats and temperature control

devices are examples of such embedded technology.

9.3 Procurement Accessibility Plan – 1 TAC § 213.18(b)(2)

The accessibility standards in other chapters of this procedures manual will be used when OAG personnel make procurement decisions to ensure compliance with any applicable accessibility standards. These accessibility standards will also be used to develop solicitation specifications and statements of work. When planning an electronic and information resources purchase, the OAG will:

- consider the uses of the electronic and information resources goods and services,
- include specifications and statements of work in solicitations that meet the needs of the agency and
- comply with the accessibility standards in this procedure manual, and
- evaluate whether responses to solicitations are responsive to accessibility requirements.

9.4 Access by Alternate Means

1 TAC § 213.18(b)(5) - Nothing in this subchapter is intended to prevent the use of designs or technologies as alternatives to those prescribed in this subchapter provided they result in substantially equivalent or greater access to and use of a product for people with disabilities.

The OAG may develop or procure technologies that do not strictly follow the accessibility standards described in this procedure manual but still result in an outcome of equivalent or better access to the same information for individuals with disabilities.

9.5 State Contracts

A contract may require the contractor to use electronic and information resources to a significant extent in performing a service or furnishing a product. Whether electronic and information resources are directly or indirectly required, the contractor must comply with accessibility standards described in this procedures manual.

Incidental uses of electronic and information resources in the performance of a contract do not fall under this procedure. If electronic and information resources are used to access and/or manipulate information by a contractor's employees and is not used by the public, the electronic and information resources are considered incidental or insignificant for purposes of the contract.

In addition to terms and conditions that may be required by other statutory, regulatory, and purchase requirements, a contract that directly or indirectly requires the purchase of electronic and information resources will contain sufficient language to hold the contractor accountable for fulfilling applicable accessibility requirements.

Chapter 10: Spanish Language Translation

Section 2054.116 of the Texas Government Code directs state agencies to make a reasonable effort to ensure meaningful access to their online information for Spanish-speaking individuals with limited English proficiency (LEP).

An individual with LEP is a person whose primary language is other than English and whose English language skills are such that the person has difficulty interacting effectively with a state agency. Tex. Gov't Code § 2054.116(a). This procedures manual addresses the replacement of English text (source language) with an equivalent Spanish text (target language).

Pursuant to section 2054.116(c) of the Government Code, and to help determine whether Spanish-speaking individuals with LEP have meaningful access, the OAG shall consider the following:

- Number or proportion of Spanish-speaking individuals with LEP in the OAG's eligible service population;
- Frequency with which Spanish-speaking individuals with LEP seek agency information or contact regarding OAG programs;
- Importance of the services provided by the OAG's programs; and
- Resources available to the OAG.

Pursuant to section 2054.116(d) of the Government Code, the OAG must avoid the following when making a reasonable effort to provide meaningful access:

- Providing information in Spanish that is limited in scope;
- Unreasonably delaying the provision of information in
- Spanish; and
- Providing program information, including forms, notices, and correspondence, in English only.

Note: This does not apply to interactive applications provided through Texas Online. Tex. Gov't Code § 2054.116(e).

The OAG must review the online information that it provides to the public in relation to the requirements of section 2054.116 of the Government Code

Chapter 11: Training

With the assistance of the IT Division, the OAG's Accessibility Coordinator will ensure that appropriate OAG personnel receive the training necessary to meet all accessibility- related rules. See 1 TAC § 213.19(2).