

VPAT™ for iOS 10

The following Voluntary Product Accessibility information refers to the **iOS 10 operating system**. For more information on accessibility features in iOS and to find out about available applications and peripheral devices visit Apple’s accessibility web site at <http://www.apple.com/accessibility>

Voluntary Product Accessibility Template
Summary Table

Criteria	Supporting Features	Remarks and explanations
Section 1194.21 Software Applications and Operating Systems	Please refer to the attached VPAT	
Section 1194.22 Web-based internet information and applications	Not Applicable	
Section 1194.23 Telecommunications Products	Not Applicable	
Section 1194.24 Video and Multi-media Products	Not Applicable	
Section 1194.25 Self-Contained, Closed Products	Not Applicable	
Section 1194.26 Desktop and Portable Computers	Not Applicable	
Section 1194.31 Functional Performance Criteria	Please refer to the attached VPAT	
Section 1194.41 Information, Documentation, and Support	Please refer to the attached VPAT	

Subpart B -- Technical Standards
Section 1194.21 Software Applications and Operating Systems

Criteria	Supporting Features	Remarks and explanations
<p>(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.</p>	<p>Supported with exceptions</p>	<p>iOS is a gesture based operating system built to function on Apple touchscreen devices. iOS provides an onscreen keyboard as well as the ability to connect to wireless keyboards and Braille displays.</p> <p>iOS includes Switch Control, which allows you to control iOS devices using an adaptive device such as a switch or a single tap on the touchscreen. Switch Control works with a variety of popular Bluetooth-enabled switch hardware.</p> <p>iOS also includes VoiceOver, a screen reader that provides control of the device using a VoiceOver cursor. VoiceOver can navigate to and read “static” (non-editable) text and gather status information about the device. It is built into the iOS operating system and can be activated by pressing the home button 3 times at initial set up or by activating it in the Accessibility settings menu.</p>
<p>(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.</p>	<p>Supported</p>	<p>iOS includes an accessibility API that enables applications to interact with assistive technologies without disrupting the system or each other. Details of the Accessibility API are available on the Apple Developer web site: https://developer.apple.com/technologies/ios/accessibility.html</p>
<p>(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.</p>	<p>Supported</p>	<p>iOS provides a clear and distinct visual indication of the element focus on-screen.</p> <p>Additionally, the Switch Control cursor is clearly defined and customizable to “Large Cursor” and 5 different colors.</p> <p>The VoiceOver cursor is also clearly defined. The cursor can be increased to “Large Cursor” and used in conjunction with screen magnification. Using VoiceOver, a description of the elements on which these cursors are focused can also be spoken.</p>
<p>(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.</p>	<p>Supported with exceptions</p>	<p>In a few but rare cases, some buttons and controls may not include names or reflect their state.</p> <p>VoiceOver, however, enables users to assign labels to unlabeled buttons and controls.</p> <p>The iOS Accessibility API allows applications to provide information about the identity, operation, and state of elements in applications and in the operating system interface itself.</p> <p>Application developers can learn about how to ensure that their application correctly utilizes the Accessibility API at the Apple Developer Web site: https://developer.apple.com/technologies/ios/accessibility.html</p>

(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.	Supported	Images used in iOS are used in a consistent manner. Apple provides Human Interface Guidelines that instruct developers of iOS applications to support this as well. They are provided on the Internet here: https://developer.apple.com/library/ios/documentation/userexperience/conceptual/mobilehig/
(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.	Supported	iOS provides operating system services for displaying and editing text that includes information about text content, attributes, and text input caret via the Cocoa Touch API.
(g) Applications shall not override user selected contrast and color selections and other individual display attributes.	Supported	iOS provides system-level control of display characteristics that cannot be overridden by applications, including: <ul style="list-style-type: none"> • Users can invert the light and dark colors displayed on the screen. • Users can switch the display from color to grayscale. • Users can choose from a variety of filters and tints and customize intensity • Users can reduce transparency to increase legibility. • Users can reduce the white point to decrease the intensity of bright colors. • Users can magnify the screen, including dynamically changing content like movies. (See section 1194.31(b) for more information about Zoom). <p>All of these features are accessed through the Accessibility settings and can be used together in different combinations to suit the user's needs.</p>
(h) When animation is displayed, the information shall be displayable in at least one non-animated presentation mode at the option of the user.	Supported with exceptions	Animations used for app switching, Messages and Weather are cosmetic only and do not affect the ability to use these features. iOS provides the ability to reduce motion via the Accessibility settings.
(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.	Supported with exceptions	iOS uses color to convey information in On/Off labels, but provides the ability to enable labels in the Accessibility settings. There may be areas in individual apps, such as displaying events in Calendar, that do not provide another means distinguishing a visual element. But iOS provides the ability to customize color filters to support color blindness and other vision challenges.
(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.	Supported	iOS allows for system-level control of display characteristics, and provides the ability to choose intensity and hue among some of them. iOS allows you to reduce transparency to increase legibility; reduce the white point to decrease the intensity of bright colors; darken colors in some native apps; and the Accessibility API provides comparable support for third party apps. Find out more about the Accessibility API at the Apple Developer Web site: https://developer.apple.com/technologies/ios/accessibility.html Switch Control allows you to choose from 5 cursor colors for switch access focus.
(k) 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.	Supported	

(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.	Partially Supported	iOS form elements provide information for assistive technologies via the Accessibility API. VoiceOver enables users to complete HTML “web” forms using the Safari (web browser) application included with iOS.
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Subpart C -- Functional Performance Criteria
Section 1194.31 Functional Performance Criteria

Criteria	Supporting Features	Remarks and explanations
(a) 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.	Supported	<p>iOS includes a built-in screen reader called VoiceOver that enables it to be used by those who are blind or visually impaired. Also, VoiceOver can be controlled via key commands entered on a standard Bluetooth keyboard.</p> <p>Siri supports natural-language voice commands to send messages, schedule meetings, place phone calls, control music playback, input text, speak out content on the screen, check the weather, and more. Siri can talk back to you and read text messages, acknowledge voice commands, respond to questions, and more.</p> <p>VoiceOver is available in 35 languages, and Voice Control is available in 24 languages. Siri supports the prominent languages of 28 countries. For more information about iOS accessibility features, see www.apple.com/accessibility/ios/</p> <p>iOS supports more than 70 Bluetooth wireless Braille displays (sold separately) and Braille tables for more than 25 international languages. Some Braille displays provide input buttons that can be used in addition to iOS on screen controls.</p>
(b) 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 output working together or independently, or support for Assistive Technology used by people who are visually impaired shall be provided.	Supported	<p>iOS includes a feature called Zoom, which can magnify the screen up to 1,500% and includes multiple Zoom modes. For more information about iOS accessibility features, see www.apple.com/accessibility/ios/</p> <p>iOS also includes the features Display Zoom- which makes content and apps appear larger and easier to read, and Easy Reach- which allows content on the screen to shift down closer to your thumb.</p> <p>iOS includes a feature called Magnifier that works like a digital magnifying glass for real-life objects. It uses the camera on an iOS device, and includes support for color filters and the ability to take a photo to get a static close-up of the item in question.</p>

<p>(c) 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</p>	<p>Supported</p>	<p>iOS includes a variety of Accessibility features to assist those who are deaf and hard of hearing:</p> <p>Software TTY – iOS lets you make and receive TTY phone calls from your iPhone without the need for TTY hardware. Transcripts are saved in the call history of the Phone app.</p> <p>Mono Audio – combines left and right stereo channels into a mono signal played through both left and right speakers and headphones so all of the audio program can be heard more easily.</p> <p>FaceTime – Some users may be able to use the FaceTime video calling feature for sign language communications. FaceTime requires that both parties to the call have an internet connection (e.g., via WiFi or cellular data service) and a device capable of making a FaceTime video call.</p> <p>iMessage - a free Apple service, enables text messaging between iOS devices and can include photos, videos, contacts, and locations.</p> <p>Closed Captions and Subtitles - iOS also supports playback of closed caption content and subtitles (when available).</p> <p>LED Camera Flash (iPhone only) - iPhone provides a visual indication of alert sounds via the LED Camera Flash.</p> <p>Notifications – Applications can notify the user of important information using the notification system built into iOS. Notifications appear in the middle of the screen making them easy to view.</p> <p>Made for iPhone Hearing Aids – iOS is compatible with Made for iPhone hearing aids.</p> <p>For more information, see www.apple.com/accessibility/ios/</p>
<p>(d) 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.</p>	<p>Not Applicable</p>	<p>iOS is compatible with Made for iPhone hearing aids. For more information, see www.apple.com/accessibility/ios/hearing-aids/</p>
<p>(e) 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.</p>	<p>Supported</p>	<p>iOS includes Switch Control which provides an alternate method for navigating and making onscreen selections. Switch Control will cycle through and emphasize the available onscreen options, and users can make their desired selection by tapping the screen or using supported assistive devices.</p>

<p>(f) 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.</p>	<p>Supported</p>	<p>Using iOS on a touchscreen requires the use of a bare finger or conductive device. Users with motor skills or other disabilities that prevent them from having direct skin contact with the touchscreen may also choose to use a conductive stylus.</p> <p>iOS includes a number of Accessibility features to support motor control:</p> <ul style="list-style-type: none"> • AssistiveTouch, which provides an alternative set of screen gestures for users who may have difficulty touching the screen or pressing the device buttons. AssistiveTouch is compatible with joysticks and other adaptive accessories. • Switch Control, which provides an alternate method for navigating and making onscreen selections. Switch Control will cycle through and emphasize the available onscreen options, and users can make their desired selection by tapping the screen, or using supported assistive devices or Bluetooth keyboards. • Touch Accommodations, which provides a means to adjust how the screen responds to touches, such as controlling how long you touch before it's recognized or whether it ignores repeated touches. • For devices that support 3D Touch, iOS allows the user to change the force required to activate 3D Touch in Accessibility settings. AssistiveTouch and Switch Control also provide means for activating 3D Touch functionality without applying force to the screen. <p>iOS includes Guided Access which allows a parent, teacher, or administrator to limit an iOS device to one app by disabling the Home button and restrict touch input on certain areas of the screen.</p> <p>For more information about iOS accessibility features and solutions, see www.apple.com/accessibility/ios/</p> <p>Some Bluetooth wireless Braille displays provide input buttons that can be used in addition to iOS on-screen controls.</p>
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Subpart D -- Information, Documentation, and Support
Section 1194.41 Information, Documentation, and Support

<p>Section 1194.41 a) Product support documentation provided to end-users shall be made available in alternate formats upon request, at no additional charge</p>	<p>Supported with exceptions</p>	<p>Hardware specific iOS documentation is available on each device in HTML format via the web and can be read on-screen using the built-in screen reader VoiceOver. Documentation is also available in accessible HTML, and electronic .brf Braille at no charge. Charges may apply for embossed Braille.</p> <p>iOS online help also provides information on how to use Accessibility features.</p>
<p>Section 1194.41 (b) 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.</p>	<p>Supported</p>	<p>Information about Apple product accessibility and compatibility features is available on the Web in an HTML format that is compatible with screen readers for the blind and visually impaired, including the built-in iPhone screen reader VoiceOver, can be displayed in large print using web browsers and software magnifiers for those with low vision at http://www.apple.com/accessibility and can be printed using a personal computer and suitable printing device.</p>
<p>1194.41 (c) Support services for products shall accommodate the communication needs of end-users with disabilities.</p>	<p>Supported</p>	<p>Support via the Internet is available through the Apple Knowledge base at http://www.apple.com/support.</p> <p>For additional information on the many service and support options offered by Apple visit www.apple.com/support.</p>

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