



# **Section 508 Conformance Audit**

## **Voluntary Product Accessibility Template**

*Citrix XenDesktop 4*  
**Version 1.1**

**Citrix Systems, Inc.**  
851 West Cypress Creek Road  
Fort Lauderdale, FL 33309

## Section 508 Evaluation Template

This Voluntary Product Accessibility Template (VPAT) provides guidance on the accessibility characteristics of Citrix XenDesktop 4 as of 11/16/2011.

**Name of Product:** Citrix XenDesktop

**Version:** 4

Components covered: Citrix Desktop Delivery Controller Installer, Citrix Delivery Services Console, Web Interface Management Console, Web Interface, Active Directory Configuration Wizard

The current version of the **Citrix XenDesktop 4** was tested for conformance with Section 508 of the Rehabilitation Act, specifically, the U.S. Access Board's Technical Requirements. This product was tested as of **November 16, 2011** and is only valid for the version and date it was tested.

**VPAT™ Summary Table**  
**Voluntary Product Accessibility Template®**

<b>VPAT Summary</b>	<b>Total Standards</b>	<b>Total Applicable Standard</b>	<b>Supports</b>	<b>Exceptions</b>	<b>Remarks</b>
Section 1194.21 Software Applications and Operating Systems	12	10	5	5	Applicable. See included 1194.21 table
Section 1194.22 Web-based Internet Information and Applications	16	7	7	0	Applicable. See included 1194.22 table.
Section 1194.23 Telecommunications Products	14	0	0	0	XenDesktop is not a product of this type.
Section 1194.24 Video and Multi-media Products	5	0	0	0	XenDesktop is not a product of this type.
Section 1194.25 Self-Contained, Closed Products	13	2	2	0	Applicable. See included 1194.25 table.

Section 1194.26 Desktop and Portable Computers	4	0	0	0	XenDesktop is not a product of this type.
Section 1194.31 Functional Performance Criteria	6	6	5	1	Applicable. See included 1194.31 table.
Section 1194.41 Information, Documentation and Support	3	3	3	0	Applicable. See included 1194.41 table.
<b>Total</b>	<b>73</b>	<b>28</b>	<b>22</b>	<b>6</b>	

<p align="center"><b>Section 1194.21 Software Applications and Operating Systems -- Detail</b>  <b>VPAT™</b>  <b>Voluntary Product Accessibility Template®</b></p>		
<b>Criteria</b>	<b>Supporting Features</b>	<b>Remarks and explanations</b>
<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>Supports with Exceptions</p>	<p>Functions can be executed via the keyboard.</p> <p>In the Delivery Services Console, an error message cannot be displayed via the keyboard in the "Create Desktop Group" wizard.</p> <p>In the Web Interface Management console some items in the content pane are not keyboard accessible but they have an equivalent through keyboard accessible menus.</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</p>	<p>Supports with Exceptions</p>	<p>The components used to administer and use XenDesktop do not disable or disrupt accessibility features of the Microsoft Windows operating system and assistive technologies when the assistive technology is run locally.</p> <p>When the Desktop Delivery Controller</p>

<p>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>server was accessed via Windows Remote Desktop Connection, XenDesktop 4 and assistive technology were interfering and caused the assistive technology to not operate correctly (tested using JAWS v11 and v12 screen reader).</p> <p>JAWS v11 and v12 are not compatible with XenDesktop 4. JAWS v13 supports both 32-bit and 64-bit XenDesktop 4 virtual desktops.</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>Supports</p>	<p>There exists a clear indication of current visual focus and assistive technology can track focus programmatically.</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>Supports with Exceptions</p>	<p>Some user interface elements provide the required information including name, role and state to assistive technology.</p> <p>In the Delivery Services Console, a context menu does not provide its name and role information; and spin boxes in "Accessibility Options" do not provide their names.</p> <p>Some controls in the Web Interface Management Console do not provide identifying information to assistive technology.</p>
<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.</p>	<p>Supports</p>	<p>The meaning of images is consistent.</p>
<p>(f) Textual information shall be</p>	<p>Supports</p>	<p>Operating system functions are used for</p>

<p>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.</p>		<p>displaying text.</p>
<p>(g) Applications shall not override user selected contrast and color selections and other individual display attributes.</p>	<p>Supports with Exceptions</p>	<p>The application does not override user selected display settings on some screens.</p> <p>The “Welcome” screen in the Citrix Desktop Delivery Controller Installer does not honor Windows High Contrast settings.</p> <p>Some areas in the Web Interface Management console do not honor Windows High Contrast settings.</p>
<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.</p>	<p>Not Applicable</p>	<p>Animation is not used.</p>
<p>(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.</p>	<p>Supports</p>	<p>Color coding is not used as the sole means of conveying information.</p>
<p>(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.</p>	<p>Not Applicable</p>	<p>The application does not contain functionality to support the changing of display attributes.</p>
<p>(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.</p>	<p>Supports</p>	<p>Blinking and flashing does not occur in the prohibited range.</p>
<p>(l) When electronic forms are</p>	<p>Supports</p>	<p>Some user interface elements provide the</p>

<p>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.</p>	<p>with Exceptions</p>	<p>required information including name, role and state to assistive technology.</p> <p>In the Delivery Services Console, a context menu does not provide its name and role information; and spin boxes in "Accessibility Options" do not provide their names.</p> <p>Some controls in the Web Interface Management Console do not provide identifying information to assistive technology.</p>
---	------------------------	--

<p><b>Section 1194.22 Web-based Internet information and applications -- Detail</b>  <b>VPAT™</b>  <b>Voluntary Product Accessibility Template®</b></p>		
<p><b>Criteria</b></p>	<p><b>Supporting Features</b></p>	<p><b>Remarks and explanations</b></p>
<p>(a) A text equivalent for every non-text element shall be provided (e.g., via "alt", "longdesc", or in element content).</p>	<p>Supports</p>	<p>The Web Interface contains ALT attributes for images.</p>
<p>(b) Equivalent alternatives for any multimedia presentation shall be synchronized with the presentation.</p>	<p>Not Applicable</p>	<p>Multimedia is not used.</p>
<p>(c) Web pages shall be designed so that all information conveyed with color is also available without color, for example from context or markup.</p>	<p>Supports</p>	<p>Color is not used as the sole means of conveying information.</p>
<p>(d) Documents shall be organized so they are readable without requiring an associated style sheet.</p>	<p>Supports</p>	<p>The web pages are readable without using the included style sheet.</p>

<p>(e) Redundant text links shall be provided for each active region of a server-side image map.</p>	<p>Not Applicable</p>	<p>Image map links are not used.</p>
<p>(f) 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.</p>	<p>Not Applicable</p>	<p>Client and server-side image maps are not used.</p>
<p>(g) Row and column headers shall be identified for data tables.</p>	<p>Not Applicable</p>	<p>Data tables are not used.</p>
<p>(h) 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.</p>	<p>Not Applicable</p>	<p>Data tables are not used.</p>
<p>(i) Frames shall be titled with text that facilitates frame identification and navigation</p>	<p>Not Applicable</p>	<p>Frames are not used.</p>
<p>(j) Pages shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.</p>	<p>Supports</p>	<p>Flickering does not occur in the prohibited range.</p>
<p>(k) A text-only page, with equivalent information or functionality, shall be provided to make a web site comply with the provisions of this part, when compliance cannot be accomplished in any other way. The content of the text-only page shall be updated whenever the primary page changes.</p>	<p>Not Applicable</p>	<p>A text-only page cannot be substituted for an interactive web application.</p>
<p>(l) When pages utilize scripting languages to display content, or to create interface elements, the information provided by the script</p>	<p>Supports</p>	<p>Interface elements can be read by assistive technology.</p>

shall be identified with functional text that can be read by Assistive Technology.		
( m) 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 §1194.21(a) through (l).	Supports	A plug-in is required to use the virtual desktops. The Web Interface provides a link to download the required plug-in if it is not present on the user's machine.
(n) 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.	Supports	Forms are accessible. They are keyboard operable and form fields are explicitly labeled.
(o) A method shall be provided that permits users to skip repetitive navigation links.	Not Applicable	The Web Interface does not contain repetitive navigation links that need to be skipped.
(p) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.	Not Applicable	A timed response is not required.

*Note to 1194.22:* The Board interprets paragraphs (a) through (k) of this section as consistent with the following priority 1 Checkpoints of the Web Content Accessibility Guidelines 1.0 (WCAG 1.0) (May 5 1999) published by the Web Accessibility Initiative of the World Wide Web Consortium: Paragraph (a) - 1.1, (b) - 1.4, (c) - 2.1, (d) - 6.1, (e) - 1.2, (f) - 9.1, (g) - 5.1, (h) - 5.2, (i) - 12.1, (j) - 7.1, (k) - 11.4.

<p><b>Section 1194.25 Self-Contained, Closed Products – Detail</b>  <b>VPAT™</b>  <b>Voluntary Product Accessibility Template®</b></p>		
<b>Criteria</b>	<b>Supporting</b>	<b>Remarks and explanations</b>



	<b>Features</b>	
(a) 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.	Not Applicable	This product is not a self-contained, closed product.
(b) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.	Not Applicable	A timed response is not required.
(c) Where a product utilizes touchscreens or contact-sensitive controls, an input method shall be provided that complies with §1194.23 (k) (1) through (4).	Not Applicable	This product is not a self-contained, closed product.
(d) 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.	Not Applicable	This product is not a self-contained, closed product.
(e) 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.	Not Applicable	This product is not a self-contained, closed product.
(f) When products deliver voice output in a public area, incremental volume control shall	Not Applicable	This product is not a self-contained, closed product.

<p>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.</p>		
<p>(g) Color coding shall not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.</p>	<p>Supports</p>	<p>Color coding is not used as the sole means of conveying information</p>
<p>(h) 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.</p>	<p>Not Applicable</p>	<p>The application does not contain functionality support for the changing of color and contrast settings.</p>
<p>(i) Products shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.</p>	<p>Supports</p>	<p>Blinking and flashing does not occur in the prohibited range.</p>
<p>(j) (1) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: 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 on products which are freestanding, non-portable, and intended to be used in one</p>	<p>Not Applicable</p>	<p>This product is a software application and is not a self-contained, closed product.</p>

location and which have operable controls.		
(j)(2) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: 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.	Not Applicable	This product is a software application and is not a self-contained, closed product.
(j)(3) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: 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.	Not Applicable	This product is a software application and is not a self-contained, closed product.
(j)(4) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: Operable controls shall not be more than 24 inches behind the reference plane.	Not Applicable	This product is a software application and is not a self-contained, closed product.

**Section 1194.31 Functional Performance Criteria – Detail**  
**VPAT™**  
**Voluntary Product Accessibility Template®**

<b>Criteria</b>	<b>Supporting Features</b>	<b>Remarks and explanations</b>
-----------------	----------------------------	---------------------------------

<p>(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.</p>	<p>Supports with Exceptions</p>	<p>The application is keyboard accessible. Some controls are not identified for assistive technology, see 1194.21(d) for details.</p> <p>XenDesktop interferes with the JAWS screen reader under some circumstances including not supporting deploying them in a virtual desktop. See 1194.21(b) for details.</p>
<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.</p>	<p>Supports</p>	<p>The application may be used without visual acuity greater than 20/70 when combined with screen magnification assistive technology.</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>Supports</p>	<p>Does not require user hearing to operate or for information retrieval.</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>Supports</p>	<p>Does not require user hearing to operate or for information retrieval.</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>Supports</p>	<p>User speech is not required for operations.</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>Supports</p>	<p>The application is keyboard accessible and does not require fine motor control, simultaneous actions; and may be operated with limited reach and strength.</p>
--	-----------------	---

<p align="center"><b>Section 1194.41 Information, Documentation and Support – Detail VPAT™ Voluntary Product Accessibility Template®</b></p>		
<p><b>Criteria</b></p>	<p><b>Supporting Features</b></p>	<p><b>Remarks and explanations</b></p>
<p>(a) Product support documentation provided to end-users shall be made available in alternate formats upon request, at no additional charge</p>	<p>Supports</p>	<p>Product documentation is available in accessible electronic format.</p>
<p>(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>Supports</p>	<p>Product documentation is available in accessible electronic format.</p>
<p>(c) Support services for products shall accommodate the communication needs of end-users with disabilities.</p>	<p>Supports</p>	<p>Citrix offers support via phone, online and email.</p>