

Date: October 8, 2014

Name of Product: BladeCenter S

VPAT Summary

Criteria	Status	Remarks and Explanations
Section 1194.21 Software Applications and Operating Systems	Not applicable	Not applicable
Section 1194.22 Web-based Internet information & applications	Supports	Refer to Section 1194.22 in VPAT Details section below.
Section 1194.23 Telecommunications Products	Supports	Refer to Section 1194.23 in VPAT Details section below.
Section 1194.24 Video and Multi-media Products	Not applicable	Not applicable
Section 1194.25 Self-Contained, Closed Products	Supports	Refer to Section 1194.25 in VPAT Details section below.
Section 1194.26 Desktop and Portable Computers	Supports	Refer to Section 1194.26 in VPAT Details section below.
Section 1194.31 Functional Performance Criteria	Not applicable	Not applicable
Section 1194.41 Information, Documentation, and Support	Supports	Refer to Section 1194.41 in VPAT Details section below.

VPAT Details

Section 1194.22 Web-based Internet information and applications - Detail

Criteria	Supporting Features	Remarks and Explanations
(a) A text equivalent for every non-text element shall be provided (e.g., via "alt", "longdesc", or in element content).	Supports: The application design provides text equivalents for all images so that assistive technology can describe those images to blind users.	The following component meets this criterion: - BladeCenter S: Information Center - The documentation contains images. Alternate text is provided for each image and tested using both Window-Eyes and WebKing. - IBM Eclipse Help System (IEHS) 3.2e
(b) Equivalent alternatives for any multimedia presentation shall be synchronized with the presentation.	Supports: Synchronized captions, transcripts, text and/or audio descriptions of multimedia presentations are provided to ensure meaningful interpretation by disabled users.	The following component meets this criterion: - BladeCenter S: Information Center - The documentation contains four e-Learning modules. The e-Learning modules provide alternatives to multimedia in two forms: 1) closed caption feature with script; 2) a link to a topic with the script. - IBM Eclipse Help System
(c) Web pages shall be designed so that all information conveyed with color is also available without color, for example from context or markup.	Supports: Color is used only as an enhancement, and an alternate means to convey information or indicate an action is available to users with visual impairments.	The following component meets this criterion: - BladeCenter S: Information Center - There are several pieces of artwork that use color to aid in understanding. However, this artwork also uses numbers and thatching to convey the same meaning when viewed as B/W images. This was tested using Gray Scale. - IBM Eclipse Help System
(d) Documents shall be organized so they are readable without requiring an associated style sheet.	Supports: Web page content is readable without	The following component meets this criterion:

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	the use of a pre-defined style sheet, allowing low vision users to enable their own style sheets that enhance their viewing preferences.	<p>- BladeCenter S: Information Center - Cascading style sheets are used primarily for visual appeal. The Web pages are readable without requiring style sheets; this was testing using Kill Stylesheets.</p> <p>- IBM Eclipse Help System</p>
(e) Redundant text links shall be provided for each active region of a server-side image map.	Supports: Text links are utilized for any server-side maps to provide URL information when the map is activated so users can tell where they are being redirected to.	<p>The following component meets this criterion:</p> <p>- IBM Eclipse Help System</p> <p>The following component does not apply to this criterion:</p> <p>- BladeCenter S: Information Center - The documentation does not contain image maps.</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.	Supports: Alternative text is utilized for any client-side image maps to provide URL information when the map is activated so users can tell where they are being redirected to.	<p>The following component meets this criterion:</p> <p>- IBM Eclipse Help System</p> <p>The following component does not apply to this criterion:</p> <p>- BladeCenter S: Information Center - The documentation does not contain image maps.</p>
(g) Row and column headers shall be identified for data tables.	Supports: The application is designed to identify row and column headers for blind users so the location and context of the table cell are clear and can be communicated by a screen reader.	<p>The following component meets this criterion:</p> <p>- BladeCenter S: Information Center - The documentation identifies table heading rows and columns. The header attribute information is created automatically by IDWB. Tables were tested using Window-Eyes and WebKing.</p> <p>- IBM Eclipse Help System</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.	Supports: Complex tables are designed with additional attributes for blind users so the location and context of the table cell are clear and can be communicated by a screen reader.	<p>The following component meets this criterion:</p> <p>- BladeCenter S: Information Center - The documentation identifies table heading rows and columns. The header attribute information is created automatically by IDWB. Tables were tested using Window-Eyes and WebKing.</p> <p>- IBM Eclipse Help System</p>
(i) Frames shall be titled with text that facilitates frame identification and navigation.	Supports: Meaningful text titles are used to describe the purpose of frames so blind users can easily navigate to the desired area.	<p>The following component meets this criterion:</p> <p>- IBM Eclipse Help System</p> <p>The following component does not apply to this criterion:</p> <p>- BladeCenter S: Information Center - The documentation is a plug-in in the IBM Systems Information Center (IEHS, Version 3.2e) that contains only content pages and a navigation page. The content pages do not contain frame elements.</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.	Supports: The use of blinking text, objects or elements has been avoided, reducing risk of seizures for users with photosensitive epilepsy.	<p>The following component meets this criterion:</p> <p>- IBM Eclipse Help System</p> <p>- BladeCenter S: Information Center - The documentation does not contain blinking, moving, or flickering content.</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.	Supports: When necessary, the application has been designed with text-only pages to communicate equivalent information to disabled users.	<p>The following component meets this criterion:</p> <p>- IBM Eclipse Help System</p> <p>The following component does not apply to this criterion:</p> <p>- BladeCenter S: Information Center - The</p>

Criteria	Supporting Features	Remarks and Explanations
		documentation does not require text-only pages to meet accessibility requirements.
(l) 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.	Supports: Alternatives to scripting language are provided, allowing users access to the content via keyboard and assistive technology.	The following component meets this criterion: - IBM Eclipse Help System The following component does not apply to this criterion: - BladeCenter S: Information Center - The documentation does not contain scripts.
(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: An alternative to inaccessible applets or plug-ins is provided for efficient use by disabled users.	The following component meets this criterion: - BladeCenter S: Information Center - The documentation contains four e-Learning modules. The e-Learning modules provide alternatives to multimedia in two forms: 1) closed caption feature with script; 2) a link to a topic with the script. - IBM Eclipse Help System
(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: The application design allows assistive technology access to information, field elements, and functionality required to complete and submit forms.	The following component meets this criterion: - IBM Eclipse Help System The following component does not apply to this criterion: - BladeCenter S: Information Center - The documentation does not contain forms.
(o) A method shall be provided that permits users to skip repetitive navigation links.	Not applicable	The following component does not apply to this criterion: - BladeCenter S: Information Center - The documentation is a plug-in in the IBM Systems Information Center (IEHS, Version 3.2e) that contains only content pages and a navigation page. The content pages do not have navigation bars or links at the top or left side. Related topics link appear only at the bottom of the content pages. - IBM Eclipse Help System - HTML of content frame is not provided by application
(p) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.	Not applicable	The following component does not apply to this criterion: - BladeCenter S: Information Center - The documentation does not require timed responses. - IBM Eclipse Help System

Section 1194.23 Telecommunications Products - Detail

Criteria	Supporting Features	Remarks and Explanations
(a) Telecommunications products or systems which provide a function allowing voice communication and which do not themselves provide a TTY functionality shall provide a standard non-acoustic connection point for TTYs. Microphones shall be capable of being turned on and off to allow the user to intermix speech with TTY use.	Not applicable	
(b) Telecommunications products which include voice communication functionality shall support all commonly used cross-manufacturer non proprietary standard TTY signal protocols.	Not applicable	
(c) Voice mail, auto-attendant, and interactive voice response telecommunications systems shall be usable by TTY users with their TTYs.	Not applicable	
(d) Voice mail, messaging, auto-attendant, and interactive voice response telecommunication	Not applicable	

Criteria	Supporting Features	Remarks and Explanations
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.		
(e) Where provided, caller identification and similar telecommunications functions shall also be available for users of TTYs and for users who cannot see displays.	Not applicable	
(f) 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.	Not applicable	
(g) 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.	Not applicable	
(h) 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.	Not applicable	
(i) Interface 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.	Not applicable	
(j) 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 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.	Not applicable	
(k)(1) Products which have mechanically operated controls or keys shall comply with the following: Controls and Keys shall be tactilely discernible without activating the controls or keys.	Supports: Touch can be used to identify and distinguish controls and keys without activating them.	The following component meets this criterion: - BladeCenter S - BladeCenter: No day-to-day use controls. The day-to-day use latches: (DVD-CD eject button, hard drives, fans, power supplies, I/O modules, and management module) are reachable and operable with one hand and minimal dexterity. Some service tasks like removing/installing blades, media tray, and storage modules require two hands. Resetting the management module to factory defaults requires some manual dexterity because push button is behind pin hole to prevent inadvertent activation. Individual Blades: The day-to-day use controls: power button, KVM selection, and Media Tray selection are reachable and operable with one hand and minimal dexterity. Activating the NMI reset button requires some manual dexterity because push button is behind pin hole to prevent inadvertent activation.
(k)(2) Products which have mechanically operated controls or keys shall comply with the following: Controls and Keys shall be operable with one hand and shall not require tight grasping, pinching, twisting of the wrist. The force required to activate controls and keys shall be 5 lbs. (22.2N) maximum	Supports: Controls and latches can be reached and operated using one hand and require minimal dexterity for ease of use by mobility impaired users.	The following component meets this criterion: - BladeCenter S - BladeCenter: No day-to-day use controls. The day-to-day use latches: (DVD-CD eject button, hard drives, fans, power supplies, I/O modules, and management module) are reachable and operable with one hand and minimal dexterity. Some service tasks like removing/installing blades, media tray, and storage modules require two hands. Resetting the management module to factory defaults requires some manual dexterity because push button is behind pin hole to prevent inadvertent activation.

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		<p>Individual Blades: The day-to-day use controls: power button, KVM selection, and Media Tray selection are reachable and operable with one hand and minimal dexterity. Activating the NMI reset button requires some manual dexterity because push button is behind pin hole to prevent inadvertent activation.</p>
(k)(3) Products which have mechanically operated controls or keys shall comply with the following: 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.	<p>Supports: An option to change keyboard repeat rate is provided so users can adjust the rate to accommodate their needs.</p>	<p>The following component meets this criterion: - BladeCenter S - BladeCenter: No day-to-day use controls. The day-to-day use latches: (DVD-CD eject button, hard drives, fans, power supplies, I/O modules, and management module) are reachable and operable with one hand and minimal dexterity. Some service tasks like removing/installing blades, media tray, and storage modules require two hands. Resetting the management module to factory defaults requires some manual dexterity because push button is behind pin hole to prevent inadvertent activation.</p> <p>Individual Blades: The day-to-day use controls: power button, KVM selection, and Media Tray selection are reachable and operable with one hand and minimal dexterity. Activating the NMI reset button requires some manual dexterity because push button is behind pin hole to prevent inadvertent activation.</p>
(k)(4) Products which have mechanically operated controls or keys shall comply with the following: The status of all locking or toggle controls or keys shall be visually discernible, and discernible either through touch or sound.	<p>Supports: The status of locking and toggle controls or keys can be seen as well as distinguished by touch and/or sound when activated.</p>	<p>The following component meets this criterion: - BladeCenter S - BladeCenter: No day-to-day use controls. The day-to-day use latches: (DVD-CD eject button, hard drives, fans, power supplies, I/O modules, and management module) are reachable and operable with one hand and minimal dexterity. Some service tasks like removing/installing blades, media tray, and storage modules require two hands. Resetting the management module to factory defaults requires some manual dexterity because push button is behind pin hole to prevent inadvertent activation.</p> <p>Individual Blades: The day-to-day use controls: power button, KVM selection, and Media Tray selection are reachable and operable with one hand and minimal dexterity. Activating the NMI reset button requires some manual dexterity because push button is behind pin hole to prevent inadvertent activation.</p>

Section 1194.25 Self-Contained, Closed Products - Detail

Criteria	Supporting Features	Remarks and Explanations
(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	
(b) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.	Not applicable	
(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	
(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	

Criteria	Supporting Features	Remarks and Explanations
(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	The following component meets this criterion: - BladeCenter S - The volume control is meant for use after the OS is up or for systems where there is auditory information other than system beeps prior to loading the OS. The system beeps from BIOS do not require volume control.
(f) 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.	Not applicable	
(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.	Supports: Color is used only as an enhancement, and an alternate means to convey information or indicate an action is available to users with visual impairments.	The following component meets this criterion: - BladeCenter S - Product uses color as an enhancement not as the only way to convey information or distinguish keys, controls and labels. Color coded touch point labeling Terracotta for hot swap and IBM Blue for touch points are shades that are distinguishable for color blind individuals.
(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.	Not applicable	
(i) Products shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.	Not applicable	
(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 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. (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. (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	

Section 1194.26 Desktop and Portable Computers - Detail

Criteria	Supporting Features	Remarks and Explanations
(a) All mechanically operated controls and keys shall comply with §1194.23 (k) (1) through (4).	Supports: See 1194.23(k) 1 through 4.	The following component meets this criterion: - BladeCenter S - Controls and latches (power, reset, KVM selection, DVD-CD eject, hot-swap hard

Criteria	Supporting Features	Remarks and Explanations
		drives, hot-plug power supplies, I/O modules, management modules) are all reachable and operable with one hand and minimal dexterity. Some service tasks like removing/installing blades requires two hands.
(b) If a product utilizes touchscreens or touch-operated controls, an input method shall be provided that complies with §1194.23 (k) (1) through (4).	Supports: See 1194.23(k) 1 through 4.	The following component meets this criterion: - BladeCenter S - Product does not utilize touch-screen but the touch-operated controls pass checklist requirements.
(c) 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	The following component does not apply to this criterion: - BladeCenter S - Product does not utilize biometric forms of user identification.
(d) Where provided, at least one of each type of expansion slots, ports and connectors shall comply with publicly available industry standards.	Supports: The product design uses industry standard ports so that alternative equipment and assistive technologies can be accommodated.	The following component meets this criterion: - BladeCenter S - BladeCenter provides at least four industry standard USB ports (two integrated into Media Tray and two integrated into Adv Management Module).

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Criteria	Supporting Features	Remarks and Explanations
(a) Product support documentation provided to end-users shall be made available in alternate formats upon request, at no additional charge.	Supports: Product support documentation is provided in at least one accessible format.	The following component meets this criterion: - BladeCenter S: Information Center - Product uses the IBM Eclipse Help System, Version 3.2e, to deliver online (XHTML) documentation as an information center on the Web. The IEHS framework has been tested for accessibility, and XHTML is an accessible format. PDF documents are also provided. The PDFs will contain the same content as the XHTML, but will not be accessible. - IBM Eclipse Help System
(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.	Supports: Documentation includes a description of accessibility and compatibility features that make it easier for people with disabilities to use the product. Those descriptions are available in alternate formats upon request.	The following component meets this criterion: - BladeCenter S: Information Center - The BladeCenter S content is a plug-in within the IBM Systems Information Center, which provides information on Accessibility and keyboard shortcuts in the information center. - IBM Eclipse Help System
(c) Support services for products shall accommodate the communication needs of end-users with disabilities.	Supports: In addition to standard IBM help desk and support Web sites, IBM has established a TTY telephone service for use by deaf or hard of hearing customers to access sales and support services.	

Other IBM products packaged with BladeCenter S

Product / Component name (web link to VPAT)	Status	Function provided by product
Advanced Management Module 3.6	Partially accessible	Provides systems management to BladeCenter, Blades, and all other components in BladeCenter.
IBM Director 5.20.2	Accessible	Enterprise level system management software.

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