Voluntary Product Accessibility Template

Blackboard Connect 5

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Introduction

Blackboard® is fully committed to ensuring that our platform contains no barriers for users with disabilities and is both usable and accessible by everyone, regardless of age, ability, or situation. With valuable input from our clients and a strong set of development and testing tools, we invest in accessible products and capabilities that meet the wide range of our client's needs. To fulfill this promise we are continually partnering with industry experts to audit our code and user interface design techniques to ensure the accessibility of the products.

Blackboard measures and evaluates accessibility using two sets of standards: the WCAG 2.0 standards issued by the World Wide Web Consortium (W3C) and Section 508 of the Rehabilitation Act issued in the United States federal government.

As we work with all of our clients, if a critical compliance issue is discovered in any of our releases, our Support and Product Development teams endeavor to address the issue in a timely manner to maintain system accessibility.

Key Improvements

The web interface for Connect 5 has been upgraded with new workflows that reduce the number of clicks to send messages. Previously, the workflows in Connect 4 would require users to access information linearly across multiple steps and pages. This linear design makes it extremely time consuming and difficult to change or jump ahead to certain parts of the application. In Connect 5, information can be quickly found in a single page and a secondary modal if additional information is required.

We have expanded the text-to-speech capabilities to support additional spoken voice messages for users. Connect 4 only supported text-to-speech voice messages in English and Spanish. Today, Connect 5 supports up to seven TTS languages.
The entire application has undergone a complete UI review to standardize user experience across all parts of the web application. This provides users with a familiar layout to reduce training times.

Improvements have been made to the structure of forms to ensure users are always aware of what they are filling out and what is required within the form.
A new global navigation menu has been developed providing quick links to message templates and for sending new messages. This menu that is located at the beginning of every page can be accessed at any time throughout the application.

Summary Table

Date: Feb 17, 2013
Name of Product: Blackboard Connect
Contact for more Information: Bing Chen, VP Product Management

Summary Table		
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Section 1194.31 Functional Performance Criteria	Supports	See below
Section 1194.41 Information, documentation, and support.	Supports	See below

Section 1194.21 Software Applications and Operating Systems

Criteria	Supporting Features	Remarks and explanations
(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.	Supports	Features of Blackboard Connect are designed to be fully functional with the use of a keyboard.
(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.	Supports	The product does not disrupt or disable any activated features of other products including the operating system.
(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.	Supports	The product is designed to provide focus for the interactive elements in a way that Assistive Technology can track it.
(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	Supports	The product is designed to use labels to identify interactive elements and uses either a readable and visible label or alternative text to describe any iconic

be available in text.		representations of information.
(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.	Supports	Images are used consistently throughout the application, such as for form submission or to indicate availability or status of content; additionally these images are not the only means of communicating this information as alternative text is provided.
(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.	Supports	All information is provided through text in the web-browser and is not dependent upon the operating system.
(g) Applications shall not override user selected contrast and color selections and other individual display attributes.	Supports	The product does not override user settings.
(h) When animation is displayed, the information shall be displayable in at least one non-animated presentation mode at the option of the user.	Supports	The product uses an animated loading image that can be stopped and started by stopping and starting the loading of the page by the browser. If a user provides animation as content in the product, they are provided with a means to provide a non-animated presentation as well.
(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.	Supports	The product does not use color coding as the only means to convey information, indicate an action, prompt a response or distinguish a visual element in a

		meaningful way. When colors are used, there are corresponding text equivalents to covey information.
(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.	Not applicable	There is no user selection of color settings available.
(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.	Supports	The product does not utilize flashing or blinking text, objects or other elements.
(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.	Supports	Electronic forms are designed to include properly labeled instructions and elements including the submission of the form.

Section 1194.22 Web-based Internet information and applications

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 product is designed to provide all non-text elements that are not purely graphical in nature alternative descriptions via the alt text attribute.
(b) Equivalent alternatives for any multimedia presentation shall be synchronized with the presentation.	Not applicable	The product does not provide any multimedia presentations.
(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	All occurrences of color are not used as the only method for conveying information. Text alternatives are also provided to assist the user with the information.
(d) Documents shall be organized so they are readable without requiring an associated style sheet.	Supports	The reporting documents in the Blackboard Connect product are organized so they can be read without style sheets.
(e) Redundant text links shall be provided for each active region of a server-side image map.	Not applicable	We do not utilize server-side image maps for navigational purposes.
(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.	Not applicable	We do not utilize client-side image maps for navigational purposes.
(g) Row and column headers shall be identified for data tables.	Supports	Data tables in the product take advantage

		of headers for rows and columns to identify relevant information.
(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	Data is displayed using captions tooltips and summary properties of the rendered HTML elements.
(i) Frames shall be titled with text that facilitates frame identification and navigation	Not applicable	We do not utilize frames within our application.
(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 product is not designed in a way that would cause flickering.
(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.	Not applicable	We do not provide text-only content pages.
(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 when combined with Compatible Assistive Technology	Scripting language is used to display and hide interface elements, however, the content of the interface elements are a part of the body of the html and are therefore understood by screen readers.
(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 Û1194.21(a) through (l).	Not applicable	We do not utilize applets or plug-ins within our application.
(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	Supports	The product includes electronic forms designed to properly label instructions and elements including the

required for completion and submission of the form, including all directions and cues.		submission of the form.
(o) A method shall be provided that permits users to skip repetitive navigation links.	Supports	"Skip navigation" links are provided when necessary but the product has been designed with significant header descriptions so the user easily can jump to their desired location.
(p) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.	Supports	Timed response is required for security reasons to automatically log the user out of his/her account. When the system is about to time out due to inactivity, we display a text alert to inform the user to request more time to accommodate the activity.

Section 1194.23 Telecommunications Products

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.	NA	
(b) Telecommunications products which include voice communication functionality shall support all commonly used cross-manufacturer non-proprietary standard TTY signal protocols.	NA	
(c) Voice mail, auto-attendant, and interactive voice response telecommunications systems shall be usable by TTY users with their TTYs.	NA	
(d) 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.	NA	
(e) Where provided, caller identification and similar telecommunications functions shall also be available for users of TTYs, and for users who cannot see displays.	NA	
(f) For transmitted voice signals,	NA	

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.		
(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.	NA	
(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.	NA	
(i) 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.	NA	
(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 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.	NA	
(k)(1) Products which have mechanically operated controls or keys shall comply with the following: Controls and Keys shall be tactilely discernible	NA	

without activating the controls or keys.		
(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.	NA	
(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.	NA	
(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.	NA	

Section 1194.24 Video and Multi-media Products

Criteria	Supporting Features	Remarks and explanations
(a) All analog television displays 13 inches and larger, and computer equipment that includes analog television receiver or display circuitry, shall be equipped with caption decoder circuitry which appropriately receives, decodes, and displays closed captions from broadcast, cable, videotape, and DVD signals. As soon as practicable, but not later than July 1, 2002, widescreen digital television (DTV) displays measuring at least 7.8 inches vertically, DTV sets with conventional displays measuring at least 13 inches vertically, and stand-alone DTV tuners, whether or not they are marketed with display screens, and computer equipment that includes DTV receiver or display circuitry, shall be equipped with caption decoder circuitry which appropriately receives, decodes, and displays closed captions from broadcast, cable, videotape, and DVD signals.	NA	
(b) Television tuners, including tuner cards for use in computers, shall be equipped with secondary audio program playback circuitry.	NA	
(c) All training and informational video and multimedia productions which support the agency's mission, regardless of format, that contain speech or other audio information necessary for the comprehension of the content, shall be open or closed captioned.	NA	
(d) All training and informational video and multimedia productions which support the agency's mission, regardless of format, that contain visual information necessary for the comprehension of the content, shall be audio described.	NA	
(e) Display or presentation of alternate text presentation or audio descriptions shall be user-selectable unless permanent.	NA	

Section 1194.25 Self-Contained, Closed Products

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.	NA	
(b) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.	NA	
(c) Where a product utilizes touchscreens or contact-sensitive controls, an input method shall be provided that complies with Û1194.23 (k) (1) through (4).	NA	
(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.	NA	
(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.	NA	
(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.	NA	
(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.	NA	
(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.	NA	
(i) Products shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.	NA	

(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.	NA	
(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.	NA	
(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.	NA	
(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.	NA	

Section 1194.26 Desktop and Portable Computers

Criteria	Supporting Features	Remarks and explanations
(a) All mechanically operated controls and keys shall comply with Û1194.23 (k) (1) through (4).	NA	
(b) If a product utilizes touchscreens or touch-operated controls, an input method shall be provided that complies with Û1194.23 (k) (1) through (4).	NA	
(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.	NA	
(d) Where provided, at least one of each type of expansion slots, ports and connectors shall comply with publicly available industry standards	NA	

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.	Supports with Compatible Assistive Technology	The product is designed to be functional for blind and visually impaired users with the addition of assistive technology.
(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.	Supports with Compatible Assistive Technology	The product is designed to be functional for blind and visually impaired users with the addition of assistive technology.
(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.	Supports	The default mode of the product does not require the user to have hearing.
(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.	Supports	Blackboard Connect supports delivering messages in audio formats as text alternatives to TTY/TDD and SMS devices.
(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.	Supports	Blackboard Connects uses text-to-speech to convert text messages into speech audio files.
(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.	Supports	The default mode of the product does not require the user to have fine motor control. The user can use a keyboard and/or mouse of their choosing to operate the product.

Section 1194.41 Information, documentation, and support

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	The product documentation is available in HTML, Word and PDF formats at no additional charge. Institutions are free to request any additional format of that documentation as desired.
(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	The product documentation is available in HTML, Word and PDF formats at no additional charge. Institutions are free to provide any additional format of that documentation as desired.
(c) Support services for products shall accommodate the communication needs of end-users with disabilities.	Supports	Support services are provided online, via email and by telephone.