Blackboard collaborate™

Blackboard Collaborate
Web Conferencing

Voluntary Product Accessibility
Template (VPAT)

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Background

 Blackboard Collaborate delivers web, audio, video and social networking solutions optimized for teaching, learning, and collaboration. We unify enterprise technologies like video and web conferencing, phone, instant messaging, learning management systems, and even social networks in an approach called Unified Learning and Collaboration.   Blackboard Collaborate delivers exceptional results across the enterprise, including engaged participants, enhanced learning experiences, increased retention and completion rates, and higher ROI.

Headquartered in Washington D.C., Blackboard Collaborate is a company you can count on, with over 1600 customers worldwide. The company has served more than one billion web-collaboration minutes annually to over 7 million users located in 180 countries.

Most web-conferencing products are built with the corporate mass market in mind. This typically means:
- Windows users
- Using Broadband Internet
- Available phone lines for talking in addition to the web-conference
- Non-disabled participants

 Blackboard Collaborate has decided on a markedly different course. With its No User Left Behind philosophy, Blackboard Collaborate has decided on the following:

- **Completely cross platform** – Blackboard Collaborate participants can be on a Windows PC, a Mac, or a Linux workstation and fully participate in their online sessions.

- **Optimized for low bandwidth** – Blackboard Collaborate sessions often include participants from remote, rural areas or third world countries where Internet infrastructure is not optimal. Often times, these locations may have a single dialup phone line. Blackboard Collaborate has optimized its sessions such that all the high priority content such as Audio, Text Messaging and Whiteboard interactions can be comfortably sustained in a 28.8 kbps dialup connection.

- **Unprecedented Moderator Awareness** – Moderators in Blackboard Collaborate know at all times what the participants are seeing and hearing allowing an optimal learning and collaboration environment for all users.

- **Accommodation for Disabilities** – Blackboard Collaborate has created numerous product features to ensure that participants with vision or hearing impairment can participate as fully as possible in the sessions. The rest of this whitepaper will discuss the details of these features.

Accessibility Guidelines

There are two main resources that are currently available to software organizations to ensure that their products are usable by individuals with disabilities.

1) **W3C**: The World Wide Web Consortium (W3C) has a working group called the Web Accessibility Initiative (WAI). The WAI has produced a set of guidelines called User Agent Accessibility Guidelines "for designing user agents that lower barriers to Web accessibility for people with disabilities (visual, hearing, physical, cognitive, and neurological)". These guidelines can be reviewed at http://www.w3.org/TR/UAAG20/.

2) **US Federal Government's Section 508c**: In 1998, Congress amended the Rehabilitation Act to require Federal agencies to make their electronic and information technology accessible to people with disabilities. Inaccessible technology interferes with an individual's ability to obtain and use information quickly and easily. Section 508 was enacted to eliminate barriers in information technology, to make available new opportunities for people with disabilities, and to encourage development of technologies that will help achieve these goals. The law applies to all Federal agencies when they develop, procure, maintain, or use electronic and information technology. Under Section 508 (29 U.S.C. ' 794d), agencies must give disabled employees and members of the public access to information that is comparable to the access available to others. More information for Section 508c is available at http://www.usdoj.gov/crt/508/508home.html

W3C Conformance

The W3C defines several checkpoints that a product must pass in order to be accessible. WCAG 2.0 (Web Content Accessibility Guidelines) has 12 guidelines organized under 4 principles: perceivable, operable, understandable, and robust. Success criteria for each guideline is tested at three levels of conformance: A, AA, and AAA. There are 5 requirements that must be met in order for content to be classified as "conforming" to WCAG 2.0. More information on the requirements to meet conformance levels can be found here at http://www.w3.org/TR/UNDERSTANDING-WCAG20/conformance.html.

Levels of Conformance – details on the specific levels can be found here: http://www.w3.org/TR/WCAG20/#guidelines

Level A:
For Level A conformance (the minimum level of conformance), the web page satisfies all the Level A Success Criteria, or a conforming alternate version is provided.
Level AA:
For Level AA conformance, the web page satisfies all the level A and level AA success criteria, or a level AA conforming alternate version is provided.
Level AAA:
For Level AAA conformance, the web page satisfies all the level A, Level AA and Level AAA success criteria, or a level AAA conforming alternate version is provided.

The requirements and levels of conformance above have been looked at extensively while producing the Blackboard Collaborate software and we believe that Blackboard Collaborate has met all Level A conformance levels. Extensive work has also gone into achieving AA and AAA conformance levels by the addition of several features. These include the following:

1) **Support for Screen Readers**: The Java Accessibility Bridge allows access to screen reader products, such as JAWS, to provide verbal cues in the Blackboard Collaborate environment including menus, participant, chat, and audio windows. Through the Activity

Window, presentation content (including text from PowerPoint and OpenOffice slides) is accessible to screen readers. Additionally, information regarding participant activity information (such as raising hands, using emoticons, etc.) is also available to screen readers in the Activity Window.

2) **Keyboard access to menus and dialogs**: For participants with visual or mobility disabilities who might have difficulty using the mouse pointer, menus, interactions and dialogs can be activated using the keyboard either using pre-defined shortcut keys, accelerator keys or using the Tab and F6 key for traversal. (Level AA and AAA). Additionally, key actions (e.g. raise hand, turn on mic, send chat message) can be accomplished through a Command Line Interface within the Activity Window. A list of all keyboard shortcuts is provided in the help menu within the Blackboard Collaborate interface.

3) **Support for Closed Captioning**: Blackboard Collaborate has written a special utility which allows all audio content to be closed captioned for hearing impaired participants. The Blackboard Collaborate Closed Captioning utility allows for the captioning to be provided by multiple providers which allows for Level AA and AAA features such as captioning the same session in multiple languages allowing participants to subscribe to their preferred captioning provider. Blackboard Collaborate supports closed captioning machine stenograph software product systems including Stenograph's CaseCatalyst©, Advantage Software's Eclipse©, and ProCAT's WinnerVR, as well as voice recognition software such as Nuance-Dragon Naturally Speaking.

4) **Ability for a participant to scale visual content**: Blackboard Collaborate allows participants to scale almost all visual content up or down to meet the needs of that individual. This includes:
   a. Ability to increase/decrease the font size for Text Messaging and Closed Captioning
   b. Ability to scale content on the Whiteboard to the extent that a participant's display allows
   c. Ability to scale content in the Application Sharing facility to the extent that a participant's display allows.
   d. Ability to increase the size of the live video window.

5) **Ability for users to turn on auditory and visual notification for certain events**: These include the ability to announce a user joining/leaving the session with an audible tone in addition to their name appearing in the Participant Information window, receipt of chat messages, notification of hand raise/lower and microphone on/off, etc.

6) **Ensuring User Control of user interface behavior**: Blackboard Collaborate is one of the very few real-time collaboration tools which allow participants to control their own user interface rather than the interface being dictated by the presenter/moderator. Each participant can layout their different Blackboard Collaborate utilities (audio, video, chat, etc.) to fit exactly their needs. These settings are retained across sessions, such that whenever a user attends another session after customizing their display, their user interface will look exactly as they had customized.

7) **Capture and replaying of sessions in their entirety**: Blackboard Collaborate allows for live sessions to be recorded including every interaction that happened in the live session including:
   a. All Audio
   b. All Video
   c. All Whiteboard Interactions

d. All Public Text Messages
e. All Application Sharing
f. All Multimedia files
g. All Web Tours
h. All Closed Captioning streams

These recordings can be played back using the same interface that is used to join the live sessions and all of the above functionality explained in this document is also available during the recording playback. All user control of user interface as well as the ability to rewind and replay any content allows participants to review and replay content till they are fully comfortable with it.

Recordings can also be converted to movie files using the MP4 service or Publish and post-captioned with 3rd party tools.

8) **Availability of APIs**: Blackboard Collaborate provides an Open API for integration into Learning Management Systems and web applications that already meet your accessibility standards. This allows users and other developers to interface external systems that they are already using to interoperate with Blackboard Collaborate including the ability to:
   a. Create Blackboard Collaborate sessions
   b. Inform registered users of time/URL to join Blackboard Collaborate sessions
   c. Authenticate users
   d. Initiate Blackboard Collaborate sessions
   e. Access recordings of Blackboard Collaborate sessions

Section 508c Compliance

Section 508c allows software product vendors to fill out a Voluntary Product Accessibility Template to inform all constituents of the extent of their product's compliance and conformance to the 508c standards.

Voluntary Product Accessibility Template

The purpose of the Voluntary Product Accessibility Template is to assist Federal contracting officials in making preliminary assessments regarding the availability of commercial Electronic and Information Technology products and services with features that support accessibility. It is assumed that officials will provide additional contact information to facilitate more detailed inquiries.

The first table of the Template provides a summary view of the Section 508 Standards. The subsequent tables provide more detailed views of each subsection. There are three columns in each table:
- Column One of the Summary Table describes the subsections of subparts B and C of the Standards.
- Column Two describes the supporting features of the product or refers you to the corresponding detailed table, "e.g., equivalent facilitation."
- Column Three contains any additional remarks and explanations regarding the product.

In the subsequent tables, the first column contains the lettered paragraphs of the subsections. The second column describes the supporting features of the product with regard to that paragraph. The third column contains any additional remarks and explanations regarding the product.

Compliance and Remediation Statement for Section 508 of the Rehabilitation Act

This statement describes the compliance of Version 12.5 of Blackboard Collaborate, a software product from Blackboard, with the United States Rehabilitation Act Section 508.

Name of Product: Blackboard Collaborate V12.5+
Contact for more Information: http://www.blackboardcollaborate.com

Summary Table

Criteria	Supporting Features	Remarks and explanations
Section 1194.21 Software Applications and Operating Systems	Applies to Blackboard Collaborate application	Please see more details on page 9
Section 1194.22 Web-based Internet Information and Applications	Not Applicable	Blackboard Collaborate website is not addressed in this document
Section 1194.23 Telecommunications Products	Not Applicable	Blackboard Collaborate is not considered a telecommunications product.
Section 1194.24 Video and Multi-media Products	Not Applicable	Blackboard Collaborate does not use video or multimedia.
Section 1194.25 Self-Contained, Closed Products	Not Applicable	Blackboard Collaborate is not a self-contained product.
Section 1194.26 Desktop and Portable Computers	Not Applicable	Blackboard Collaborate is not considered a telecommunications product.
Section 1194.31 Functional Performance Criteria	Applicable	Please see more details on page 11
Section 1194.41 Information, Documentation and Support	Applicable	Please see more details on page 12

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	Menu functions are accessible using keyboard shortcuts.
(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	Does not interfere with Mouse, Keyboard and Magnification accessibility features.
(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 With Exceptions	A well defined on-screen indication of current focus is available in Blackboard Collaborate. However, there is no programmatic exposure of 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.	Supports	All information available through icons and graphical user interface elements in Blackboard Collaborate is also available as text through a tool tip. Assistive Technology such as a Screen Reader may make this information available through speech synthesization.
(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	Bitmap images, such as icons and tool buttons, are used in a consistent manner throughout Blackboard Collaborate.
(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	Standard operating system functions are used to output text by Blackboard Collaborate. Output is available as plain ASCII text and may easily be accepted by Assistive Technology, such as a Screen Reader. Text input

		location at the text input caret is set and available using standard operating system functions.
(g) Applications shall not override user selected contrast and color selections and other individual display attributes.	Supports with Exceptions	Blackboard Collaborate allows users to use the look and feel settings of the operating system on which it runs and does not interfere with non-magnification display accessibility features such as High Contrast. Currently, high contrast support is on Macs or through the color inversion option of the built in Windows magnifier.
(h) When animation is displayed, the information shall be displayable in at least one non-animated presentation mode at the option of the user.	Not Applicable	Blackboard Collaborate does not use animated presentation modes.
(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	Blackboard Collaborate does not convey information through color alone anywhere in the interface.
(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.	Supports with Exceptions	Blackboard Collaborate allows users to use the look and feel settings of the operating system on which it runs and does not interfere with non-magnification display accessibility features such as High Contrast.
(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	There are no flashing or blinking elements in the application.
(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	Blackboard Collaborate forms have been designed with this in mind

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	Blackboard Collaborate allows user to communicate through Voice over the Internet. Access to voice communication for explanation of on-screen typed and graphical content by a facilitator. Readily available assistive technologies may be used with Blackboard Collaborate. Users of assistive technology should contact their assistive technology vendor to assess the compatibility of specific assistive technology with Web browsers and to learn how to adjust their settings to achieve optimal results.
(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	Blackboard Collaborate supports the use of screen magnifiers to access user interface information. Blackboard Collaborate also supports system large fonts on the direct messaging, closed captioning and whiteboard windows and scaling of the whiteboard area.
(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	Blackboard Collaborate has a fully functional whiteboard which can be used for information dissemination. Readily available assistive technologies may also be used with Blackboard Collaborate. Blackboard Collaborate also provides a closed captioning feature which allows user to provide multiple closed captioning streams to capture all audio content and each attendee may choose which stream to view.
(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	Within Blackboard Collaborate, individual users can control their own computer microphone and speaker volumes to suit their needs.
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 Collaborate does not rely on audio. Users can interact through text messaging and a shared interactive whiteboard. Readily available assistive technologies may also be used with Blackboard Collaborate. Blackboard Collaborate also provides a closed captioning feature which allows user to provide multiple closed captioning streams

		to capture all audio content and each attendee may choose which stream to view.
(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.	Does not support	Blackboard Collaborate does not yet interoperate with Assistive Technology to allow input of commands and retrieval of results via such methods as speech synthesis and speech interpretation.

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	Documentation on Blackboard Collaborate is provided in HTML, PDF, MS Word format for customers. Documentation is available online or can be printed.
(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 on Blackboard Collaborate including any accessibility and compatibility features is provided in HTML, PDF, MS Word format for customers. Documentation is available online or can be printed.
(c) Support services for products shall accommodate the communication needs of end-users with disabilities.	Supports	Support services for all of Blackboard Collaborate's products is available in many formats: Blackboard Collaborate's Support website, direct phone support and direct email support. Individuals who are hearing impaired may request access via a TTY relay service.