Voluntary Product Accessibility Template (VPAT) ® 2.0

Project Name:	Voluntary Product Accessibility Template (VPAT) ® 2.0 Cloudera Data Science Workbench (CDSW)
Last Revision Date:	**August 30, 2018**
Revision:	1.0

Table of contents

cloudera®

Cloudera Data Science Workbench (CDSW) Accessibility Conformance Report

VPAT® 2.0 Version 1.0 – August 30, 2018

Name of product/version:	**Cloudera Data Science Workbench (CDSW)**
Product description:	**Web Application**
Date:	**August 30, 2018**
Contact information	**gconvertino@cloudera.com**
Evaluation methods used:	This VPAT® is based on the results of an accessibility audit of the **Cloudera Data Science Workbench (herein CDSW) web application** conducted by **The Paciello Group – a VFO™ company**, for the purpose of assessing compliance with the Web Content Accessibility Guidelines (WCAG) 2.0. The following applications were used as part of the audit to identify potential accessibility issues: ● Desktop browsers: Internet Explorer, Firefox, Safari and Chrome (all latest versions) ● Assistive technologies: JAWS, NVDA, Dragon and Read & Write ● Accessibility testing tools: Browser inspection tools, the Web Developer Extension, Validators, aViewer, Colour Contrast Analyser
Applicable standards/guidelines	This report covers the degree of conformance for the following accessibility standards/guidelines: ● Web Content Accessibility Guidelines (WCAG) 2.0 Level A/AA. ● Revised Section 508. ● Standard EN 301 549.

Terminology

The terms used in the Conformance Level information are defined as follows:

- **Supports**: The functionality of the product has at least one method that meets the criterion without known defects or meets with equivalent facilitation.

- **Supports with Exceptions**: Some functionality of the product does not meet the criterion.

- **Does Not Support**: The majority of product functionality does not meet the criterion.

- **Not applicable**: The criterion is not relevant to the product.

- **Not evaluated**: The product has not been evaluated against the criterion. This can only be used in WCAG 2.0 Level AAA.

Section 508 Chapter 1: Application and Administration

This VPAT is based on the [Revised 508 Standards](#) which incorporates [WCAG 2.0](#) by reference.

Section 508 Chapter 2: Scoping Requirements

As CDSW is a web application, the following standards specifically apply:

- All Web Content Accessibility Guidelines (WCAG) 2.0 Level A and Level AA, available at http://www.w3.org/TR/WCAG20.
- Section 508 Chapter 3: Functional Performance Criteria (FPC).
- Section 508 Chapter 6: Support Documentation and Services.

Note: When reporting on conformance with the WCAG 2.0 Success Criteria, they are scoped for full pages, complete processes, and accessibility-supported ways of using technology as documented in the [WCAG 2.0 Conformance Requirements](#).

WCAG 2.0 Report

Web Content Accessibility Guidelines (WCAG) 2.0 Success Criteria, Level A

Criteria	Conformance Level	Remarks and Explanations
1.1.1 Non-text Content	Does not support	- There are several instances of images without appropriate text alternatives, including: - The Cloudera logo in the common header - The decorative "C" icon, which is used as part of a menu button in the common header. - Several controls have graphical labels with no accessible alternative, including: - Custom buttons, such as the 'Select a File' button on the 'Create a New Model' page, the 'Remove' control within the left-hand project panel on the workbench session page, and the '+' (Plus) based control within the common header.

		● Icons indicating the sort order within sortable tables, such as the sortable table on the Project Overview page. ● The Dashboard and Admin Settings pages also include a small number of graphs and charts that are missing non-graphical equivalents.
1.2.1 Audio-only and Video-only (Prerecorded)	Not applicable	CDSW does not contain audio-only or video-only content.
1.2.2 Captions (Prerecorded)	Not applicable	● CDSW does not contain synchronized media with prerecorded audio content.
1.2.3 Audio Description or Media Alternative (Prerecorded)	Not applicable	CDSW does not contain any synchronized media which would require an alternative for time-based media or audio description.
1.3.1 Info and Relationships	Supports with exceptions	● Some content lacks appropriate structural markup, including: ● Error messages are not programmatically associated with their related form controls, such as when creating a new model or project. ● Fieldset elements, used to group related form controls together, are missing an appropriate accessible name for the group (for example, on the Create a New Model page) through, for example, the <legend> element. ● Data table headers are not identified programmatically, for example on the table within the Overview tab on the Admin Settings page.

		● Some data tables contain empty headers, such as the table on the Project Overview page. ● The heading structure does not follow a logical hierarchy on some pages, for example on the Create a New Model page. ● Visible page headings are occasionally not programmatically marked up as such, for example the main heading within the workbench session section of the application.
1.3.2 Meaningful Sequence	Supports	
1.3.3 Sensory Characteristics	Supports with exceptions	While the majority of instructions provided for understanding and operating content do not rely solely on sensory characteristics of components, there are minor exceptions. For example: ● The instructions for using the workbench within workbench sessions make specific reference to the position of the editor: "Your editor is on the left and your input prompt is on the bottom".
1.4.1 Use of Color	Supports with exceptions	● While, in the majority of cases, color is not used as the only visual means of conveying information, indicating an action, prompting a response, or distinguishing a visual element, there are some exceptions. For example:

		● Color alone is used to visually distinguish between link and surrounding non-link text on certain pages, such as the 'Project Environment' link text and surrounding non-link text when creating a new model. ● Color alone is used to indicate when the command prompt within workbench sessions is ready/not ready.
1.4.2 Audio Control	Not applicable	CDSW does not contain any audio which plays automatically for more than 3 seconds.
2.1.1 Keyboard	Does not support	● Several functional components within CDSW are not keyboard operable or available to users who cannot use a mouse, including: ● General purpose custom buttons across the application, such as the 'Remove' and 'Refresh' controls on the left-hand project panel within workbench sessions, and the 'Run' control on the Project Overview page. ● Autocomplete suggestions within the 'Project quick find' field in the common header. ● Tooltips, such as those on the Create New Model page.
2.1.2 No Keyboard Trap	Supports with exceptions	● For most components that receives keyboard focus, focus can be moved away from that component using only a keyboard interface, with some minor exceptions:

		● It is possible to navigate into, but not out of, the code editor and command prompt fields within the workbench.
2.2.1 Timing Adjustable	Supports with exceptions	While users are given adequate time to complete tasks across most pages within the application, workbench sessions time out without warning.
2.2.2 Pause, Stop, Hide	Not applicable	● CDSW does not contain any moving, blinking, scrolling or updating content (presented in parallel with other content).
2.3.1 Three Flashes or Below Threshold	Supports	
2.4.1 Bypass Blocks	Does not support	A mechanism to bypass blocks of content that are repeated on multiple pages, such as navigation bars and other repeated content, is not available.
2.4.2 Page Titled	Supports with exceptions	● While the majority of pages have titles that describe their topic or purpose, iframes within the workbench session page are missing appropriate titles.
2.4.3 Focus Order	Does not support	● Focusable components within CDSW do not receive focus in an order that preserves meaning and operability. For example: ● Keyboard focus within dialog boxes, such as the 'Select Script' dialog box on the Create a New Model page, is not restricted to the dialog box alone. ● Keyboard focus order within the Security tab on the Admin Settings page is not logical.

		● Iframe elements on the workbench sessions page that do not include user interface content and are purely used for programmatic reasons unnecessarily fall into keyboard tab focus order.
2.4.4 Link Purpose (In Context)	Supports with exceptions	There are minor exceptions where the purpose of each link cannot be determined from the link text alone or from the link text together with its programmatically determined link context. For example: ● Numeric values (0, 1 etc.) are used as the sole content of some links on the Project Overview page and on the table within the Deployments tab on the Models detail page.
3.1.1 Language of Page	Supports with exceptions	On most pages in the application, the human language of the page is correctly identified. However, there are exceptions. For example: ● The human language of content is not indicated within nested iframes on workbench session pages.
3.2.1 On Focus	Supports	
3.2.2 On Input	Supports	
3.3.1 Error Identification	Supports with exceptions	● While for the majority of input errors that are automatically detected, the items that are in error are identified and the errors are described to the user in text, there are exceptions. For example:

		● Pop-up error messages in pages such as the Create a New Model page only appear for a very short amount of time and do not clearly indicate the nature of the error (e.g. "the create model request description must be at least 1 long", without indicating what "1" refers to).
3.3.2 Labels or Instructions	Does not support	● Many form components that require user input are missing labels or instructions. Examples include: ● Several form components, such as those on the Admin Settings page, that rely on placeholder text which disappears when the user begins to type and offers insufficient contrast against its background. ● Several combo boxes, such as those within the Template tab when creating a new project, are missing separate visible labels. ● The code editor and command prompt fields within workbench sessions are missing separate visible labels.
4.1.1 Parsing	Supports with exceptions	While the majority of markup-based content does not have any parsing issues known to have an accessibility impact, there are minor exceptions. For example: ● Elements are nested in a way that is not permitted by the HTML specification.

4.1.2 Name, Role, Value	Does not support	- The name, role, state, value of interface components, or notifications of change to these items, cannot be programmatically determined and is therefore not available to user agents, including assistive technologies. For example: - Many custom widgets across the application lack accessible name, role and (where relevant) state information, and are therefore not exposed correctly or at all to assistive technologies. These include: - The pagination control within the Activity tab of the Admin Settings page. - Custom buttons used throughout the application, such as the 'Remove' control within the left-hand project panel on the workbench session page. - Disclosure (expandable/collapsible) widgets, such as the Set Environment Variables disclosure widget on the Create New Model page. - Tab navigation widgets, such as the Blank to Git tab navigation tab navigation widget on the Create New Project page. - Autocomplete fields, such as the Project Quick Find field within the common header of the application. - Table sorting functionality, for example the sortable table on the Project Overview page.

		● Tooltips, such as the tooltip associated with the lock icon next to the project heading on the Project Overview page.
		● Across the application, there are instances of input fields that have visible label text with no programmatic relationship to the corresponding input field. For example:
		● The Name and Description fields on the Create New Model page.
		● There are also instances of form fields inside tables which are missing any form of programmatic label. For example:
		● Checkboxes within the table on the Settings tab on the Admin Settings page.
		● Text fields within the Set Environmental Variables table on the Create a New Model page.
		● Some required text fields are only indicated visually (via an asterisk) and not programmatically, so this information may be missed by screen reader users. Examples include required fields within the Security tab on the Admin Settings page.

		• Error messages are also displayed within many forms across the application (such as when creating a new project) but are only displayed visibly and are not programmatically associated with the related field, so can be easily missed by assistive technology users.

Web Content Accessibility Guidelines (WCAG) 2.0 Success Criteria, Level AA

Criteria	Conformance Level	Remarks and Explanations
1.2.4 Captions (Live)	Not applicable	CDSW does not contain synchronized media with live audio content.
1.2.5 Audio Description (Prerecorded)	Not applicable	CDSW does not contain any synchronized media which would require an audio description.
1.4.3 Contrast (Minimum)	Does not support	CDSW includes text with a contrast ratio below 4.5:1, including placeholder text, error text, and instructions text.
1.4.4 Resize text	Supports with exceptions	While the majority of pages in CDSW allow content to be magnified up to 200% without loss of content or functionality, there are minor exceptions. For example: ● Content within the right-hand panel in the workbench session page is completely obscured when magnification is set to 200%.
1.4.5 Images of Text	Supports	
2.4.5 Multiple Ways	Supports	
2.4.6 Headings and Labels	Supports with exceptions	● While the majority of headings and labels appropriately describe the topic or purpose of their related content, there are minor exceptions. For example:

		• There are no headings or labels for the Code Editor and command prompt fields on the workbench session page. • Error messages on the Create a New Model page refer to name and description fields that "must be at least 1 long", which is ambiguous.
2.4.7 Focus Visible	Does not support	Keyboard operable user interface components do not provide a visible keyboard focus indicator. For example: • Visible keyboard focus is entirely suppressed around multiple custom controls, such as the Launch Session and Run Experiment controls on the workbench session page. • Only the default browser outline, which is very week, is used to indicate when native controls receive focus, such as those within the Create a New Project tab panel.
3.1.2 Language of Parts	Not applicable	CDSW does not contain changes in human language.
3.2.3 Consistent Navigation	Supports	
3.2.4 Consistent Identification	Supports	

3.3.3 Error Suggestion	Not applicable	● CDSW does not contain any components expecting user input that have known suggestions for corrections.
3.3.4 Error Prevention (Legal, Financial, Data)	Not applicable	CDSW does not contain pages that cause legal commitments or financial transactions to occur.

Web Content Accessibility Guidelines (WCAG) 2.0 Success Criteria, Level AAA

Criteria	Conformance Level	Remarks and Explanations
1.2.6 Sign Language (Prerecorded)	Not evaluated	
1.2.7 Extended Audio Description (Prerecorded)	Not evaluated	
1.2.8 Media Alternative (Prerecorded)	Not evaluated	
1.2.9 Audio-only (Live)	Not evaluated	
1.4.6 Contrast Enhanced	Not evaluated	
1.4.7 Low or No Background Audio	Not evaluated	
1.4.8 Visual Presentation	Not evaluated	
1.4.9 Images of Text (No Exception) Control	Not evaluated	
2.1.3 Keyboard (No Exception)	Not evaluated	
2.2.3 No Timing	Not evaluated	
2.2.4 Interruptions	Not evaluated	
2.2.5 Re-authenticating	Not evaluated	
2.3.2 Three Flashes	Not evaluated	
2.4.8 Location	Not evaluated	
2.4.9 Link Purpose (Link Only)	Not evaluated	
2.4.10 Section Headings	Not evaluated	
3.1.3 Unusual Words	Not evaluated	
3.1.4 Abbreviations	Not evaluated	
3.1.5 Reading Level	Not evaluated	

3.1.6 Pronunciation	Not evaluated	
3.2.5 Change on Request	Not evaluated	
3.3.5 Help	Not evaluated	
3.3.6 Error Prevention (All)	Not evaluated	

Section 508 Chapter 3: Functional Performance Criteria (FPC)

Criteria	Conformance Level	Remarks and Explanations
302.1 Without Vision	Does not support	Several custom controls lack accessible name, role and/or state information, and are not operable using the keyboard alone. Graphical content lacks text equivalents. Form controls are not marked up to allow assistive technologies to match the control with its associated visible label. There is no skip link mechanism.
302.2 With Limited Vision	Does not support	Content contrasts insufficiently with its background. Visible keyboard focus is completely suppressed around multiple focusable components, particularly custom components. Full page magnification causes some content to become obscured or unreadable.
302.3 Without Perception of Color	Does not support	Content contrasts insufficiently with its background. Color alone is often the only visible indication of an actionable control within blocks of text, and to indicate whether page elements (such as command prompts) are ready for input or not.
302.4 Without Hearing	Supports	
302.5 With Limited Hearing	Supports	
302.6 Without Speech	Supports	
302.7 With Limited Manipulation	Does not support	Many functional custom components cannot be

		operated using the keyboard alone. There is no skip link mechanism. Keyboard focus is often not constrained within custom dialog boxes. Keyboard trapping occurs within a small number of form fields across the application.
302.8 With Limited Reach and Strength	Does not support	Many functional custom components cannot be operated using the keyboard alone. There is no skip link mechanism. Keyboard focus is often not constrained within custom dialog boxes. Keyboard trapping occurs within a small number of form fields across the application.
302.9 With Limited Language, Cognitive, and Learning Abilities	Supports with exceptions	Some error messages fade out after only a short period of time.

Section 508 Chapter 4: Hardware

Notes: CDSW is not a hardware product.

Criteria	Conformance Level	Remarks and Explanations
402 Closed Functionality		
402.1 General		
402.2 Speech-Output Enabled		
402.2.1 Information Displayed On-Screen	Not applicable	
402.2.2 Transactional Outputs	Not applicable	
402.2.3 Speech Delivery Type and Coordination	Not applicable	
402.2.4 User Control	Not applicable	
402.2.5 Braille Instructions	Not applicable	
402.3 Volume		
402.3.1 Private Listening	Not applicable	
402.3.2 Non-private Listening	Not applicable	
402.4 Characters on Display Screens	Not applicable	
402.5 Characters on Variable Message Signs	Not applicable	
403 Biometrics		
403.1 General	Not applicable	
404 Preservation of Information Provided for Accessibility		
404.1 General	Not applicable	
405 Privacy		

405.1 General	Not applicable	
406 Standard Connections		
406.1 General	Not applicable	
407 Operable Parts		
407.2 Contrast	Not applicable	
407.3 Input Controls		
407.3.1 Tactilely Discernible	Not applicable	
407.3.2 Alphabetic Keys	Not applicable	
407.3.3 Numeric Keys	Not applicable	
407.4 Key Repeat	Not applicable	
407.5 Timed Response	Not applicable	
407.6 Operation	Not applicable	
407.7 Tickets, Fare Cards, and Keycards	Not applicable	
407.8 Reach, Height and Depth		
407.8.1 Vertical Reference Plane	Not applicable	
407.8.1.1 Vertical Plane for Side Reach	Not applicable	
407.8.1.2 Vertical Plane for Forward Reach	Not applicable	
407.8.2 Side Reach	Not applicable	
407.8.2.1 Unobstructed Side Reach	Not applicable	
407.8.2.2 Obstructed Side Reach	Not applicable	
407.8.3 Forward Reach	Not applicable	

407.8.3.1 Unobstructed Forward Reach	Not applicable	
407.8.3.2 Obstructed Forward Reach	Not applicable	
407.8.3.2.1 Operable Part Height for ICT with Obstructed Forward Reach	Not applicable	
407.8.3.2.2 Knee and Toe Space under ICT with Obstructed Forward Reach	Not applicable	
408 Display Screens		
408.2 Visibility	Not applicable	
408.3 Flashing	Not applicable	
409 Status Indicators		
409.1 General	Not applicable	
410 Color Coding		
410.1 General	Not applicable	
411 Audible Signals		
411.1 General	Not applicable	
412 ICT with Two-Way Voice Communication		
412.2 Volume Gain		
412.2.1 Volume Gain for Wireline Telephones	Not applicable	
412.2.2 Volume Gain for Non-Wireline ICT	Not applicable	
412. 3 Interference Reduction and Magnetic Coupling		
412.3.1 Wireless Handsets	Not applicable	

412.3.2 Wireline Handsets	Not applicable	
412.4 Digital Encoding of Speech	Not applicable	
412.5 Real-Time Text Functionality	Not applicable	
412.6 Caller ID	Not applicable	
412.7 Video Communication	Not applicable	
413 Closed Caption Processing Technologies		
413.1.1 Decoding and Display of Closed Captions	Not applicable	
413.1.2 Pass-Through of Closed Caption Data	Not applicable	
414 Audio Description Processing Technologies		
414.1.1 Digital Television Tuners	Not applicable	
414.1.2 Other ICT	Not applicable	
415 User Controls for Captions and Audio Descriptions		
415.1.1 Caption Controls	Not applicable	
415.1.2 Audio Description Controls	Not applicable	

Section 508 Chapter 5: Software

Note: CDSW is not a software product.

Criteria	Conformance Level	Remarks and Explanations
501.1 Scope – Incorporation of WCAG 2.0 AA	Not applicable	
502 Interoperability with Assistive Technology		
502.2.1 User Control of Accessibility Features	Not applicable	
502.2.2 No Disruption of Accessibility Features	Not applicable	
502.3 Accessibility Services		
502.3.1 Object Information	Not applicable	
502.3.2 Modification of Object Information	Not applicable	
502.3.3 Row, Column, and Headers	Not applicable	
502.3.4 Values	Not applicable	
502.3.5 Modification of Values	Not applicable	
502.3.6 Label Relationships	Not applicable	
502.3.7 Hierarchical Relationships	Not applicable	
502.3.8 Text	Not applicable	
502.3.9 Modification of Text	Not applicable	
502.3.10 List of Actions	Not applicable	
502.3.11 Actions on Objects	Not applicable	
502.3.12 Focus Cursor	Not applicable	
502.3.13 Modification of Focus Cursor	Not applicable	

502.3.14 Event Notification	Not applicable	
502.4 Platform Accessibility Features	Not applicable	
503 Applications		
503.2 User Preferences	Not applicable	
503.3 Alternative User Interfaces	Not applicable	
503.4 User Controls for Captions and Audio Description		
503.4.1 Caption Controls	Not applicable	
503.4.2 Audio Description Controls	Not applicable	
504 Authoring Tools		
504.2 Content Creation or Editing (if not authoring tool, enter "not applicable")	Not applicable	
504.2.1 Preservation of Information Provided for Accessibility in Format Conversion	Not applicable	
504.2.2 PDF Export	Not applicable	
504.3 Prompts	Not applicable	
504.4 Templates	Not applicable	

Section 508 Chapter 6: Support Documentation and Services

Notes: The support services aimed at Cloudera customers, including support documentation, can be accessed via the MyCloudera website https://my.cloudera.com

Criteria	Conformance Level	Remarks and Explanations
602.1 Scope		CDSW
602 Support Documentation		
602.2 Accessibility and Compatibility Features	Does not support	The documentation for CDSW does not list or explain any of the accessibility and compatibility features of the product.
602.3 Electronic Support Documentation	Supports with exceptions	The support documentation is provided in electronic format (in HTML for all topics and in PDF format for some topics). It can be accessed via the MyCloudera website https://my.cloudera.com by clicking on the "View Documentation" link and thus accessing the documentation website. The documentation website and its electronic formats do not currently comply with WCAG 2.0 A/AA. Issues include but are not limited to: - Minimum contrast is an issue. Refer to WCAG Level AA 1.4.3 Contrast (Minimum). - Images do not contain appropriate text alternatives. Refer to WCAG Level A 1.1.1 Non-text Content. - Navigational controls contain graphical labels only with no text alternatives. Refer to WCAG Level A 1.1.1 Non-text Content.

		• Navigational controls and iconography with same functionality are not consistently identified. Refer to WCAG Level AA 3.2.4 Consistent Identification
602.4 Alternate Formats for Non-Electronic Support Documentation	Not applicable	All necessary documentation for CDSW is provided electronically.
603 Support Services		CDSW
603.2 Information on Accessibility and Compatibility Features	Does not support	Support services for CDSW do not provide information on the accessibility and compatibility features of the product.
603.3 Accommodation of Communication Needs	Supports with exceptions	Support service are provided via multiple services: • Cloudera has the phone line customers can call in to request support. A Cloudera employee creates a cases on behalf of the customer. • MyCloudera => Cloudera Support: Open Support Cases. This service includes a user interface to create a case to specify the problem and get support from a human expert. • MyCloudera => Community. This is a site where customer help each other via a Question-Answer site, based on Lithium Software. • MyCloudera => Knowledge Base and MyCloudera => Cloudera University

		● The documentation website (see section 602 above). Support services for CDSW are provided, among other means, via email and phone services. The other electronic services mentioned above do not fully comply with WCAG 2.0 A/AA.

Standard EN 301 549

EN 301 549 Chapter 4: Functional Performance Statements

Criteria	Conformance Level	Remarks and Explanations
4.2.1 Usage without vision	Does not support	Refer to Section 508 302.1 Without Vision
4.2.2 Usage with limited vision	Does not support	Refer to Section 508 302.2 With Limited Vision
4.2.3 Usage without perception of color	Does not support	Refer to Section 508 302.3 With Perception of Color
4.2.4 Usage without hearing	Supports	
4.2.5 Usage with limited hearing	Supports	
4.2.6 Usage without vocal capability	Supports	
4.2.7 Usage with limited manipulation or strength	Does not support	Refer to Section 508 302.7 With Limited Manipulation
4.2.8 Usage with limited reach	Does not support	Refer to Section 508 302.8 With Limited Reach and Strength
4.2.9 Minimize photosensitive seizure triggers	Supports	
4.2.10 Usage with limited cognition	Supports with exceptions	Refer to Section 508 302.9 With Limited Language, Cognitive, and Learning Abilities

EN 301 549 Functional Accessible Requirements: 5 Generic Requirements

Notes: CDSW does not contain functionality limited by characteristics that prevents a user from attaching, installing, or using assistive technology.

Criteria	Conformance Level	Remarks and Explanations
5.1 Closed functionality		
5.1.1 Introduction (informative)		
5.1.2 General		
5.1.2.1 Closed functionality	Not applicable	
5.1.2.2 Assistive technology	Not applicable	
5.1.3 Non-visual access		
5.1.3.1 General	Not applicable	
5.1.3.2 Auditory output delivery including speech	Not applicable	
5.1.3.3 Auditory output correlation	Not applicable	
5.1.3.4 Speech output user control	Not applicable	
5.1.3.5 Speech output automatic interruption	Not applicable	
5.1.3.6 Speech output for non-text content	Not applicable	
5.1.3.7 Speech output for video information	Not applicable	
5.1.3.8 Masked entry	Not applicable	
5.1.3.9 Private access to personal data	Not applicable	
5.1.3.10 Non-interfering audio output	Not applicable	

5.1.3.11 Private listening volume	Not applicable	
5.1.3.12 Speaker volume	Not applicable	
5.1.3.13 Volume reset	Not applicable	
5.1.3.14 Spoken languages	Not applicable	
5.1.3.15 Non-visual error identification	Not applicable	
5.1.3.16 Receipts, tickets and transactional outputs	Not applicable	
5.1.4 Functionality closed to text enlargement	Not applicable	
5.1.5 Visual output for auditory information	Not applicable	
5.1.6 Operation without keyboard interface		
5.1.6.1 Closed functionality	Not applicable	
5.1.6.2 Input focus	Not applicable	
5.2 Activation of accessibility features	Not applicable	
5.3 Biometrics	Not applicable	
5.4 Preservation of accessibility information during conversation	Not applicable	
5.5 Operable parts		
5.5.1 Means of operation	Not applicable	
5.5.2 Operable parts discernibility	Not applicable	
5.6 Locking or toggle controls		
5.6.1 Tactile or auditory status	Not applicable	

5.6.2 Visual status	Not applicable	
5.7 Key repeat	Not applicable	
5.8 Double-strike key acceptance	Not applicable	
5.9 Simultaneous user actions	Not applicable	

EN 301 549 Functional Accessible Requirements: 6 ICT with two-way voice communication

Notes: CDSW does not contain functionality relating to, nor does it require/rely on, two-way voice communication.

Criteria	Conformance Level	Remarks and Explanations
6.1 Audio bandwidth for speech (informative recommendation)	Not applicable	
6.2 Real-time Text (RTT) functionality		
6.2.1 RTT provision		
6.2.1.1 RTT communication	Not applicable	
6.2.1.2 Concurrent voice and text	Not applicable	
6.2.2 Display of Real-time text		
6.2.2.1 Visually distinguishable display	Not applicable	
6.2.2.2 Programmatically determinable send and receive direction	Not applicable	
6.2.3 Interoperability	Not applicable	
6.2.4 Real-time text responsiveness	Not applicable	
6.3 Caller ID	Not applicable	
6.4 Alternatives to voice-based services	Not applicable	
6.5 Video communication		
6.5.1 General (informative)	Not applicable	
6.5.2 Resolution	Not applicable	
6.5.3 Frame rate	Not applicable	

6.5.4 Synchronization between audio and video	Not applicable	
6.6 Alternatives to video-based services	Not applicable	

EN 301 549 Functional Accessible Requirements: 7 ICT with video capabilities

Notes: CDSW does not provide video capabilities.

Criteria	Conformance Level	Remarks and Explanations
7.1 Caption processing technology		
7.1.1 Captioning playback	Not applicable	
7.1.2 Captioning synchronization	Not applicable	
7.1.3 Preservation of captioning	Not applicable	
7.2 Audio description technology		
7.2.1 Audio description playback	Not applicable	
7.2.2 Audio description synchronization	Not applicable	
7.2.3 Preservation of audio description	Not applicable	
7.3 User controls for captions and audio description	Not applicable	

EN 301 549 Functional Accessible Requirements: 8 Hardware

Notes: CDSW is not a hardware product.

Criteria	Conformance Level	Remarks and Explanations
8.1 General		
8.1.1. Generic requirements		
8.1.2 Standard connections	Not applicable	
8.1.3 Color	Not applicable	
8.2 Hardware products with speech output		
8.2.1 Speech volume gain		
8.2.1.1 Speech volume range	Not applicable	
8.2.1.2 Incremental volume control	Not applicable	
8.2.2 Magnetic coupling		
8.2.2.1 Fixed-line devices	Not applicable	
8.2.2.2 Wireless communication devices	Not applicable	
8.3 Physical access to ICT		
8.3.1 General (informative)	Not applicable	
8.3.2 Clear floor or ground space		
8.3.2.1 Change in level	Not applicable	
8.3.2.2 Clear floor or ground space	Not applicable	
8.3.2.3 Approach		
8.3.2.3.1 General	Not applicable	
8.3.2.3.2 Forward approach	Not applicable	
8.3.2.3.3 Parallel approach	Not applicable	
8.3.2.4 Knee and toe clearance width	Not applicable	
8.3.2.5 Toe clearance	Not applicable	

8.3.2.6 Knee clearance	Not applicable	
8.3.3 Reach range for ICT		
8.3.3.1 Forward reach		
8.3.3.1.1 Unobstructed high forward reach	Not applicable	
8.3.3.1.2 Unobstructed low forward reach	Not applicable	
8.3.3.1.3 Outward reach		
8.3.3.1.3.1 Clear floor space	Not applicable	
8.3.3.1.3.2 Obstructed (< 510 mm) forward reach	Not applicable	
8.3.3.1.3.3 Obstructed (< 635 mm) forward reach	Not applicable	
8.3.3.2 Side reach		
8.3.3.2.1 Unobstructed high side reach	Not applicable	
8.3.3.2.2 Unobstructed low side reach	Not applicable	
8.3.3.2.3 Obstructed side reach		
8.3.3.2.3.1 Obstructed (<= 255 mm) side reach	Not applicable	
8.3.3.2.3.2 Obstructed (<= 610 mm) side reach	Not applicable	
8.3.4 Visibility	Not applicable	
8.3.5 Installation instructions	Not applicable	
8.4 Mechanically operable parts		
8.4.1 Numeric keys	Not applicable	
8.4.2 Operation of mechanical parts		

8.4.2.1 Means of operation of mechanical parts	Not applicable	
8.4.2.2 Force of operation of mechanical parts	Not applicable	
8.4.3 Keys, tickets and fare cards	Not applicable	
8.5 Tactile indication of speech mode	Not applicable	

EN 301 549 Functional Accessible Requirements: 9 Web

Criteria	Conformance Level	Remarks and Explanations
9.1 General (Informative)		
9.2 Web content requirements		
9.2.1 Non-text Content	Does not support	● Refer to WCAG Level A 1.1.1 Non-text Content.
9.2.2 Audio-only and Video-only (Prerecorded)	Not applicable	CDSW does not contain audio-only or video-only content.
9.2.3 Captions (Prerecorded)	Not applicable	● CDSW does not contain synchronized media with prerecorded audio content.
9.2.4 Audio Description or Media Alternative (Prerecorded)	Not applicable	CDSW does not contain any synchronized media which would require an alternative for time-based media or audio description.
9.2.5 Captions (Live)	Not applicable	● CDSW does not contain synchronized media with live audio content.
9.2.6 Audio description (prerecorded)	Not applicable	● CDSW does not contain any synchronized media which would require an audio description.
9.2.7 Info and Relationships	Supports with exceptions	● Refer to WCAG Level A 1.3.1 Info and Relationships.
9.2.8 Meaningful Sequence	Supports	
9.2.9 Sensory Characteristics	Supports with exceptions	Refer to WCAG Level A 1.3.3 Sensory Characteristics.
9.2.10 Use of Color	Supports with exceptions	● Refer to WCAG Level A 1.4.1 Use of Color.

9.2.11 Audio Control	Not applicable	CDSW does not contain any audio which plays automatically for more than 3 seconds.
9.2.12 Contrast (minimum)	Does not support	● Refer to WCAG Level AA 1.4.3 Contrast (Minimum).
9.2.13 Resize text	Supports with exceptions	● Refer to WCAG Level AA 1.4.4 Resize Text.
9.2.14 Images of text	Supports	
9.2.15 Keyboard	Does not support	● Refer to WCAG Level A 2.1.1 Keyboard.
9.2.16 No Keyboard Trap	Supports with exceptions	● Refer to WCAG Level A 2.1.2 No Keyboard Trap.
9.2.17 Timing Adjustable	Supports with exceptions	Refer to WCAG Level A 2.2.1 Timing Adjustable.
9.2.18 Pause, stop, hide	Not applicable	● CDSW does not contain any moving, blinking, scrolling or updating content (presented in parallel with other content).
9.2.19 Three flashes or below threshold	Supports	
9.2.20 Bypass Blocks	Does not support	Refer to WCAG Level A 2.4.1 Bypass Blocks.
9.2.21 Page Titled	Supports with exceptions	● Refer to WCAG Level A 2.4.2 Page Titled.
9.2.22 Focus Order	Does not support	● Refer to WCAG Level A 2.4.3 Focus Order.
9.2.23 Link Purpose (In Context)	Supports with exceptions	● Refer to WCAG Level A 2.4.4 Link Purpose (In Context).
9.2.24 Multiple Ways	Supports	
9.2.25 Headings and Labels	Supports with exceptions	Refer to WCAG Level AA 2.4.6 Headings and Labels.
9.2.26 Focus Visible	Does not support	Refer to WCAG Level AA 2.4.7 Focus Visible.

9.2.27 Language of Page	Supports with exceptions	Refer to WCAG Level A 3.1.1 Language of Page.
9.2.28 Language of Parts	Not applicable	CDSW does not contain changes in human language.
9.2.29 On Focus	Supports	
9.2.30 On Input	Supports	
9.2.31 Consistent Navigation	Supports	
9.2.32 Consistent Identification	Supports	
9.2.33 Error Identification	Supports with exceptions	● Refer to WCAG Level A 3.3.1 Error Identification.
9.2.34 Labels or Instructions	Does not support	● Refer to WCAG Level A 3.3.2 Labels or Instructions
9.2.35 Error Suggestion	Not applicable	● CDSW does not contain any components expecting user input that have known suggestions for corrections.
9.2.36 Error Prevention (Legal, Financial, Data)	Not applicable	● CDSW does not contain pages that cause legal commitments or financial transactions to occur.
9.2.37 Parsing	Supports with exceptions	● Refer to WCAG Level A 4.1.1 Parsing.
9.2.38 Name, role, value	Does not support	● Refer to WCAG Level A 4.1.2 Name, Role, Value.
9.3 WCAG 2.0 Conformance requirements	Does not support	● CDSW does not meet conformance requirement 1: Conformance level at level AA.

EN 301 549 Functional Accessible Requirements: 10 Non-web documents

Notes: CDSW is not a non-web document.

Criteria	Conformance Level	Remarks and Explanations
10.1 General (Informative)		
10.2 Document success criteria		
10.2.1 Non-text Content	Not applicable	
10.2.2 Audio-only and Video-only (Prerecorded)	Not applicable	
10.2.3 Captions (Prerecorded)	Not applicable	
10.2.4 Audio Description or Media Alternative (Prerecorded)	Not applicable	
10.2.5 Captions (Live)	Not applicable	
10.2.6 Audio description (prerecorded)	Not applicable	
10.2.7 Info and Relationships	Not applicable	
10.2.8 Meaningful Sequence	Not applicable	
10.2.9 Sensory Characteristics	Not applicable	
10.2.10 Use of Color	Not applicable	
10.2.11 Audio Control	Not applicable	
10.2.12 Contrast (minimum)	Not applicable	
10.2.13 Resize text	Not applicable	
10.2.14 Images of text	Not applicable	

10.2.15 Keyboard	Not applicable	
10.2.16 No Keyboard Trap	Not applicable	
10.2.17 Timing Adjustable	Not applicable	
10.2.18 Pause, stop, hide	Not applicable	
10.2.19 Three flashes or below threshold	Not applicable	
10.2.20 Empty clause		
10.2.21 Document titled	Not applicable	
10.2.22 Focus Order	Not applicable	
10.2.23 Link Purpose (In Context)	Not applicable	
10.2.24 Empty clause		
10.2.25 Headings and Labels	Not applicable	
10.2.26 Focus Visible	Not applicable	
10.2.27 Language of Page	Not applicable	
10.2.28 Language of Parts	Not applicable	
10.2.29 On Focus	Not applicable	
10.2.30 On Input	Not applicable	
10.2.31 Empty clause		
10.2.32 Empty clause		
10.2.33 Error Identification	Not applicable	
10.2.34 Labels or Instructions	Not applicable	
10.2.35 Error Suggestion	Not applicable	
10.2.36 Error Prevention (Legal, Financial, Data)	Not applicable	

10.2.37 Parsing	Not applicable	
10.2.38 Name, role, value	Not applicable	
10.2.39 Caption positioning	Not applicable	
10.2.40 Audio description timing	Not applicable	

EN 301 549 Functional Accessible Requirements: 11 Software

Notes: CDSW is not a software product.

Criteria	Conformance Level	Remarks and Explanations
11.1 General (Informative)		
11.2 Non-Web software success criteria	Not applicable	
11.2.1 Non-Web software success criteria (excluding closed functionality)		
11.2.1.1 Non-text Content (screen reader supported)	Not applicable	
11.2.1.2 Audio-only and Video-only (Prerecorded)	Not applicable	
11.2.1.3 Captions (Prerecorded)	Not applicable	
11.2.1.4 Audio Description or Media Alternative (Prerecorded)	Not applicable	
11.2.1.5 Captions (Live)	Not applicable	
11.2.1.6 Audio description (prerecorded)	Not applicable	
11.2.1.7 Info and Relationships	Not applicable	
11.2.1.8 Meaningful Sequence	Not applicable	
11.2.1.9 Sensory Characteristics	Not applicable	
11.2.1.10 Use of Color	Not applicable	
11.2.1.11 Audio Control	Not applicable	
11.2.1.12 Contrast (minimum)	Not applicable	

11.2.1.13 Resize text	Not applicable	
11.2.1.14 Images of text	Not applicable	
11.2.1.15 Keyboard	Not applicable	
11.2.1.16 No Keyboard Trap	Not applicable	
11.2.1.17 Timing Adjustable	Not applicable	
11.2.1.18 Pause, stop, hide	Not applicable	
11.2.1.19 Three flashes or below threshold	Not applicable	
11.2.1.20 Empty clause		
11.2.1.21 Empty clause		
11.2.1.22 Focus Order	Not applicable	
11.2.1.23 Link Purpose (In Context)	Not applicable	
11.2.1.24 Empty clause		
11.2.1.25 Headings and Labels	Not applicable	
11.2.1.26 Focus Visible	Not applicable	
11.2.1.27 Language of Software	Not applicable	
11.2.1.28 Empty clause		
11.2.1.29 On Focus	Not applicable	
11.2.1.30 On Input	Not applicable	
11.2.1.31 Empty clause		
11.2.1.32 Empty clause		
11.2.1.33 Error Identification	Not applicable	

11.2.1.34 Labels or Instructions	Not applicable	
11.2.1.35 Error Suggestion	Not applicable	
11.2.1.36 Error Prevention (Legal, Financial, Data)	Not applicable	
11.2.1.37 Parsing	Not applicable	
11.2.1.38 Name, role, value	Not applicable	
11.2.2 Non-Web software success criteria (closed functionality)		
11.2.2.1 Non-text Content (screen reader supported)	Not applicable	
11.2.2.2 Audio-only and video-only (pre-recorded)		
11.2.2.2.1 Pre-recorded audio-only	Not applicable	
11.2.2.2.2 Pre-recorded video-only	Not applicable	
11.2.2.3 Empty clause		
11.2.2.4 Audio Description or Media Alternative (Prerecorded)	Not applicable	
11.2.2.5 Empty clause		
11.2.2.6 Empty clause		
11.2.2.7 Info and Relationships	Not applicable	
11.2.2.8 Meaningful Sequence	Not applicable	
11.2.2.9 Empty clause		

11.2.2.10 Empty clause		
11.2.2.11 Empty clause		
11.2.2.12 Empty clause		
11.2.2.13 Resize text	Not applicable	
11.2.2.14 Images of text	Not applicable	
11.2.2.15 Keyboard	Not applicable	
11.2.2.16 Empty clause		
11.2.2.17 Empty clause		
11.2.2.18 Empty clause		
11.2.2.19 Empty clause		
11.2.2.20 Empty clause		
11.2.2.21 Empty clause		
11.2.2.22 Empty clause		
11.2.2.23 Empty clause		
11.2.2.24 Empty clause		
11.2.2.25 Empty clause		
11.2.2.26 Empty clause		
11.2.2.27 Language of Software	Not applicable	
11.2.2.28 Empty clause		
11.2.2.29 Empty clause		
11.2.2.30 Empty clause		
11.2.2.31 Empty clause		
11.2.2.32 Empty clause		
11.2.2.33 Error Identification	Not applicable	
11.2.2.34 Empty clause		

11.2.2.35 Empty clause		
11.2.2.36 Empty clause		
11.2.2.37 Parsing	Not applicable	
11.2.2.38 Name, role, value	Not applicable	
11.3 Interoperability with assistive technology		
11.3.1 Closed functionality	N/A	
11.3.2 Accessibility services		
11.3.2.1 Platform accessibility service support for software that provides a user interface	Not applicable	
11.3.2.2 Platform accessibility service support for assistive technologies	Not applicable	
11.3.2.3 Use of accessibility services	Not applicable	
11.3.2.4 Assistive technology	Not applicable	
11.3.2.5 Object information	Not applicable	
11.3.2.6 Row, column, and headers	Not applicable	
11.3.2.7 Values	Not applicable	
11.3.2.8 Label relationships	Not applicable	
11.3.2.9 Parent-child relationships	Not applicable	

11.3.2.10 Text	Not applicable	
11.3.2.11 List of available actions	Not applicable	
11.3.2.12 Execution of available actions	Not applicable	
11.3.2.13 Tracking of focus and selection attributes	Not applicable	
11.3.2.14 Modification of focus and selection attributes	Not applicable	
11.3.2.15 Change notification	Not applicable	
11.3.2.16 Modifications of states and properties	Not applicable	
11.3.2.17 Modifications of values and text	Not applicable	
11.4 Documented accessibility usage		
11.4.1 User control of accessibility services	Not applicable	
11.4.2 No disruption of accessibility features	Not applicable	
11.5 User preferences	Not applicable	
11.6 Authoring tools		
11.6.1 Content technology	Not applicable	
11.6.2 Accessible content creation	Not applicable	
11.6.3 Preservation of accessibility information in transformations	Not applicable	

11.6.4 Repair assistance	Not applicable	
11.6.5 Templates	Not applicable	

EN 301 549 Functional Accessible Requirements: 12 Document and support services

Notes: The support services aimed at Cloudera customers, including support documentation, can be accessed via the MyCloudera website https://my.cloudera.com

Criteria	Conformance Level	Remarks and Explanations
12.1 Product documentation		
12.1.1 Accessibility and compatibility features	Does not support	CDSW has support documentation available via the same website (see 602.3 below).
12.1.2 Accessible documentation	Supports with exceptions	The support documentation is provided in electronic format (in HTML for all topics and in PDF format for some topics). It can be accessed via the MyCloudera website https://my.cloudera.com by clicking on the "View Documentation" link and thus accessing the documentation website. The documentation website and its electronic formats do not currently comply with WCAG 2.0 A/AA. Issues include but are not limited to: ● Minimum contrast is an issue. Refer to WCAG Level AA 1.4.3 Contrast (Minimum). ● Images do not contain appropriate text alternates. Refer to WCAG Level A 1.1.1 Non-text Content. ● Navigational controls contain graphical labels only with no text alternatives. Refer to WCAG Level A 1.1.1 Non-text Content.

		• Navigational controls and iconography with same functionality are not consistently identified. Refer to WCAG Level AA 3.2.4 Consistent Identification
12.2 Support services		
12.2.1 General (informative)		
12.2.2 Information on accessibility and compatibility features	Does not support	Support services for CDSW do not provide information on the accessibility and compatibility features of the product.
12.2.3 Effective communication	Supports with exceptions	Support service are provided via multiple services: • Cloudera has the phone line customers can call in to request support. A Cloudera employee creates a cases on behalf of the customer. • MyCloudera => Cloudera Support: Open Support Cases. This service includes a user interface to create a case to specify the problem and get support from a human expert. • MyCloudera => Community. This is a site where customer help each other via a Question-Answer site, based on Lithium Software. • MyCloudera => Knowledge Base and MyCloudera => Cloudera University

		● The documentation website (see section 602 above). Support services for CDSW are provided, among other means, via email and phone services. The other electronic services mentioned above do not fully comply with WCAG 2.0 A/AA.
12.2.4 Accessible documentation	Supports with exceptions	The support documentation is provided in electronic format (in HTML for all topics and in PDF format for some topics). It can be accessed via the MyCloudera website https://my.cloudera.com by clicking on the "View Documentation" link and thus accessing the documentation website. The documentation website and its electronic formats do not fully comply with WCAG 2.0 A/AA. Issues include but are not limited to: ● Minimum contrast is an issue. Refer to WCAG Level AA 1.4.3 Contrast (Minimum). ● Images do not contain appropriate text alternates. Refer to WCAG Level A 1.1.1 Non-text Content. ● Navigational controls contain graphical labels only with no text alternatives. Refer to WCAG Level A 1.1.1 Non-text Content. ● Navigational controls and iconography with same functionality are not consistently identified. Refer to WCAG Level AA 3.2.4 Consistent Identification

EN 301 549 Functional Accessible Requirements: 13 ICT providing relay or emergency service access

Notes: CDSW does not provide relay or emergency service access.

Criteria	Conformance Level	Remarks and Explanations
13.1.1 General (Informative)		
13.1.2 Text relay services	Not applicable	
13.1.3 Sign relay services	Not applicable	
13.1.4 Lip-reading relay services	Not applicable	
13.1.5 Captioned telephony services	Not applicable	
13.1.6 Speech to speech relay services	Not applicable	
13.2 Access to relay services	Not applicable	

Legal disclaimer

Nothing in this VPAT shall be construed as a representation, warranty, or guarantee given by Cloudera that any of our products, services, or website features will work in any particular manner, or that they will be free from bugs or defects. Cloudera has provided this VPAT solely as a convenience, and nothing in this VPAT should be relied upon in any way.