Jamf Accessibility Conformance Report

VPAT® Version 2.3 – December 2018

Name of Product/Version: Jamf Pro 10

Product Description: Jamf Pro is an Enterprise Mobility Management (EMM) tool for managing Apple devices running macOS, iOS, and tvOS

Date: February 15th, 2019

Contact information: accessibility@jamf.com

Applicable Standards/Guidelines

This report covers the degree of conformance for the following accessibility standard/guidelines:

Standard/Guideline	Included In Report
Web Content Accessibility Guidelines 2.0, at *http://www.w3.org/TR/2008/REC-WCAG20-20081211/*	Level A (Yes) Level AA (Yes) Level AAA (No)
Revised Section 508 standards as published by the U.S. Access Board in the Federal Register on January 18, 2017 Corrections to the ICT Final Rule as published by the US Access Board in the Federal Register on January 22, 2018	(Yes)

Terms

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.
- **Partially Supports**: 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 be used only in WCAG 2.0 Level AAA.

WCAG 2.0 Report

Tables 1 and 2 also document conformance with:
- Chapter 5 – 501.1 Scope, 504.2 Content Creation or Editing
- Chapter 6 – 602.3 Electronic Support Documentation

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.

Table 1: Success Criteria, Level A

Notes:

Criteria	Conformance Level	Remarks and Explanations
1.1.1 Non-text Content (Level A) Also applies to: Revised Section 508 • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs)	Partially Supports	• The three images at the top of the navigation panel (Computers, Devices, Users), are all marked with the AngularJS ng-alt, rather than with the HTML alt attribute. Two screen readers, JAWS and NVDA, identify these images by correctly reading the ng-alt value, but VoiceOver does not recognize this attribute and instead identifies the images by their filenames (e.g., "computers-color-tab-icon"). • The Jamf Pro logo at the top of each screen is also labeled with ng-alt and with the title="Jamf Pro" attribute. Not all screen readers will read the title attribute (some users may turn this feature off), so this image should instead be labeled with the HTML alt attribute (alt="Jamf Pro"). • The selectable images in the navigation panel are all unlabeled (i.e., they lack the alt attribute or other hidden label), although the adjacent selectable text labels are all read aloud by screen readers. When the navigation panel is collapsed and the text labels are hidden, however, the text labels are no longer available. Because the images are unlabeled, assistive technology can no longer identify the links in the panel. • In screens such as PreStageImaging- BCB, the images in the navigation region all serve decorative purposes and should be hidden by removing the descriptive alt text (which is redundant with the visible text label) and using null alt instead. • CSS background images are used throughout Jamf Pro. In most cases, the use of CSS background images is discouraged because the images are neither discoverable by assistive technology nor can they accept a text alternative. Exceptions are images that are purely decorative

Criteria	Conformance Level	Remarks and Explanations
		and do not convey any information. The background images in Jamf Pro all appear to be used in a decorative manner, and none appear to be used to provide background contrast for overlay text (e.g., the banner images on most pages). CSS background images (informative or otherwise) usually disappear from the page when Windows' high-contrast mode is enabled, which may then render the foreground text difficult to read or see clearly.

1.2.1 Audio-only and Video-only (Prerecorded) (Level A)
Also applies to:
Revised Section 508
   • 501 (Web)(Software)
   • 504.2 (Authoring Tool)
   • 602.3 (Support Docs)
	Not Applicable	• Audio-only and video-only material are not used in the Dashboard.

1.2.2 Captions (Prerecorded) (Level A)
Also applies to:
Revised Section 508
   • 501 (Web)(Software)
   • 504.2 (Authoring Tool)
   • 602.3 (Support Docs)
	Not Applicable	• Multimedia is not used in the Dashboard.

1.2.3 Audio Description or Media Alternative (Prerecorded) (Level A)
Also applies to:
Revised Section 508
   • 501 (Web)(Software)
   • 504.2 (Authoring Tool)
   • 602.3 (Support Docs)
	Not Applicable	• Multimedia is not used in the Dashboard.

1.3.1 Info and Relationships (Level A)
Also applies to:
Revised Section 508
   • 501 (Web)(Software)
   • 504.2 (Authoring Tool)
   • 602.3 (Support Docs)
	Partially Supports	• Sortable data tables (e.g., Mac App Store Apps) are used throughout the Dashboard to display lists and groupings of hardware and software. The tables themselves have been marked up in an accessible manner. However, the sortable header cells are not marked up in a manner that makes them identifiable or controllable by

Criteria	Conformance Level	Remarks and Explanations
		screen-reader users: the state of the sorted column (e.g., ascending or descending) is not always clearly or accurately communicated to the user. The state of the sort order can be conveyed to assistive technology by using the aria-sort property. See an example of a sortable grid, and read more about interactive tables and grids. • Modal dialogs, such as those on Maintenance Pages, or Management Certificate Template (Create Certificate/Create CA Backup buttons), or the Session Expiring/Session Expired dialog that appears when users are logged out of the Dashboard after a period of inactivity, are not identified or announced by all screen readers when they appear on the screen. These modal dialogs also do not constrain the focus to stay within the window, so screen-reader users may not even be aware that they have appeared on the screen. Modal dialogs can be made more accessible to keyboard-only and screen-reader users; read a discussion about creating accessible modal windows and see NCAM's demonstration of an accessible modal dialog to learn more. • In the navigation panel, screen-reader users are not alerted when any of the tabs representing the three categories (Computers, Devices, Users) have been selected. The most accessible approach here would be to treat the content of the navigation panel as a tab panel. Learn about markup for creating an accessible tab panel, and see a demonstration of an accessible tab interface. Also see a detailed discussion about accessible tab interfaces for information on improving the accessibility of this component. • The expanding sections on pages such as Configuration Profiles, Policies or Patch Management, are not marked up to convey their

Criteria	Conformance Level	Remarks and Explanations
		states (expanded or collapsed) to screen readers. On the buttons that serve as triggers, use ARIA properties such as aria-expanded and aria-controls to convey the status of the sections to screen-reader users. See a simple example of accessible accordions/expanding sections. Read more about accessible markup for expanding sections and see a demonstration of accessible expanding sections.
1.3.2 Meaningful Sequence (Level A) Also applies to: Revised Section 508 501 (Web)(Software) 504.2 (Authoring Tool) 602.3 (Support Docs)	Supports	
1.3.3 Sensory Characteristics (Level A) Also applies to: Revised Section 508 501 (Web)(Software) 504.2 (Authoring Tool) 602.3 (Support Docs)	Supports	
1.4.1 Use of Color (Level A) Also applies to: Revised Section 508 501 (Web)(Software) 504.2 (Authoring Tool) 602.3 (Support Docs)	Partially Supports	- On any page where the status graphs are shown (e.g., on the Dashboard landing screen), the status indicators all use colors to show status levels (green for Completed; gray for Remaining; red for Failed). - Checkboxes, such as Policies > Options > Show in Jamf Pro Dashboard, as well as the blue Edit and Save buttons, convey focus solely through a very slight shift in color (from dark blue to a slightly lighter blue) when they are checked. This shift is subtle enough that it will likely be difficult or impossible for many users, with or without visual impairments, to detect. - Radio buttons, such as those found on Users > eBooks, show focus by changing the color of the button's edge from light gray to light blue.

Criteria	Conformance Level	Remarks and Explanations
		Because the button's edge is very thin, and the color shift is very subtle, users with visual impairments (or even users with no visual impairments) may miss this focus indicator completely. • On some forms, such as New Device Enrollment Program, New Building or Cloud Distribution Point, errors are conveyed only by changing the outline from a gray box to a red box around the erroneous elements, as well as a change in label color from gray to red.
1.4.2 Audio Control (Level A) Also applies to: Revised Section 508 • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs)	Not Applicable	• Automatically playing audio or video are not found in the Dashboard.
2.1.1 Keyboard (Level A) Also applies to: Revised Section 508 • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs)	Partially supports	• Most areas of the Dashboard are accessible from the keyboard but there are a few important areas that remain out of reach to anyone not using a mouse or other pointing device. Examples are listed below. • The Accounts, Notifications and Settings icons in the toolbar at the top of the screen. • The Collapse/Expand control at the bottom of the Navigation panel. • The tab-panel buttons found on the Inventory Display screen. • The drop-down menus positioned next to the Search fields on the Computers, Devices and Users landing pages. • The selectable column headers on all pages with sortable tables (e.g., Licensed Software, Mac App Store Apps, etc.).

Criteria	Conformance Level	Remarks and Explanations

2.1.2 No Keyboard Trap (Level A)
Also applies to:
Revised Section 508
   • 501 (Web)(Software)
   • 504.2 (Authoring Tool)
   • 602.3 (Support Docs)
	Supports	• Keyboard traps were not found in the Dashboard.

2.2.1 Timing Adjustable (Level A)
Also applies to:
Revised Section 508
   • 501 (Web)(Software)
   • 504.2 (Authoring Tool)
   • 602.3 (Support Docs)
	Partially Supports	• There is a timeout interval on the Jamf Pro Dashboard. Users are alerted before the limit is reached, but the modal window that displays the alert is not keyboard accessible, nor are screen readers alerted when the modal window appears on the screen.

2.2.2 Pause, Stop, Hide (Level A)
Also applies to:
Revised Section 508
   • 501 (Web)(Software)
   • 504.2 (Authoring Tool)
   • 602.3 (Support Docs)
	Supports	• Automatic animation is not used in the Dashboard.

2.3.1 Three Flashes or Below Threshold (Level A)
Also applies to:
Revised Section 508
   • 501 (Web)(Software)
   • 504.2 (Authoring Tool)
   • 602.3 (Support Docs)
	Not Applicable	• Flashing content is not used in the Dashboard.

2.4.1 Bypass Blocks (Level A)
Also applies to:
Revised Section 508
   • 501 (Web)(Software) – Does not apply to non-web software
   • 504.2 (Authoring Tool)
   • 602.3 (Support Docs) – Does not apply to non-web docs
	Partially Supports	• ARIA landmark roles are not implemented in the Dashboard, but two HTML sectioning elements (header and nav) are defined on each page. The main element (or the ARIA landmark role role="main") is not used on any screen of the Dashboard. Add this element (or the ARIA role) as a container for the main content region so assistive-technology users can quickly and efficiently bypass the navigation panel and move directly into the main region.
		• On screens with multiple navigation panels, such as PreStageImaging-BCB, include a

Criteria	Conformance Level	Remarks and Explanations
		second nav region and label it with aria-label to differentiate it from the global navigation panel (e.g., <nav aria-label="Options links" ... >. • No skip links are provided to allow keyboard users to move the browser focus directly to the main content region of each page.

2.4.2 Page Titled (Level A)
Also applies to:
Revised Section 508
    • 501 (Web)(Software)
    • 504.2 (Authoring Tool)
    • 602.3 (Support Docs)
	Supports	• All pages checked were marked with descriptive titles.

2.4.3 Focus Order (Level A)
Also applies to:
Revised Section 508
    • 501 (Web)(Software)
    • 504.2 (Authoring Tool)
    • 602.3 (Support Docs)
	Supports	

2.4.4 Link Purpose (In Context) (Level A)
Also applies to:
Revised Section 508
    • 501 (Web)(Software)
    • 504.2 (Authoring Tool)
    • 602.3 (Support Docs)
	Supports	

3.1.1 Language of Page (Level A)
Also applies to:
Revised Section 508
    • 501 (Web)(Software)
    • 504.2 (Authoring Tool)
    • 602.3 (Support Docs)
	Supports	• All pages are marked with the language declaration lang="en".

3.2.1 On Focus (Level A) Also applies to: Revised Section 508 • 501 (Web)(Software)	Supports	• There are no changes of context in the Dashboard when components are focused.

Criteria	Conformance Level	Remarks and Explanations
• 504.2 (Authoring Tool) • 602.3 (Support Docs)		
3.2.2 On Input (Level A) Also applies to: Revised Section 508 • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs)	Partially Supports	• On screens with expand/collapse controls, such as Configuration Profiles, Policies or Patch Management, the focus moves away from the control when the button is activated by pressing the spacebar. Instead, leave the focus on the button and let the user move the focus manually. **Note**: this behavior appears only to be evident on larger expand/collapse buttons, such as the ones at the top of the pages above. When the smaller expand/collapse buttons are activated, the focus **does** remain on the controls themselves.
3.3.1 Error Identification (Level A) Also applies to: Revised Section 508 • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs)	Not Supported	• No error messages are presented, visually or programmatically, when incorrect log-in credentials are entered on the log-in page. • Errors on forms such as New Device Enrollment Program or Cloud Distribution Point are indicated solely by a change in color around the erroneous form elements, with no other visible indication of an error. See section 1.4.1 for more information.
3.3.2 Labels or Instructions (Level A) Also applies to: Revised Section 508 • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs)	Partially Supports	• On the log-in screen, only placeholder text is used to label the Username/Password fields. When using placeholder text, always include an explicit label that will remain visible when users are editing the field. Read more about the use of placeholder text. • Similarly, only placeholder text is used to label the Search forms on Advanced Computer Searches and Search VPP Content and all filter inputs, such as Patch Management. • Placeholder text as well as visible labels are used on text inputs on pages such as New Device

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		Enrollment Program, New Building or Cloud Distribution Point, but the inputs are not labeled in an accessible manner: i.e., the label element (or other method) is not used to explicitly associate the visible labels with their respective inputs.
4.1.1 Parsing (Level A) Also applies to: Revised Section 508 • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs)	Partially Supported	• Markup contains validation errors (as reported by the W3C Markup Validation Service), including but not limited to invalid nesting of some elements, as well as many unrecognized instances of attributes. Eliminating these errors and validating the code may not correct any of the accessibility problems reported in this evaluation, but providing valid code always helps to improve the usability of the site for all users.
4.1.2 Name, Role, Value (Level A) Also applies to: Revised Section 508 • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs)	Partially Supports	• Some roles, states, labels, errors and structural cues are provided throughout the site, but many are missing as reported elsewhere in this evaluation.

Table 2: Success Criteria, Level AA

Notes:

Criteria	Conformance Level	Remarks and Explanations
1.2.4 Captions (Live) (Level AA) Also applies to: Revised Section 508 • 501 (Web)(Software) • 504.2 (Authoring Tool)	Not Applicable	• Live multimedia is not used in the dashboard

Criteria	Conformance Level	Remarks and Explanations
• 602.3 (Support Docs)		

1.2.5 Audio Description (Prerecorded) (Level AA)
Also applies to:
Revised Section 508
  • 501 (Web)(Software)
  • 504.2 (Authoring Tool)
  • 602.3 (Support Docs)
	Not Applicable	• Multimedia is not used in the dashboard

1.4.3 Contrast (Minimum) (Level AA)
Also applies to:
Revised Section 508
  • 501 (Web)(Software)
  • 504.2 (Authoring Tool)
  • 602.3 (Support Docs)
	Partially Supports	The Dashboard uses many foreground/background patterns that meet WCAG criteria for sufficient contrast. There are some exceptions, including but not limited to the following instances:
		
		• In the navigation panel, the category-divider text (Inventory, Content Management, etc.) that is very dark gray (#666666) shown over a nearly black background ((#333333).
		• Also, in the navigation panel, the images representing each function in the Dashboard, which are dark blue shown over the nearly black background. Although these images are not text, they are the only way that users can identify functions in the Dashboard when the collapsed-menu view (i.e., when the text labels are hidden) is in use.
		• On buttons such as Save and Edit, as well as checked checkboxes and selected radio buttons, the white text or checkmark that is shown over a blue background (#268AFF). Darkening the background to #1C6FF7 or similar would provide sufficient contrast levels.
		• Throughout the Dashboard, the blue-gray text (#778EB1) that is displayed over a white background: for example, the text in Computers > Policies > Options, or text used in the Settings section of the application.

1.4.4 Resize text (Level AA)	Does not Support	• In all browsers, text sizes increase appropriately using zoom commands.

Criteria	Conformance Level	Remarks and Explanations

Also applies to:
Revised Section 508
   • 501 (Web)(Software)
   • 504.2 (Authoring Tool)
   • 602.3 (Support Docs)
		• Text-only zoom works in all browsers except for IE, because font sizes have been specified using absolute units rather than relative units.

1.4.5 Images of Text (Level AA)
Also applies to:
Revised Section 508
   • 501 (Web)(Software)
   • 504.2 (Authoring Tool)
   • 602.3 (Support Docs)
	Not applicable	• Images of text do not appear to be part of the Jamf Dashboard.

2.4.5 Multiple Ways (Level AA)
Also applies to:
Revised Section 508
   • 501 (Web)(Software) – Does not apply to non-web software
   • 504.2 (Authoring Tool)
   • 602.3 (Support Docs) – Does not apply to non-web docs
	Supports	• Important paths through the site can be accessed via the navigation panel, a search mechanism and a breadcrumb trail.

2.4.6 Headings and Labels (Level AA)
Also applies to:
Revised Section 508
   • 501 (Web)(Software)
   • 504.2 (Authoring Tool)
   • 602.3 (Support Docs)
	Partially Supports	• Headings are present in all navigation panels, with each category marked as h3 or h4, depending on the panel in use.
		• No screens or pages are marked with h1. The best practice would be to assign each page title with h1, such as \<h1\>Configuration Profiles\</h1\>, \<h1\>preStage Imaging\</h1\>, \<h1\>Smart Computer Groups\</h1\>, etc. h2can then be assigned to any subheads within each category (if they are present).

2.4.7 Focus Visible (Level AA)
Also applies to:
Revised Section 508
   • 501 (Web)(Software)
   • 504.2 (Authoring Tool)
	Partially Supports	• The default browser focus indicator is employed throughout the Dashboard, so the color and the shape of the indicator will look different from one browser to the next: in Chrome and Safari, the focus indicator is a blue translucent ring; in Firefox and IE it is a thin dotted box. These

Criteria	Conformance Level	Remarks and Explanations
• 602.3 (Support Docs)		different indicators-- especially those for Firefox and IE-- may be difficult for users to detect around certain objects, such as the icons in the Management Settings screens. • Around buttons and certain form controls, like drop-down lists and unchecked checkboxes, a custom focus-- a thin blue ring-- has been implemented, However, this indicator is so thin that it may be impossible for some users, with or without visual disabilities, to see clearly. Adding a pixel or two to its width would make it easier to detect. • On the log-in page, there is no focus indicator on the log-in button. • The focus indicator around the three main buttons in the navigation panel (Computers, Devices, Users) appears to be incomplete in Safari, IE and Chrome, as well as Firefox /Mac: the indicator is a single vertical line, which cannot be clearly associated with any of the three buttons. Only in Firefox/Windows does the focus indicator display as a box or ring around each of the three buttons.
3.1.2 Language of Parts (Level AA) Also applies to: Revised Section 508 • 501 (Web)(Software) • 504.2 (Authoring Tool) • 602.3 (Support Docs)	Not applicable	• Foreign terms or phrases do not appear to be used in the Dashboard.
3.2.3 Consistent Navigation (Level AA) Also applies to: Revised Section 508 • 501 (Web)(Software) – Does not apply to non-web software • 504.2 (Authoring Tool) • 602.3 (Support Docs) – Does not apply to non-web docs	Supports	

Criteria	Conformance Level	Remarks and Explanations

3.2.4 Consistent Identification (Level AA)
Also applies to:
Revised Section 508
   • 501 (Web)(Software) – Does not apply to non-web software
   • 504.2 (Authoring Tool)
   • 602.3 (Support Docs) – Does not apply to non-web docs
	Supports	

3.3.3 Error Suggestion (Level AA)
Also applies to:
Revised Section 508
   • 501 (Web)(Software)
   • 504.2 (Authoring Tool)
   • 602.3 (Support Docs)
	Partially Supports	• Error messages are provided visually, but screen readers are not alerted when errors appear on the screen. See section 3.3.1 for more information.

3.3.4 Error Prevention (Legal, Financial, Data) (Level AA)
Also applies to:
Revised Section 508
   • 501 (Web)(Software)
   • 504.2 (Authoring Tool)
   • 602.3 (Support Docs)
	Not applicable	• Legal or financial transactions are not performed in the Dashboard.

Legal Disclaimer (Company)

Include your company legal disclaimer here, if needed.