



Software firm's focus on accessibility improves user experience for all

Web application accessibility is critical to the ongoing success of any digital application. In fact, the Americans with Disabilities Act (ADA) includes digital assets in its definition of “public places of accommodation” that should adhere to accessibility standards. Jamf, a global software company based in Minneapolis, Minn., produces applications to manage Apple devices and services and has a community of more than 53,000 customers, including those who are impaired. When customer feedback suggested there was work to be done to improve accessibility, Jamf leaders did not shy away.

Jamf committed to improving the accessibility of its applications, understanding its diverse users' needs and applying them to its product roadmaps. The organisation engaged Protiviti to conduct an [accessibility review](#) of its software. Accessibility reviews are often considered when public-facing websites want to ensure compliance with ADA regulations and Web Content Accessibility Guidelines (WCAG), but they are also critical for assessing and improving accessibility and general user experience (UX) of any software applications.

“At Jamf, we believe it's important to ensure our products are designed and coded to be inclusive of everyone,” said Deb Morris, Jamf's Manager of User Experience Design. Rather than ignore the accessibility issues, Jamf took steps to own them and make necessary changes.

Jamf product experts worked with Protiviti a blended team, first focused on core user journeys for five different Jamf applications. The team conducted automated tests using web-based tools before progressing to manual testing and found that both testing methods were vital in pinpointing accessibility issues. For example, when tabbing from field to field (which mobility-impaired users often prefer to using a mouse), the tests demonstrated that hidden fields had been included in the tab order, resulting in a confusing user experience.

The team next progressed to screen reader testing with both Apple- and Windows-based screen readers. (Screen readers render text and image content as speech.) Even though Jamf software supports the Apple platform exclusively, the team did not assume its system administrator users were on Apple devices all the time.

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— Deb Morris, Manager of User Experience Design, Jamf

Once automated, manual and screen reader testing was completed and the team engaged real-life users. The team conducted participant testing via recorded teleconferences, engaging test participants with diverse impairments. Some participants had limited vision impairments, while others had mobility issues or limited hearing, so notification chimes or video audio, for instance, would need to be complemented with other methods of alerting users to system events. Many participants relied on the Apple or Windows operating system’s magnifying tools, alone or in conjunction with a screen reader. Participant testing sessions yielded new insights about accommodations that would make users’ work easier. Having participants who used accessibility tools every day was helpful and yielded fresh perspectives on using the software.

Access to Jamf product experts was essential to understanding the products and identifying which key tasks should be the focus of testing efforts. At each project meeting, team members reviewed WCAG to strengthen their collective understanding of how experts evaluate accessibility. That knowledge, paired with reviewing detailed test output and progress reports, helped the team prioritise issues. Recording participant tests enriched reports and team presentations. “We could actually watch the test participant and see their experience using our products and what specific things would cause them to struggle with a task,” said Morris. “It was great to have that combination of knowing what was right, what was wrong, and how to solve the problem for our users.”

The team was excited to find that tackling accessibility issues resulted in an improved experience for all users, not just those with impairments. The beauty of the team’s accessibility testing approach was in its economy: patterns of past design and development decisions emerged. In many cases, once these patterns were identified, one single fix could be applied to multiple features and screens.

As an added benefit, Jamf found itself taking a two-pronged approach to identifying and resolving accessibility issues. While working to improve software’s accessibility in the near term, the team developed new practices in parallel so that future product development and coding would ensure accessibility from the start. In conjunction with accessibility testing, Jamf now has a new, organised framework of more-accessible components in its design system, where they can be managed globally and made available to the firm’s full range of applications.

The project with Protiviti helped Jamf shift the perspective of Jamf engineers and developers around accessibility testing and created a strong desire in the team to learn more about designing accessible software for future product releases — increasing the company’s internal expertise. Additionally, the project provided resources that Jamf is using to advance accessibility even further in the future, creating a better product and a better customer experience while ensuring compliance with ADA and other critical best practices.

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