Improving User Experience of Cisco Jabber
How Cisco Jabber for Mac team improved user experience through accessibility.

EXECUTIVE SUMMARY
CHALLENGE
• Limited time and resources
• Balancing accessibility and feature development needs
• Helping ensure appropriate testing for accessibility
SOLUTION
• Phased development approach to accessibility
• Identifying common use cases
• Establishing an earlier-adopter internal community of 8,500 Cisco users
RESULTS
• Delivery of critical accessibility enhancements
• Development of first-class Mac application focused on user experience

Challenges

This case study describes how the Cisco Accessibility Initiative team and the Cisco Jabber™ team evolved the Cisco® Jabber for Mac product through well-informed decision making and internal collaboration.

Cisco Jabber for Mac, a next-generation unified communications client, was released in September 2011. The team sought to address accessibility requirements in addition to supporting a full suite of unified communications capabilities, including instant messaging and presence, desktop sharing, voice, voice messaging, and web conferencing.

During the launch planning process, the objective was to help ensure Cisco delivered the best possible user experience, including accessibility. The team encountered a number of challenges. From an accessibility standpoint, Cisco Jabber for Mac had to be equal to, if not better than, the previous generation client, Cisco Unified Personal Communicator (CUPC) for Mac. Jabber for Mac's predecessor, CUPC Mac, provided for solid accessibility, and the team did not want to regress from that level of usability. A few of the main challenges included:

- Finding a way to leverage the limited resources and time on the project to focus on accessibility
- Balancing the requirement to meet accessibility compliance with the need to complete feature development
- Obtaining the proper test coverage around accessibility to verify the solutions met users' needs

"Jabber for Mac was a 'labor of love' for the Cisco product ownership team, from engineering and QA, to product and program management. Foremost in the team's mind was creating the best possible overall user experience, and accessibility was a key element of that goal. By focusing on the end user's experience and delivering a best-of-class, native Mac application, the team inherently adopted the benefits and strengths of the underlying Mac platform. Together with the excellent feedback and participation from the large, internal Cisco early-adopter community, and the help of the accessibility team, the group was able to identify key areas that allowed the team to prioritize and implement changes that had a significant positive impact to the final user experience and the application's accessibility. This was an excellent example of product team commitment merging with the passion of a large community to create something beyond everyone's expectations."

M. Michael Acosta, Director of Engineering, Cisco Mobility and Mac Group.

Solution

The Cisco Jabber for Mac team established early on that they would build with accessibility in mind to optimize the amount of leverage that they would get from the native operating system (OS) accessibility support. Given limited time and resources, the team developed a phased approach for implementing the accessibility requirements. Instead of attempting to tackle every aspect of accessibility at the onset, they focused first on keyboard navigation, which was identified as one of the key accessibility requirements. To help ensure optimal usability of the product, the team defined common use cases, such as answering and transferring calls. Based on the common use cases, they then defined keyboard shortcuts that would best support these use cases.

In addition, the team wanted to help ensure that the keyboard shortcuts did not conflict with the keyboard navigation mechanisms used by the Mac OS. For example, "Command+A" could not be used for answering calls because it is used by the OS for "Select All". With close collaboration and guidance from the Cisco accessibility team, as well as feedback from internal early product adopters, the team was able to quickly identify and resolve issues associated with accessibility. To facilitate this, they used an iterative development approach, which included defining and prioritizing requirements, implementing, testing, feedback, and re-work (as needed). This close collaboration was instrumental in meeting the top accessibility needs for the product.

Given the focus on user experience and the accessibility goals for the product, the Cisco Jabber for Mac group worked very closely with the accessibility team to help guarantee the application's usability impact was maximized. The accessibility team provided significant guidance and prioritization of the accessibility requirements. With this feedback, they were able to deliver critical accessibility enhancements in the initial Cisco Jabber for Mac release, and established a roadmap for further improvements in subsequent releases. The close partnership and communication with the accessibility team in the early stages of the project were critical to the overall success.

Another dynamic that helped overcome some accessibility and usability challenges was the team's focus on developing a native Mac application that closely observed the look, feel, and behavior paradigms on the Mac platform. They adopted and leveraged native user interface (UI) controls and elements, designing custom elements only when it materially enhanced the user experience. This allowed for maximum leverage of the accessible components built in throughout the native OS and optimized the engineering team's delivery of the product under tight deadlines.

Perhaps one of the most critical factors to the product's success was the participation, contribution, and feedback from the internal early adopter community. Roughly 8500 Cisco users played a significant role in building this application with the product team. Specifically around accessibility, the community helped to identify several critical issues that were quickly resolved and validated with the community. Their passion and partnership helped not only achieve accessibility goals, but to deliver a first-class Mac application: a huge win for Cisco and Cisco customers.

Results

Cisco has realized the business value in delivering critical accessibility enhancements through focusing on actual internal user experience and common use cases through segmented planning. Now, regardless of ability or disability, users can collaborate more securely and effectively from anywhere with colleagues, business partners, and customers using Cisco Jabber for Mac. (Figure 1)

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community to create something beyond everyone's expectations," says Cisco Mobility and Mac Group's Director of Engineering, M. Michael Acosta.

Figure 1

Next Steps

In addition to accessibility compliance through keyboard navigation, the product also met accessibility design requirements for low-vision users. The Cisco Jabber for Mac team is currently building a roadmap for future additional accessibility support requirements. Looking forward, the team's next objective is to address accessibility compatibility with VoiceOver, the text-to-speech functionality on the Mac OS.

"From the start, the Cisco Jabber for Mac product team placed a very strong emphasis on accessibility, because we wanted to deliver the best user experience and make the information in our product accessible to any user. Our success story is the culmination of a number of elements: the product team's focus on leveraging common operating system user experience paradigms; the strong partnership and collaboration between the product team and Accessibility Technical Lead, Kent Boucher, in ensuring the top priority requirements were implemented in the product; all the work by the engineering team to bring these requirements to fruition; and our incredible early adopter user base, who are invariably passionate about providing us with feedback and enabling us to improve our product," says Rena Chhit, Product Manager, Cisco Jabber for Mac.

For More Information

- For more information on Accessibility at Cisco, visit: http://www.cisco.com/go/accessibility/ or email us at accessibility@cisco.com.

- For more information on Cisco Jabber for Mac, visit: http://www.cisco.com/en/US/products/ps11764/index.html.