

Case Study

Improving the Mobile User Experience for Healthcare Customers



RTS Labs reengineered a modern mobile experience that created an improved mobile experience for healthcare customers.

Company:

Healthcare Technology Firm

Challenge:

- Legacy product was sluggish, confusing, and outdated
- Legacy app had customizations that creating a non-standard user experience
- Back-end API for the app didn't fit with the Client's Microsoft/.NET infrastructure

Solution:

- Full stack review of application architecture and provided recommendations for improvements
- Overhaul of legacy application's user interface
- Established a rigorous QA process before relaunching the app

Results:

- New app exceeded expectations of client
- Entire project was delivered on time and on budget
- Client has engaged RTS on other projects

A local health care technology company came to RTS looking for help in overhauling its existing mobile application. Originally built to support cross-platform deployments and configurable feature sets, the app lacked a clear design focus, leading to performance issues and usability challenges. The Client wanted to build a new app that retained the functionality of the original, but with a modern feel and user experience. With these goals in mind, RTS engaged the Client to create the ultimate experience for their customers.

The Challenge

- The legacy product was saddled with sluggish performance, confusing navigation, and outdated aesthetics.
- The new app needed to retain the data-driven UI features and multiple deployment target requirements.
- The UI in the legacy app used custom implementations and non-standard user experience paradigms.
- The legacy app was built on an early version of the Javascript-based Sencha Touch framework, with which RTS had no firsthand experience.
- The back-end LAMP1 stack API for the app didn't fit with the rest of the Client's Microsoft/.NET infrastructure.

The Solution

Architecture Review

RTS performed a full stack review of the application architecture currently in place. Although delivering required functionality was the top priority, the analysis also had to consider the Client's existing software

catalog, with an eye towards future maintainability.

For the front-end Sencha Touch app, three modernization options were considered:

1. Upgrade to the latest Sencha Touch version
2. Alternative multi-platform frameworks such as jQuery Mobile and Appcelerator Titanium
3. Native mobile development for iOS and Android

Of these, RTS worked with the Client to determine that an upgrade to the latest Sencha Touch version, coupled with major visual and code refactoring efforts, made the most sense. The back-end API was also evaluated for modernization opportunities, but RTS decided that it would be in the Client's best interest to focus initially on the user facing experience, with potential API optimizations to follow.

User Experience

With clear technical and functional scopes in mind, RTS's next step was to focus on the app's user experience. In-house RTS design and UX staff overhauled the app's interface, focusing on presenting a directed and clean experience. Drawing on the latest design trends and best practices, they settled on a flat, iOS 7-inspired aesthetic.

Another major improvement RTS introduced was a sliding side navigation panel, which provided users with a consistent navigation experience from anywhere in the app. To ensure the Client had ample opportunity to provide input, RTS presented wireframes to the Client for iterative feedback throughout the entire design process.

Development and Testing

RTS engineers worked with designers to implement the new visual appearance and user experience, while simultaneously working on the Sencha Touch version upgrade. In addition, they overhauled the Javascript codebase to conform to the industry-standard MVC architectural style. Despite no previous experience with the Sencha framework, RTS's engineers quickly became productive in the environment and delivered a product with substantially improved code quality and structure.

RTS kept in touch with the Client throughout the development process, providing weekly status updates and soliciting feedback on new user flows and visual elements. RTS collaborated on-site with the Client's IT staff to coordinate deployment to their existing Development and QA environments, and while doing so, helped to better document the process for the Client.

Following the completion of each iterative development effort, RTS QA rigorously tested new features and checked for regression defects. After the app passed QA, it was delivered to the Client for their own testing, based on previously documented test flows. The RTS development team worked closely with the Client's testing group to fix issues, clarify changes, and ensure that the testing specifications were properly updated.

RTS used the Client's Fogbugz bug and feature tracking software to successfully manage the entire QA process.

The Result

The final product RTS delivered to the Client exceeded their expectations in terms of performance, visual design, and user experience, all within budget and on time. RTS integrated with the Client's internal ops team to assist with native packaging and deployment of the app, thereby ensuring that the Client had the support it needed during every step of the project. RTS has since been selected to work on several other projects for the Client, and looks forward to delivering high value through this partnership.

How can RTS Labs help you?