Building a Competitive Mobile App in React Native

Challenge

In the course of our work with a not-for-profit organization in the power and electric sector, we initiated an additional project aligned with their desire to create a mobile application that would alert their customer base of more than 18 million members across 23 states to changes in the delivery of power due to the impacts of storms and severe weather. The organization did not have the in-house expertise to architect, construct, and roll out a mobile application from scratch with all the features they wanted. They were familiar with INSPYR Solutions' capabilities in the areas of Mobile and Application Services, and as a trusted solutions partner, so they engaged our team for this initiative.
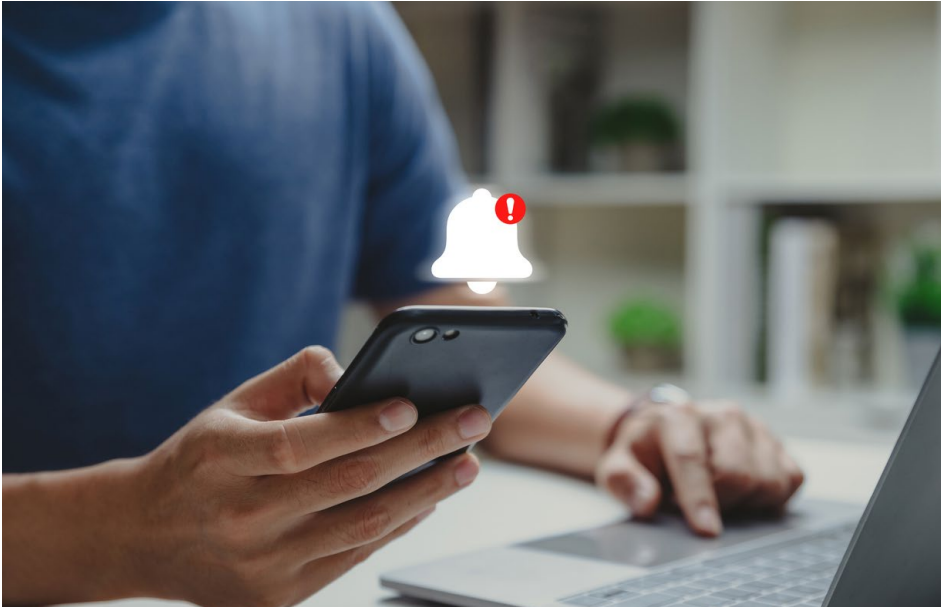
Solution

The organization had a list of required features for the initial version of the mobile application, so INSPYR Solutions deployed the right subject matter experts to create the app via several phases.

Phase I: Proof of Concept & Notifications

The first phase took about six weeks and began with a proof of concept to demonstrate the app's functionality and concentrate on testing, followed by a management website to enable sending notifications.

Our Application Developer created the mobile app in React Native and then deployed it to both the iOS and Android stores. The Phase I version was primarily focused around setting up the ability to send out various notifications such as warnings,

The app allows the organization to keep 18+ million members across 23 states informed of changes to their power.

emergency messages, notices about power outages, and other informational messages that would pop up as phone notifications via the app. Opening the app allowed a user to see all notifications received. This was a primary need for the app, with additional functionality planned to follow.

Phase II: Expanding Capabilities

The next part of the project centered around expanding the app's capabilities and making more data accessible to users, so INSPYR Solutions deployed an Application Developer and Lead Application Architect to handle the updates. This was achieved through tapping into various types of data feeds and recreating those visualizations on the mobile app. This would allow users to access graphs, charts, and other important data visualizations about outages, surges, price spikes, and other data conveniently from their

phones. This also included a map of the organization's service region with pins showing live information on areas where events had occurred.

The challenge with this portion of the project was that the client had a few different kinds of data sources including a traditional API, but they also had a few other sources that required pulling data from files before creating graphs. This work was more sophisticated, and, in some cases, the requirement was to manage very large amounts of data. Our team worked to create a system that could handle the variety of feeds as well as large data sets to display the correct visualizations.

Features included in this phase consisted of quality-of-life improvements for users such as: the implementation of dark mode, and the ability to view news from the organization's website. This would make the app easier to use and

provide even greater insight into the organization's work.

Phase III: Enhancing the Experience

Following these improvements, our Application Developer concentrated on building out user account functionality and user interactions for an enhanced experience. We added the ability to create custom dashboards, so users view specific items or news pertinent to their interests, receive only the notifications they want, subscribe to focused feeds, and other quality of life improvements.

We also added the ability to for the organization to publish information on upcoming events such as hearings, educational sessions, or community events people may want to attend. These features made it easier for the organization's team to interact with the community and created a more user-friendly app experience with even more to offer beyond data visualization. Future development may include more advanced features such as data capture, bill pay, and more user account customization.

Outcome

The INSPYR Solutions team created the mobile application to the organization's specifications and continued to add requested features as we moved forward through additional phases. We built trust with the organization's team by demonstrating our high-quality services and providing a highly secure experience in line with the client's expectations.

By creating the mobile app in React Native, our team saved the client both time and money because this was an efficient way to build one app that could be deployed to both the iOS and Android environments. Now that they had a functional app, the organization could send notifications to key stakeholders such as clients, regulatory agencies, and others affected by changes within the energy industry.

The team also had the ability to share important data through the convenient mobile app, making it much easier to communicate with the public. These features allowed the organization to stay competitive with other organizations and companies in the industry and set them on the cutting-edge of technology. We continue to work with this client and have plans for additional features for their mobile app to expand its capabilities.

Client Profile

A not-for-profit organization that works to ensure reliable power supplies and transmission infrastructure to consumers within its service region. The organization is known for working to provide competitive pricing to those it serves and is expanding the area they serve while also working together with similar organizations in other areas of the country.

Technologies Supported

iOS, Android, React, React Native, Next.js, Native Notify, Next-Auth, Jest, Tailwind, Expo

About INSPYR Solutions

Technology is our focus and quality is our commitment. As a leading expert in delivering flexible technology and talent solutions, we strategically align industry and technical expertise with our clients' business objectives and cultural needs. Our tailored offerings include a wide variety of professional services, project solutions, managed services, and talent resources, all bolstered by our strategic partnerships with cutting-edge technology services. By always striving for excellence and focusing on the human aspect of our business, we work seamlessly with our talent and clients to match the right solutions to the right opportunities. Learn more about us at www.inspyrsolutions.com.