

# Rebuilding a Healthcare Facilities Management App & Establishing New Development Standards

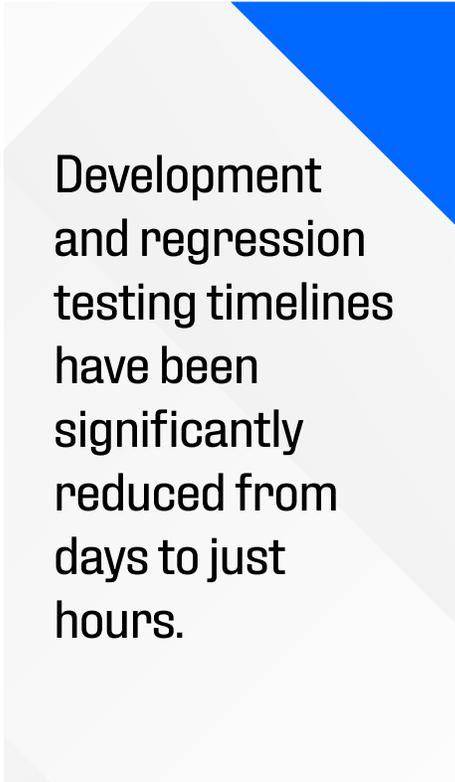
## Challenge

A company that provides healthcare facilities management services nationwide offers its users a mobile application designed to manage janitorial tasks throughout healthcare systems and at individual hospitals, senior communities, and a variety of other facilities.

Typically, the application was installed on an iPad mounted on a janitorial cart and facilities management team members would receive daily tasks through the app. They would then note when each task was completed or report any issues preventing completion. The dispatcher could monitor progress in real time and assign new tasks via a management console.

When the time came for the app to be refined and updated, the vendor the company had been using to develop the app began to exhibit several issues:

- **Development turnaround time** had become lengthy.
- **Output quality was poor** and frequently required **additional fixes**.
- **Delays** caused by these complications had **hurt the company's reputation**.
- The app was having **stability issues** and users were encountering **critical problems**.
- A **backlog** of fixes and updates began to accumulate.
- The app was **not scalable** due to these numerous problems.



Development and regression testing timelines have been significantly reduced from days to just hours.

## Solution

The company needed an affordable, reliable solution to their development problems, so they sought out INSPYR Solutions as a trusted technology partner. We applied our expertise to the problem through a managed services application development project, allowing the client to take advantage of our industry experience. In addition, the INSPYR Solutions team was responsible for bringing their internal team up to speed with the aim to eventually have some of the client team take on leadership roles to manage and maintain the app.

INSPYR Solutions introduced a global application development team that operated under the follow-the-sun methodology, permitting work to continue across all time zones. This blended global and U.S.-led team encompassed deep expertise in API development, architecture, back-end development, native iOS and Android development, as well as SDET.

The operational environment presented unique technical challenges that required specialized solutions. Because there are areas within some healthcare facilities with unreliable Wi-Fi connectivity, the client's application had to be able to work offline and sync data once connectivity was restored.

To accommodate these requirements and other development work the app required, we implemented several solutions:

- Introduced a U.S.-led **global team** for **follow-the-sun** for development.

- Utilized **automation** and new processes to **accelerate delivery** and **ensure quality**.
- Updated the system architecture to **stabilize** the app.
- Future-proofed the app by developing for **scalability** and **future updates**.
- Made updates that allow for **occasionally connected functionality**.
- Laid the groundwork for client team members to take on **leadership roles**.

## Outcome

INSPYR Solutions not only met but exceeded the client's expectations for improving their existing facilities management application. The changes we implemented led to significant operational improvements across the board.

By introducing a global application development team, work could continue around the clock. This

accelerated the client's development timeline and made it possible to work through the backlog of feature requests and bug reports, allowing the client to address new customer requests in record time. Meanwhile, our expertise ensured that each update and additional feature request would be handled quickly, efficiently, and correctly.

Key outcomes of the project include:

- **Enhanced quality and efficiency:** Development and regression testing timelines have been significantly reduced from days to just hours through automation and a follow-the-sun approach while maintaining high quality standards.
- **Cleared backlog:** We cleared the client's backlog of bug reports and feature requests, paving the way for new feature updates and the development of additional applications while keeping up with user requests/reports.



- **Accelerated agility:** The resulting high-performing, dedicated team can address issues and continue development across all time zones. As desired, the client has also been able to identify emerging leaders capable of taking on additional responsibilities.
- **Improved app functionality:** The janitorial app is now stable and works as intended. It is capable of occasionally connected functionality through leveraging local storage in areas with poor Wi-Fi reception and syncing data upon reconnection. The dispatcher functionality has also been improved, resulting in a real-time management console that enables dispatchers to monitor task status, send new assignments, and address issues immediately.
- **Scalability:** The app can now serve as the foundation for future updates to services as the client needs them. The client is also now capable of developing new apps to better serve evolving customer needs.
- **Reputation:** The client's reputation has been restored now that updates, fixes, and new features are rolling out in a timely manner.

## Client Profile

The client provides dietary services and facilities management to healthcare systems nationwide. It is always the company's goal to make

each guest's stay more comfortable through the use of innovative technology and excellent customer service, and to provide healthcare industry customers with the tools they need to serve their patients.

## Technologies Supported

### Front-end:

- GitHub
- React
- Redux Saga
- Storybook
- Styled Components

### iOS:

- Swift

### Back-end:

- AWS
- Java
- JUnit
- Liquibase
- Mockito
- Springboot

### Android:

- Kotlin

## About INSPYR Solutions

Technology is our focus and quality is our commitment. As a national expert in delivering flexible technology and talent solutions, we strategically align industry and technical expertise with our clients' business objectives and cultural needs. Our solutions are tailored to each client and include a wide variety of professional services, project, and talent solutions. 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 [inspyrsolutions.com](https://inspyrsolutions.com).

