



CASE STUDY

MOBILE APPLICATION MIGRATION FROM NATIVE TO REACT NATIVE WITH MODULAR AND INTUITIVE ARCHITECTURE

Architecture transformation improves cost efficiency and accelerates time-to-market

Client Background

Our client is a data-enabled cognitive automation platform provider for operating a self-driving enterprise. Using proprietary data crawling, industry models, machine learning and artificial intelligence – the client is revolutionizing how business users relate to data and how organizations function. The client wanted a shift in customer user experience from transactional automation to cognitive automation. To build a robust solution, most of their web applications moved to the React framework. Considering the time to market efficiency and maintainability for mobile applications, the team initiated React Native platform migration.

Key objectives of the client included:

- Demonstrate the pros and cons of mobile hybrid platforms with the technical aspect
- Define a seamless approach to migrate native iOS and Android mobile application to React Native
- Define high-level architecture for mobile application
- Continue the upgradation process to support customer requested feature
- Introduce an agile scale methodology and code review process for quality deliverables
- Execute QA testing process for both platform-specific application available on store and migration build simultaneously

KEY BENEFITS

- Improved cost and time efficiency by 40% with React Native migration
- Reduced learning curve for the client's resources, resulting in faster productivity
- Improved time-to-market with a single code base solution as feature business logic build at one place but used across the platforms
- Ensured better acceptance and decision-maker buy-in from sales perspective using contemporary user experience
- Boosted performance, reliability, stability and achieved easy maintainability with the use of latest React Native technology

Xoriant Solution | Key Contributions

Xoriant analyzed and designed the mobile application architecture for complex web modules with an additional feature to fulfil business use cases and increase the penetration of the application usage. The client's mobile application build with native platforms was published on Android and iOS stores. To optimize the software development process across platforms, minimize maintenance costs, Xoriant recommended existing application migration to React Native. Our team actively contributed to the approach, architecture, considering store application upgradation. We published React Native migration build on both Android and iOS store besides successfully adding new features. Our key contributions for the client included:

React Native Mobile Development

- Provision of a migration plan and architecture to provide optimal solution considering business use case and goals.
- Designed a mobile application with Redux architecture and integrated solution.
- Defined design and code patterns to build React Native application solution with useful coding guidelines.
- Defined the project code base structure to handle a single code base for different platforms - iOS and Android.
- Build all native application features in React Native application with similar UI-UX and make it consistent with the native application.
- Developed native application complex modules like voice search which depends on platform-specific frameworks in React Native.
- Developed custom component in React Native to reduce third party libraries dependencies.
- Supported analytics reports with 80+ charts support like the native application.
- Supported dynamic UI rendering on mobile for web skills.
- Supported new cognitive workbench features in React Native migration build to recommend user in different business subject areas.

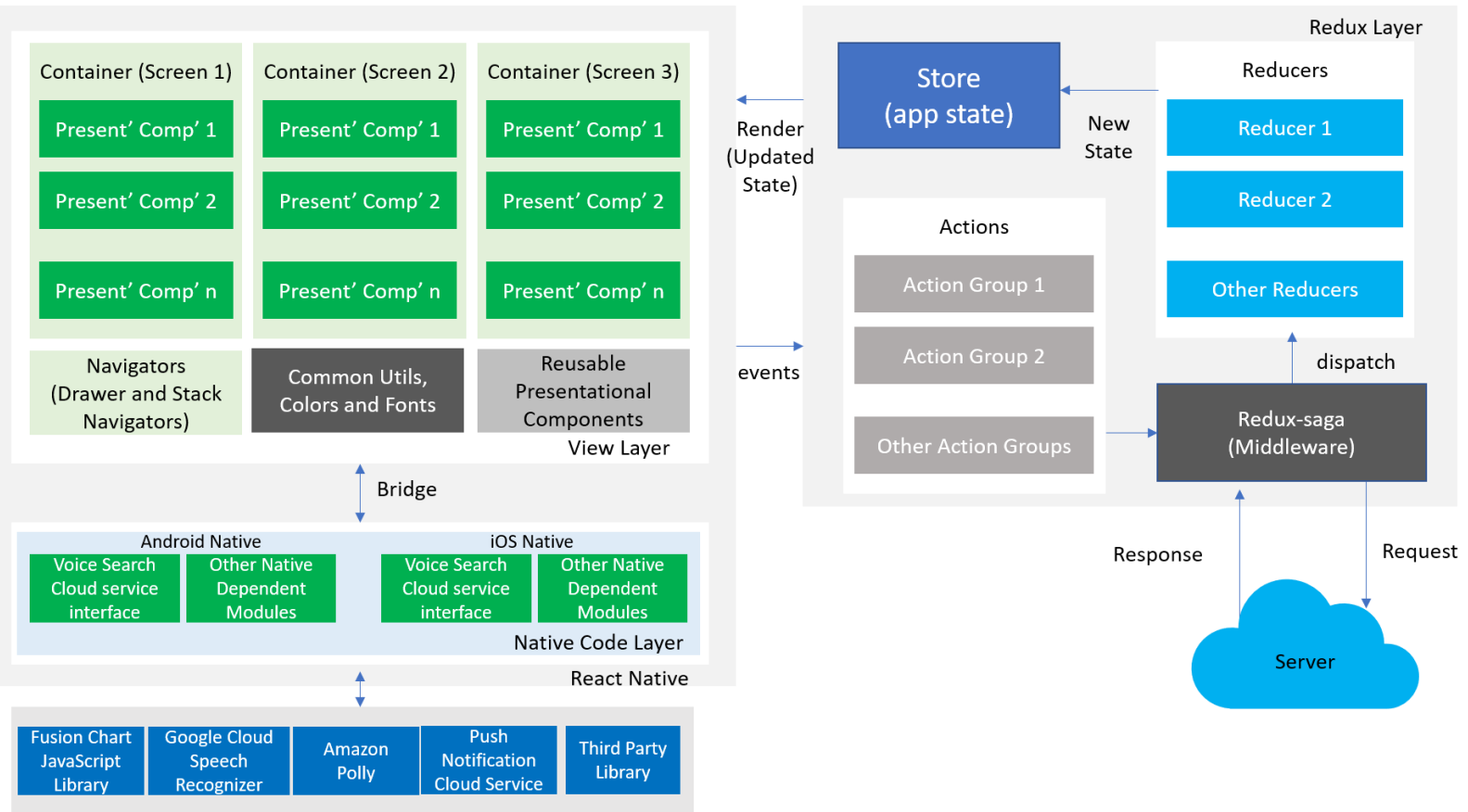
Client Testimonial



Xoriant helped in the seamless end-to-end application migration from React to React Native with minimum disruption to business continuity and achieved enhanced customer experience.



Architecture Diagram



Technology Stack

Android – Studio & Java | iOS – Xcode, Swift | Google Cloud Speech Recognizer | Google Cloud Translator | Amazon Polly Service | Rest APIs | SQLite | Fusion Chart JavaScript Library
 React Native Framework | 3rd Party Open Source libraries



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