

Faster Migration from Salesforce Aura to LWC through Reusable Shared Libraries and Speedy Testing with QA Automation

Customer Overview

The customer is a Salesforce Platinum Partner (System Integration) for Experience Cloud, serving Salesforce customers across several industries. The customer has their own library of reusable components and applications which accelerate digital transformation.

The Context

The customer had a large suite of 50+ pre-built Salesforce applications/components developed using the Aura framework. They wanted to:

- Migrate these applications to Lightning Web Components (LWC) to leverage the significant benefits it offers as compared to Aura - such as faster loading of components, enhanced security, and support for advanced browser technologies like CSS3 and HTML5. Salesforce also recommends LWC and routinely releases advanced features based on it
- Unify the look and feel and enhance the performance of all their applications to deliver better user experience
- Resolve the challenges in repeated manual regression testing of all 50+ (and growing) applications every time there is a Salesforce release (thrice a year) - done to ensure there is no release impact

Type of Service Provided

Application Development and Enhancements

Technologies Used

Salesforce Platform, Experience Cloud, Lightning Web Components (LWC)

The Solution

With extensive product engineering expertise, the GS Lab | GAVS team created a shared library of LWC wrapper components which were then used to develop LWC applications to replace the existing Aura applications. The latest LWC features were leveraged, additional performance enhancements were made, and the UI design was unified across components.

The GS Lab | GAVS automation team developed QA automation for all applications which helped immensely while testing application enhancements and while doing regression testing for each Salesforce release.

Challenges

- Time consuming to develop applications from scratch since there were no reusable components
- Absence of similar look and feel across applications
- Monotonous and laborious manual regression testing of 50+ applications
- Repeated regression testing every 3-4 months after each Salesforce release
- Need for increased allocation of QA bandwidth with increase in no. of applications
- Delays in testing and release of new features and applications

Solution Highlights

- Implementation of library of configurable and reusable standalone components
- Migration of 50+ applications from Aura to LWC
- Automated regression testing of applications

Solution Impact

- 80% reduction in manual QA effort and 50% reduction in overall QA effort through automation
- Enhanced user experience and efficiency due to high application performance and uniform look and feel
- Reduced effort in code development and maintenance due to shared library approach
- Increased code reusability