

Scaling quality across borders and business models

Test automation for a multi-region
Salesforce transformation



Qualitia | Qlik

Stretched thin by scale and system complexity

Qlik Tech has implemented Salesforce Revenue Cloud for AMER, EMEA and APAC regions. This implementation helps them create Quotes for over 16 products, across the three regions, for three revenue types, with around five operations on the quotes generated in the quote creation process. The user journey is integrated across three different systems outside of Salesforce, Eg, NetSuite, DocuSign and Revnera.

Given this scale of implementation, the Qlik in-house team had built automation to speed up testing. However, their existing testing methodology was a mix of API-based and manual testing, which was inefficient for the reasons below.

A

The testing approach skipped crucial UI steps needed to complete the End-to-end flow.

B

It couldn't perform critical UI validations, leaving undetected defects that would leak out to production.

C

Needed manual intervention for successful testing.

D

Additionally, the project demanded validation of 916 SKUS across 18 countries, testing complex product selection, configuration flows, and shadow root elements, which weren't part of their automation. These validations had to be executed more than thrice each year; manually doing this would take approximately 2 to 3 months.

This is when Qlik decided to onboard Qualitia Boson as a test automation solution.

Building for coverage, speed, and control

To address the limitations of its fragmented testing approach, Qlik set out to build a robust, scalable automation solution. The team defined clear goals to drive coverage, speed, and reliability across all critical test journeys:



01

Ensure 100% automated end-to-end testing of all the journeys through UI, including external system integrations

Develop a UI automation framework to handle complex data combinations

02



03

100% test coverage by adding data combinations and eliminating manual interventions



Reduce test execution time from 2 months for manual to less than 24 hours

04



05

Reduce maintenance overhead with reusable components and parallel test execution



Simplifying complexity through intelligent automation

To address these challenges, QlikTech partnered with Qualitia to implement a robust test automation solution using Qualitia Boson. The solution was designed to automate end-to-end testing across Salesforce, DocuSign, NetSuite, Reverera, and more.

Key elements of the solution included:



One-click test generation and maintenance

Qualitia Boson's core feature enabled rapid creation and upkeep of automated scripts by learning objects directly from Salesforce.



Auto-heal feature

Smart locators allowed web objects to auto-heal during runtime in case of locator value changes, improving stability during frequent UI updates.



End-to-end testing with one script

A single test case was developed to cover the entire workflow, from Salesforce to Gmail, DocuSign, PDF validation, and integrations with NetSuite and Reverera, reducing the need for multiple separate test cases.



Maximum reusability

Qualitia Boson enabled the creation of reusable components, called Tasks, which were implemented across 55+ test cases. This drastically reduced maintenance effort, as changes in one task were reflected across all related test cases.



Data-driven approach for 90%+ coverage

The automation framework allowed extensive data-driven testing across regions (APAC, EMEA, AMER) and products. A single test case could cover multiple regions, reducing the effort required to create distinct test cases for each scenario.



Business impact delivered

100%

Test automation coverage

75%

Reduce testing time from hours to minutes

24+

Critical defects identified

75%

Significant changes were adopted in 3–4 hours, minor ones in just 20 minutes

01

Comprehensive testing

Over 23 scenarios were executed with multiple region combinations and product variations, providing 100% test coverage within the journeys taken up for automation. With Qualitia Boson, the testing is entirely UI based, thereby eliminating the challenges of the earlier API based in house approach and increasing test coverage. With automation in place, we are able to run around 138 combinations covering two products, across three geographical regions.

02

Reduced testing time

Automated testing, coupled with parallel execution, reduced the turnaround time for regression testing to under 6 hours, from 3 person days when done manually.

03

Early defect detection

Automation identified 24+ critical defects during implementation, improving overall product quality and reducing the risk of production issues.

04

Faster change adoption

Qualitia Boson's feature of highlighting changes, coupled with superior test automation design, allowed quick adoption of new updates, minimising disruptions during environment refreshes. On average, a significant change could be adopted within 3 to 4 hours, while a minor change took approximately 20 minutes.

05

Streamlined reporting

Automated reporting provided stakeholders with detailed insights, based on analysis from regression runs, facilitating informed decision-making.



Qlik's perspective on the transformation

Sean Karshis, Director of IT Shared Services at Qlik, highlighted how Qualitia Boson was instrumental in achieving the project's objectives. Its capabilities helped Qlik accelerate testing and identify defects that manual testing or API-based approaches might have missed.



Awesome QA Automation

This is going to change the way we maintain quality. It's self-healing, easy to build new scripts, and Qualitia's support is outstanding. Of particular note is their ability to make the inevitable shadow DOM object changes a `_non-issue_` for our QA Automation team. Highly recommended.

–Sean Karshis,
Director of IT shared services, Qlik

*source – Salesforce App Exchange

Conclusion:

By leveraging Qualitia Boson, QlikTech drastically reduced manual testing time while improving test coverage and defect detection. Critical business processes involving 916 SKUs and complex region-wise data were automated, reducing what would have taken months of manual testing into just a few hours. The project demonstrated how Qualitia Boson can help businesses navigate complex testing challenges quickly and precisely.

