



Accelerated time-to-market with end-to-end testing solutions for a global financial group

Saved time and resource by sharing resource between projects

About The Customer

Our customer provides equity and fixed income management services for large corporations, small businesses and individuals. Our customer grants investors access to a skillful, knowledge-driven, and highly credible team of investment professionals with proven performance management capabilities.



Challenges:

- *Faced issues while digitizing the manual process*
- *Complex product features with no support document*
- *Huge set of functionalities to be tested within a short release cycle*
- *Multiple integrated systems to be tested*
- *Testing across web and mobile platforms*
- *Localization testing across English and Thai language*
- *Complex features such as OTP*
- *String need for testing functional and non-functional aspects.*

The Need

Our customer handled all individual investment advisory through manual processes. To be relevant in the market and to attract millennials, the company undertook a digitization process that would automate the investment advisory to their customers through their web and mobile platforms. The key success criteria included

- a. High quality product
- b. On time release
- c. High performance system
- d. Secured product
- e. Seamless user experience across all platforms





Solution:

- *Provided End-to-End testing solutions*
- *Pairwise testing technique, test automation*
- *Sprint+1 approach*
- *AI enabled reporting system*
- *Integrated performance test and security test*
- *Used Trello and Jira*

Results:

- *Test pack optimized from 6000 to 2000 tests*
- *Logged over 1500 defects*
- *Saved \$500,000 through automation*
- *Zero defect leakage in production*
- *Saved 70 days of manual effort*
- *Saved huge cost of running a manual investment advisory function*
- *Seamless coordination*

Aspire's Solution

Aspire understood the customer expectations and formulated an end to end test strategy that focused on process, technology and people.

Process:

- » Shift left approach to testing – Test early, test all layers
- » Managed the test processes using Test Link – open source tool
- » Sprint + 1 approach to support agile sprint delivery – Manual testing for new features while automated tests for regression
- » End to end traceability of requirements, test cases, test scripts and defects to ensure complete test coverage
- » Usage of pairwise algorithm to reduce the test combinations while retaining effective coverage
- » "Follow the Data" model to test the end to end integration of the applications



**Technology:**

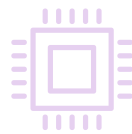
- » Test automation pack to support smoke and regression testing that reduced the initial feedback time to 30 minutes within deployment time
- » Usage of open source technologies to reduce the tools & licenses cost to a minimum
- » Used highly reusable automation coding techniques such as Page Object Model to speed up the test script creation time
- » Integrated OWASP ZAP and JMeter to the automation framework to enable early testing of non-functional requirements throughout the release cycle
- » Scalable test scripts integrated to Jenkins for CI/CD
- » AI enabled reporting to cut down test result analysis time by 90%
- » Ran tests in parallel in SauceLabs across different browser combinations and mobile platforms (iOS and Android) to cut down the regression cycle time that resulted in over \$500,000 in effort savings

People:

- » Team comprised of domain experts and technical experts to handle business level and technical challenges
- » Domain testers helped bridge the gap in product knowledge since the customer did not have any product documentation
- » The automation engineers were SDETs who performed multiple roles as that of test automation engineers, performance testers and security testing engineers thereby saving a lot of cost to customer
- » Onboarded expert Thai native speaker to test the localization of the application under test
- » Onsite/offshore model initially to kick start the project and then continued on an offshore only model



Technology Snapshot



Java, JavaScript, React JS, React Native

Tools :

- » Eclipse
- » Selenium Java
- » Jmeter
- » OWASP ZAP
- » Test Link
- » Jira
- » Bitbucket

Platform:

- » Windows
- » iOS
- » Android

Customer Feedback:

Hi Aspire team - We are officially live in Thailand! Thank you so much for all the support and late hours! Congratulations to the team who has always met our expectation in delivery and quality releases. "

- *Director – Digital Transformation*

"Dear Aspire team

Let me share my sincere appreciation to each of you whom did a great job in testing. It's a very high quality work and I'm looking forward to have you as our partner in future releases and projects"

- *Chief Operating Officer*



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