

# Accelerated Time-to-Market for a leading Financial Technology Solutions Provider through Test Automation

## Executive Summary

The client's product is a complete trading platform which enables its customers to execute, manage, and administer trades of multiple products on multiple exchanges. The new version required regression testing, which was partially manually tested. ZenSOFT leveraged its expertise on test automation to help the client reduce time-to-market and costs on manual testing with improved test coverage.

## The client

The client is a subsidiary of the world's third largest stock exchange. With its headquarters in Mumbai and offices in other metros of India, the client has its presence in North America and United Kingdom as well. The client offers comprehensive technology solutions and services designed to address the mission critical needs of the financial services domain.

## Business Case

The product over a period of years saw customizations specific to customers, multiple enhancements, and periodic patch cycles. These continuous build releases resulted in non-interoperability between newly developed modules and older modules due to non execution of recurrent testing. This caused the reduction in quality of the product due to unattended bugs. Therefore to retain its market leadership; the client had proactively decided to deploy test automation to enhance quality levels by continuous testing and improved test coverage. The client approached ZenSOFT to build and conduct test automation for the product before the release of its next version.

## Challenges

- ❶ Customizations done in .NET framework lead to a technically challenging task of test automation
- ❷ Dependence on availability of live data feed into the system to perform functional testing
- ❸ Minimal intrusion into development lifecycle to ensure faster time-to-market
- ❹ Ensuring that test automation design accommodates the changes in the enhancements and customization cycles with minimal effort and impact on existing test cases

## Solution

ZenSOFT appointed a team of test automation experts and a test automation architect to successfully design and deploy test automation. The team identified the functional points for each module, which were then converted into test scenarios thereby ensuring endpoint traceability. These test situations for predictable behavior were automated using Rational Functional tester. ZenSOFT team completed the regression testing by incorporating Object Oriented keyword and data driven automation framework using Rational Functional tester.

## Technology

Following Automation tools were covered during the training

- .NET framework 1.1
- SQL
- IBM Rational Functional Tester
- IBM Rational ClearCase
- Microsoft Office

## Business Benefits

Besides reducing the test execution time by 98%, the client was also able to:

- Enhance quality levels and improve team productivity
- Increase the speed to change and update existing automated test cases by 300%
- Leverage capabilities of an RDBMS to make the automation design more robust, scalable, and easily maintainable
- Automate 8800 out of 28500 test cases within 4 calendar months
- Achieve 80% test coverage and 200% increase in ROI across two major releases spanning over 3 quarters

“ZenSOFT Services Pvt. Ltd. has helped us optimize our testing efforts by automating our manual functional testing activities. The technology used by them to automate was one of the best in the market and they developed an innovative and scalable framework, which significantly reduced the effort on script and code maintenance. It also helped to accomplish good amount of test automation. This is a significant development for us as our application is business critical and operates under real time, needing 100% reliability as well as very quick turnaround Time.

To manually perform a regression test, the manual team otherwise would have required running almost 25000 test cases taking up lot of man power and an equally higher regression cycle time. This automation exercise has resulted into 100% coverage leading to better accuracy of regression testing. It has also reduced the regression cycle time considerably.

ZenSOFT Services Pvt. Ltd. and our internal resources have worked as a team throughout the project execution, thus ensuring project transition a very smooth affair.

I like the professionalism, convenience, and ease of doing business with ZenSOFT Services Pvt. Ltd. They offer sound advice and good suggestions in their area of expertise. Their service has been excellent and response time great.

We have been extremely pleased with their services and quality of work.

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## About ZenSOFT

ZenSOFT is a team of consultants in the field of Software Testing, Software Change & Configuration Management and Enterprise Systems Management. At ZenSOFT, our vision is to be the trusted value partner for companies across the globe and through continuous business process excellence we strive to provide better and efficient services to our customers. Our endeavor is to help our customers deliver unsurpassed products and services to their clients and ultimately, maximize their core business. Please visit [www.zensoftservices.com](http://www.zensoftservices.com) to know more about us.