



# Mindtree

*Welcome to possible*

## Advanced trading platform through comprehensive testing for a leading Indian stock exchange.

In the twenty first century, a dependable trading platform is at the very core of any stock exchange. A single error or failure can potentially bring operations to a halt, resulting in tremendous loss of revenue and reputation.

Here is how Mindtree helped a global top-ten stock exchange thoroughly test its new trading platform to deliver greater reliability and superior performance.

### The challenge

The customer, a leading Indian stock exchange with thousands of terminals, wanted to institute a rapid and sustainable testing solution. The objective was to achieve greater reliability, compliance and preparedness for future upgrades in its next-generation trading platform.

Its existing trading system had been designed to meet strict business requirements and process large volumes of transactions with excellent uptime and responsiveness. However, without a rigorous testing solution in place, it faced several challenges.

- There was no formal testing process for the changes made to trading applications in line with changing user requirements and regulatory norms
- Few sub systems were engineered to meet performance and scalability requirements
- The customer's existing team of business analysts and domain experts did not have the adequate bandwidth for testing
- The customer was unaware of the various situations to be tested before deployment in production
- Trading applications had been developed in multiple vendors' environments and across multiple platforms, resulting in several technical errors and defects during implementation
- There was significant dissatisfaction amongst user community with respect to quality of new and existing products

### Business impact

- Timely launch of new products and features with greatly reduced chances of defects
- Performance gains through rigorous testing and application fine tuning
- Test effort optimization through proven methodologies, standard test case library & proprietary tools
- Higher system availability leading to greater customer satisfaction
- Improved quality assurance process



## Our solution

Mindtree worked with the customer to leverage proven testing methodologies alongside our proprietary asset MindTest™ to deliver the best quality in the least amount of time. The scope of testing included:

- Functional & database testing
- Recovery & fault tolerance testing
- Interface & protocol (FIX) testing
- Batch testing
- Usability & browser compatibility testing
- Security & performance testing

Together, we identified hidden defects at an earlier stage of development through code walkthroughs and developed tools and utilities for test data generation and verification of results. We also created a test case repository for testing integrated and reengineered products, reducing testing time.

Mindtree supported application demonstrations and mock testing prior to actual production release. To reduce time and effort, we leveraged automation functionality of the Mindtree HTAF (Hybrid Test Automation Framework). We also used our proprietary performance framework to benchmark clearing and Web applications.



## Customer feedback

'With the going live of the new trading engine, we are geared up for the challenges of the coming years. This of course would not have been possible without the painstaking efforts put in by the entire Mindtree team and patiently going through multiple rounds of testing. The commitment & dedication displayed by your team members in all phases of project is commendable'.

Associate Vice President, Leading Indian stock exchange.

## About Mindtree

Mindtree is a global information technology solutions company with revenues of over USD 400 million. Our team of 11,500+ experts engineer meaningful technology solutions to help businesses and societies flourish. We enable our customers achieve competitive advantage through flexible and global delivery models, agile methodologies and expert frameworks.