

Quality assurance for an online financial services application

Highlights

- The client's online application is accessed by millions of users and, given the application's seasonal demand, it was essential that the latest version was defect free and available in time.
- As a pilot project, UST performed end-to-end functionality and regression testing of the application after the initial round of testing by the client.
- UST identified close to 500 additional defects in the online system during its review and well within the deadline of the project.
- The final product did not require patches and received client industry awards once it was released.
- As a result of the success of the project, UST went on to develop a strong relationship with the client and set up an offshore development center in 2007.

Profile

Our client, a Fortune 500 Financial Services company, provides tax, investment, mortgage, accounting and business consulting services and products to millions of customers worldwide.

Business Issue

Since the client's online application is accessed by millions of users it was essential that the application be bug free and compatible with a broad range of browsers and operating systems. Given the application's seasonal demand, the latest version also needed to be fully operational in time for the new season in order to avoid direct revenue loss.

UST Approach

Due to the complexities involved in an online service catering to millions of customers, the application required extensive testing across various business scenarios. UST GlobalSM (UST) was engaged to perform tests on the new application as an initial pilot project after the first round of testing by the client.

UST deployed its proven compatibility testing processes which utilized various tools and check lists to test the compatibility of the online application.

The UST team performed end-to-end functionality and regression testing of the applications developed by our client on different platforms under different browser conditions. UST was also involved in the preparation of a test plan, test cases and test execution for offshore testing on various OS and browser environments.

Some of the activities included:

- Testing the application on different browsers such as Internet Explorer, Netscape, AOL, Firefox, Safari, and Opera.
- Unit testing each custom UI component with various browsers before these components were used by the development team.
- Testing each toolbar and menu item for navigation; ensuring proper format masks are used. All drop-down boxes were checked for relevant sorting.
- Testing that the colors, fonts, and font widths are as specified for the field prompts and displayed text.

Client Quotes

"...they (UST) clearly pursue their work with diligence, and without making any assumptions whatsoever. That's a good thing in a test environment."

"I will definitely use UST services again. They are very professional and hard working."

- Checking the display of defaults and the consistency of 'look-and-feel' in different windows.
- Ensuring that each menu command has an alternative hot key sequence.
- Checking that there are no duplicate hot keys defined on the window.
- Validating the behavior of each control such as: push button, radio button, list box, etc.
- Validating the auto-formatting of controls such as: date, SSN, currency, etc. and confirming that this data is in storage.

The team also introduced a new metrics capturing mechanism and implemented a proper defect tracking and reporting system. Moreover, UST provided additional testware that could be reused by the client in future releases of the integrated product.

As a result of testing the application, UST was able to identify close to 500 additional defects in the online system with 95% of the bugs being functional errors. Of this, 438 bugs were identified in 25 days.

Benefits

As a result of this testing project and the early identification of errors, the production phase for the online application ran smoothly. The final product also did not require additional patches and received industry awards once released.

Apart from enabling the client to deliver a high quality product to its customers, the client was also able to achieve:

- *Faster time-to-market:* UST's testing approach ensured that the project was successfully completed ahead of time and, in turn, provided the client with faster time-to-market in a highly competitive market.
- *Cost Reduction:* The client achieved a significant reduction in testing costs as a result of well-defined and proven processes and leveraging a global sourcing model.