

Corillian Online Reduces the Time and Cost of Ensuring its Payment Systems Meet Functionality and Performance Expectations

Corillian Online, the market-leading provider of highly scalable and secure online banking applications, made a critical business decision to transition one of its retail banking payment solutions from a proprietary technology based system to one based on APIs. This transition would improve competitiveness by increasing the flexibility of its product offering to meet the expanding and diverse needs of its marketplace.

To achieve this goal would require the re-engineering of the company's mainframe retail payment applications. Java J2EE and web services were utilized for the application rewrite. To ensure new applications met functional and reliability requirements, the company initially relied on an in-house web services testing solution, but quickly found it insufficient to create the necessary range and complexity of test scenarios. Functional test cases were time-consuming to create and run. The tool could not effectively verify messages and it was expensive to maintain.

Corillian adopted Parasoft SOAtest to implement a more comprehensive and automated web services testing methodology. Through the use of SOAtest, Corillian completed its application re engineering project on time and delivered new APIs that met the performance and high-availability requirements of online banking. SOAtest has allowed Corillian to increase test coverage to the extent necessary to ensure system functionality and reliability while reducing testing effort by 33%. The automation of test case development and execution saves the company \$190,000 annually in staffing and overhead. SOAtest has reduced the time to deliver new services allowing Corillian to quickly respond to customer needs and maintain its competitive edge.

Challenge

To establish a leadership position in the highly competitive online banking industry, Corillian needed to provide a retail on-line payment solution that ran in heterogeneous computing environments and could easily integrate with existing banking applications.

Corillian began development of Inteliworks, a comprehensive J2EE e-commerce banking solution that provided all the major elements of an on-line payment system including warehousing of payment addresses and account numbers and management of the remittance process. The consumer services portion of Inteliworks needed to communicate with existing banking applications. The company decided to use web services so applications could communicate using industry standard messaging.

Initially, the company developed an in-house tool to test web services. However, the tool required developer support to maintain the test harness and the test cases were too time consuming to create. Also, it was not possible to chain test cases together to simulate transaction lifecycles and the tool could not effectively regression test the functionality of new builds.

The company needed a more automated and repeatable web services testing solution that better verified functionality against requirements and increased the effectiveness of QA's testing efforts.

The Solution

Corillian turned to Parasoft SOAtest as a replacement for its in-house testing tool. With SOAtest the company has been able to quickly extend its test capabilities to provide more complete testing of its web services applications and to establish an automated test methodology that ensures regular test and validation of every service created.

As part of its planning process, Corillian produces well-defined specifications for each new application using WSDL files. SOAtest reads these files and automatically generates test cases that allow Corillian to create comprehensive test suites during development and provide regular and immediate feedback to developers as to whether the service meets specifications.

SOAtest enables testers to easily combine functional test cases together into test scenarios that accurately test the lifecycle of different payment transactions. The ease of creating new functional test cases has allowed the company to create an extensive library of test scenarios that it has used to establish a regression test practice that it runs regularly to verify if new code changes break existing functionality. This regression testing enables early error discovery and repair.

"Parasoft enabled us to deliver on schedule the quality applications our customers require for their online payment solutions. It has reduced the time and cost to deliver new services and allows us to deliver with confidence services that meet customer expectations."

To further automate the testing process, the company has integrated SOAtest into its nightly build process. Test exceptions uncovered in these nightly test runs are automatically reported and routed by e-mail to developers and testers allowing them to quickly identify and resolve those exceptions that are relevant to them.

Instead of only creating and manually executing a limited number of test cases, the QA team can now automatically create and run high coverage functional test suites. This capability allows verification of a broad range of application behavior and provides confidence that applications meet all functional, reliability and security requirements. SOAtest has helped to detect and eliminate all serious errors in new applications.

The benefits

SOAtest has enabled QA testers to easily create comprehensive test suites from product specifications and has reduced the effort to verify the functionality and reliability of new web services by 33%. It has also eliminated the need for a developer to maintain and enhance the company's in-house testing tool. This productivity increase is the equivalent of adding another tester to the company's three person testing team and an additional developer to the development team. With a fully loaded cost of \$80,000 per tester and \$110,000 per developer the annualized overhead savings from SOAtest is approximately \$190,000 per year.

Conclusion

SOAtest has increased development effectiveness by significantly reducing the time and cost to validate new services. The early and regular error feedback developers now receive enables fast resolution of problematic code. Through the use of SOAtest, Corillian saves \$190,000 annually in reduced staffing and overhead. Parasoft has reduced the time required to deliver high quality services that meet all functional and performance requirements. More importantly, Parasoft allows Corillian to ensure its payment systems continually meet customer expectations.

“SOAtest has enabled QA testers to quickly create and run comprehensive high coverage test suites. The early and regular error feedback helps Development improve their code. SOAtest ensures that all new applications meet functional, reliability and security requirements and are “virtually free or free.”

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