

Case Study



Leading Telecom implements Infosys and HP's BPT Solution for Oracle Siebel Applications

Improves time-to-market by 30%



When a leading telecommunications company wanted to test the implementation of its Oracle Siebel applications, installed as part of a legacy transformation program, it turned to Infosys for the required expertise. By leveraging the Oracle Siebel Business Process Testing (BPT) solution developed jointly by Infosys and HP, the company was able to improve time-to-market by 30% and reduce cost of testing by over 40%, while improving quality significantly.



IT Transformation

A leading Telecom company looking to increase its competitiveness needed to expedite the launch of new products and services, while reducing the ratio of its Capital Expenses (CAPEX) to Sales Revenues. The company, with more than US \$ 20 billion in revenues, provided clients with fixed line and mobile services. It also provided wholesale network services to other communication companies.

In order to achieve the aforementioned business objective, one of the strategies the company adopted was to simplify and integrate its order management system which was currently scattered across multiple legacy systems. The legacy systems presented scalability issues and prevented easy addition of new product lines, in turn affecting the ability of the company to launch new products quickly.

This transformation of the order management system, mandated by business requirements, involved replacing the Customer Care, Billing and Product Management applications with various COTS packages. The transformation was expected to help reduce the number of IT systems from 1400 to 300 over a series of 7 releases planned across multiple years.

In the case study which follows we look at various challenges the QA team encountered while testing the implementation of the Oracle Siebel Applications, as a part of this transformation journey, and how the client was able to overcome the same through a focused and structured approach to testing.



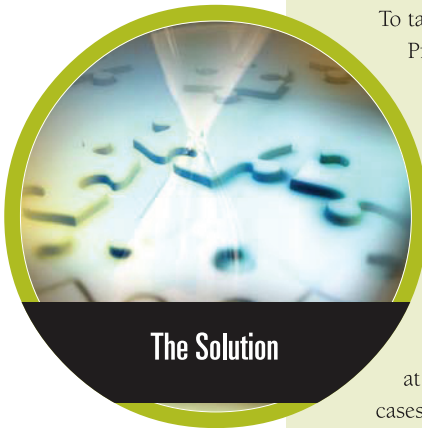
The Stumbling Blocks

Since a large IT transformation program of this scale cannot be implemented as a single program, incremental changes, as part of iterative releases, were the only option. While this works well from a business and application development point of view, from a testing standpoint it entails multiple cycles of thorough regression testing. However the aggressive timelines set by business teams meant lack of adequate time and focus on regression testing of each subsequent release.

Consequently, a high number of defects were detected in the production environment during the second and third releases. While a thorough root cause analysis attributed various reasons for the defects such as lack of end-to-end testing and inaccurate impact analysis, the lack of sufficient regression testing was identified as the prime cause for the presence of such a high number of defects.

Making matters worse, the unavailability of technical expertise prevented the QA team from adopting conventional automation to expedite the regression testing phase. The existing repository contained a very high number of test scripts which needed to be tested to ensure optimal coverage. Testing such a huge number of test scripts, however, was not possible due to the aggressive timelines for successive releases.

Further the lack of alignment between business and IT teams saw a huge number of change requests come up during various phases of testing. In the absence of a well defined process for handling such requests, they sometimes didn't get communicated to the QA team until the eleventh hour. This resulted in rework for the QA teams which then needed to revisit their test scripts and modify them accordingly, at short notice.



The Solution

The client partnered with Infosys to test the implementation of its Oracle Siebel Applications. Infosys, with its expertise in testing Oracle Siebel Applications and a process oriented approach, was able to identify the issues plaguing the testing process and implement effective counter measures based on the client's requirements.

From an overall test management perspective, Infosys helped institutionalize a governance model to streamline processes and enhance information exchange crucial for the success of the program involving multiple vendors. The governance model identified system and application dependencies, point-of-contacts for each module and more importantly provided a central issue log system.

To tackle the problem of a huge repository of test cases for regression testing, a Risk Based Prioritization framework was deployed. Infosys adopted this framework and conducted workshops with business teams to help identify most relevant test scripts which would need to be executed during any given release. Test scripts were prioritized based on criticality, importance to business and complexity. Following such an approach helped identify a regression suite with optimal coverage leading to fewer defects and shorter testing timelines.

However the most significant impact to the engagement was provided by Infosys and HP's Business Process Testing (BPT) Solution for Oracle Siebel Applications. The solution consisted of pre-configured business components which were used as-is, and customized as per client needs, to build automated end-to-end test scripts. An analysis at the start of the engagement to identify complete and partial reuse of the pre-built test cases revealed a 40% applicability. Additionally, the solution helped deal effectively with change requests by allowing new test scripts to be built in a short span of time. By enhancing the configuration components within the solution framework, scripts could be reused across test phases on different test environments.

Further, a mapping document was created to maintain traceability between test scripts and business components from the solution. The mapping document also helped identify the extent to which components could be reused.

Adopting best practices such as standardized documentation procedures, while coding scripts, helped improve impact analysis during requirements phase. This was especially helpful in identifying scope of regression testing during subsequent releases and change requests.

Benefits

By aligning its Oracle Siebel BPT solution to the client situation, Infosys helped ensure that business objectives were met without compromising on the quality of testing.

Leveraging pre-built business components, provided by Infosys and HP's BPT Solution for Oracle Siebel applications, helped improve time-to-market by 30%. Test scripts for functional and regression testing were developed in a fraction of the time, as compared to the pre-solution era. Equally important was the identification of an optimal regression test script suite which successfully balanced important parameters such as test coverage, test effort and time available for testing.

Another important feature of the solution - a centralized keyword repository - allowed easy modification of business components and ensured their reusability in future releases. Employing a central repository to modify affected test scripts reduced maintenance efforts by 45%.

The best practices adopted, along with a focus on testing business processes end-to-end rather than individual components, boosted defect identification efficiency to 99.65%. Of course, an optimal and comprehensive regression test script repository also played its role in improving the defect identification efficiency.

Reducing the number of defects and adopting a process oriented approach to testing its Oracle Siebel applications helped the client reduce the Total Cost of Quality (TCQ) by up to 40%.



For more information, contact askus@infosys.com

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