

Case Study

Client: A US-based seller of office products

Project: The overhaul of the Software Quality Department

Business Profile

Founded in 1986, the client is the world's largest seller of office products and an industry leader in every distribution channel, including stores, direct mail, contract delivery, and the Internet and business-to-business electronic commerce.

The client has more than 1,011 retail stores in North America, in addition to a national business-to-business delivery network supported by 22 delivery centres and more than 60 local sales offices. Internationally, the Company conducts wholly-owned operations in 14 countries through 76 retail stores and 26 distribution centres, and operates 153 retail stores under joint venture and license arrangements in another seven countries.

The client conducts business in 23 countries and employs 47,000 people worldwide.

Business Problem

The Customer Facing Systems Department (CFSD), which catered to the needs of its delivery customers by providing them tailored office supply solutions had to ensure that its users were given the knowledge, selection and solutions that made all facets of procurement cost-effective and efficient.

CFSD had proposed to overhaul its entire Software Quality (SQ) department in order to enhance productivity and improve the overall quality of software products. This proposition was expected to result in an expansion of the SQ work, which NIIT was already performing for the CFSD, into a Dedicated Testing Centre.

The client was interested in improving the overall system quality and increasing productivity, implementing a number of recommended process changes, outsourcing the entire SQ department to NIIT and reducing costs for the SQ functions

The IT environment of the client included software such as Java, .NET, JSP and ASP, tools such as Test Director, Win runner, Load Runner, WSAD, Eclipse, JIRA, AQT and Visual SourceSafe, the MS-Windows 2000/NT operating system and MS-SQL Server, and DB2 in NT (Offshore at NIIT), DB2 in AS/400 (Onsite at the client site) databases.

Key Challenges

NIIT Technologies faced the following changes during Testing:

- Resource Management due to multiple and parallel releases of North American and International Web applications.
- Meeting SLAs and deadlines despite slow connectivity from offshore to onsite, which was through the Terminal Server

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- Creation and execution of Win runner scripts through Virtual machines connected to the Terminal server
- Testing in multiple European languages other than English
- Performing Load testing from offshore and monitoring and tracking the results through the Terminal Server
- Induction of new team members and bringing their knowledge level at par with the experienced team members

The challenges faced during Development included the following:

- Different back-end environments at offshore and onsite. While Offshore there was DB2 on NT, onsite, it was DB2 on the AS/400.
- Multiple projects running simultaneously and having the same set of resources
 - Development
 - Testing
- Difficulties in providing production and UAT support on account of
 - No access to production and SQ logs and applications from offshore.
 - Huge time difference between onsite and offshore.

Our Solution

The engagement started in the middle of 2002 with development projects that continued till 2003. From 2003 onwards, the client also involved NIIT Technologies in testing of its two e-commerce applications, along with on-going development projects. The Projects were undertaken on a Time and Material basis, with three NIIT Technologies' team members working offshore and two onsite.

From 2004 on, NIIT Technologies took care of the enhancements on one of the intranet applications developed by it for customer service representatives of the client and performed testing of three North America based and two Europe based e-commerce applications. This gradually led to an increase in the team size—from three to eight.

As NIIT Technologies had been providing testing support for a long time, it had the highest probability of being the solution provider for the client's entire QA solution when it laid off its existing QA resources.

In August 2005, NIIT technologies bagged the contract for being the software quality assurance division of the client for both North America and International (European) e-commerce applications. It was easy for NIIT Technologies to integrate with the client management, development teams, processes and business knowledge of applications.

This contract was based on a fixed fee model and will extend till August 2007. It was divided into five phases including Project Initiation, Knowledge Transfer, Configure Connectivity, Process Finalisation and Steady State.

NIIT Technologies is currently in the Steady State of the project. During the knowledge transfer phase, apart from understanding each application in depth, NIIT also outlined



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various testing processes. It defined the testing process and integrated it with the Software Development Life Cycle; it defined the Automation Strategy, defined Testing Strategies, defined Test Templates, the Communication Plan, the release and configuration strategy, measurements and so on. NIIT also established a Testing Process Handbook that could be used across any division.

Business Benefits

Through the QA Team, NIIT Technologies undertook the following:

- Established well-defined testing processes
- Enabled a strong integration of the client and NIIT teams
- Covered all types of testing for major releases of each application performed including Functional testing, Regression testing and Performance testing
- Met all Service Level Agreements as defined in the Statement of Work.

Through the Development Team, NIIT Technologies undertook the following:

- Provided high quality deliverables—100 percent On time, Zero-Defect deliveries in all work packs
- Developed an intranet that is currently in production and is used by around 2000 Customer Service Representatives

The project, undertaken on a Time and Material basis, drew great response from the customer who rated NIIT Technologies 5, on a scale of 1 to 5, where 5 meant "Excellent."
