



3Nexus QA for Data Backup and Recovery Case Study

Your Results.
Our Commitment.



Client specializes in backup services for database and email systems. 3Nexus performed a complete manual and automation test suite for the client's online data backup and recovery system.

Industry	Software Providers
Solution	Quality Assurance
Services Used	Functional Testing, Usability Testing, Stress Testing, Database Testing
Technologies	Automation: Squish Defect Tracking: Rational ClearQuest DB: MS SQL Server, MySQL database connector Othes: VMWare, Email AutoSender
Engagement Model	Time and Materials
Efforts	7 man-months

Key Features:

The software package features the followings:

- ◆ Backup and recovery of the file system in Windows and Linux platforms
- ◆ Backup and recovery of e-mail messages on Microsoft Exchange servers
- ◆ Backup of MS SQL, Oracle and DB2 databases

Various tests were performed:

- ◆ Functional test
- ◆ Usability test
- ◆ Localization and internationalization test
- ◆ Stress test
- ◆ Database performance test

Solutions:

3Nexus successfully completed the test suite and provided feedbacks in 7 man-months! Client was very pleased with the expertise and passion of the team. Hence, client requested that 3Nexus routinely perform tests for Operation and Maintenance (O&M) releases.

To effectively test the product, 3Nexus test engineers created a product testing environment below:

- ◆ Setup a separate domain for the product
- ◆ Configured an MS Exchange server in the private domain
- ◆ Developed scripts for e-mailing a set of messages with an ability to adjust the letter size and supporting attachments. The size of attachments could also be configured.
- ◆ Utilized VMWare for several virtual OS images: Windows XP, Windows 2000, Windows NT and Linux
- ◆ Configured different language pack selection (e.g. English, French, Russian)

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The testing process started simultaneously with the development. The first task was to carefully study the project specification and to test the project prototype. Our objective was to uncover and eliminate potential defects at the very beginning of the project development.

While the product was under development, the team established an automated solution. We configured a build machine, and completed an automated minimal acceptance test suite. Every time a build was delivered for testing, the build machine generated builds for different operating systems, and executed automated scripts of the minimal acceptance test in all virtual environments. Regression testing is automatically executed with minimal human involvement. 3Nexus QA engineers started manual test only after the automated test was successfully completed.

The developers provided two builds per week. After each build was tested, we uploaded detailed reports about test cases and their results. All builds and test results are available 24/7 on the test portal accessible only by the client.

Customer Benefits:

3Nexus brings exceptional results to the client:

- ◆ The client received a high-quality product effectively tested in multiple dimensions
- ◆ The automated approach helped reduce the duration of the stabilization period.
- ◆ The project was transparent and easy to control since the client had web access to the system where all defects were stored. The client was immediately notified about new defects.
- ◆ The user-friendly GUI increased end user loyalty
- ◆ The client could upload any recommendations into the same system and track the project quality and progress.

Technologies:

Test Automation: Squish

Defect Tracking: Rational ClearQuest

DB: MS SQL Server, MySQL database connector

Othes: VMWare, Email AutoSender

Efforts:

7 man-months



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