

Centrify leverages testing platform to achieve an 80% automation rate



Business Needs and Challenges



Centrify provides a broad spectrum of identity and access management (IAM) applications to unify identity security for users across cloud, mobile and data center applications. The company's solutions give security analysts a holistic view of all users and the devices they use, the systems they access, and their access patterns over time.

Centrify's platform consists of fully integrated software and a cloud-based service that runs on Windows, Unix/Linux systems, mobile and Java and Web-based applications. The extensive number of supported platforms makes testing the applications extremely complex, requiring a number of tools for all the required functional, load, and security testing for each release.

The rapidly evolving requirements and constant updates had the most impact on performing the necessary functional testing within established time parameters. Centrify had been an early adopter of agile practices, including co-locating testers within their distributed teams. In true Agile form, each team operated autonomously and determined their own best way to implement testing. Over time, even with multiple approaches, testing times and technical debt increased across all the teams. This was in spite of outsourcing a portion of the regression testing.

Adam Au, VP of Engineering, recognized there were a number of issues that needed to be addressed in order for the functional testing to keep up with product roll-out plans. In looking at the team metrics it became apparent that automation coverage was decreasing with each new build, even though testing resources were being increased.

One of the issues was the use of different automation platforms by different teams for functional testing. Even though automation of the tests was being outsourced, there was still a lot of duplicated effort due to the different testing approaches.

But the biggest issue was that after initial success, automation coverage decreased with each new build due to the amount of maintenance work required to keep the automation scripts up-to-date.

FAST FACTS

INDUSTRY: • Computer Software

WEBSITE: • www.centrify.com

COMPANY SIZE: • 200-500 Employees

LOCATION: • Santa Clara, CA

LOGIGEAR • TestArchitect™

DELIVERED: • Test Automation Platform
• Automated test cases
• Training for Centrify Teams

BUSINESS IMPACT: • Regress Run Time was reduced by a factor of 40x.
• Additional 972 new bugs discovered before product release.

The Vision

While Adam was a proponent of autonomous decision-making, he believed that standardizing the approach to functional testing was central to improving performance across all teams. It had the potential of allowing resources to be shifted between teams as needed, and thereby reducing the need to constantly add resources.

The effort began with evaluating each of the current platforms and the test methods being employed. The obvious benefit of standardizing around a current solution would provide a shorter ramp-up period than going with a completely new solution. Shortly into the evaluation, it was clear the shortcoming of all the platforms was the effort required to maintain test scripts.

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In today's business environment, startups must pursue an aggressive global model for software development and testing. In less than 6 months, LogiGear designed and delivered a powerful and global automated software testing solution that proved critical to our successful product launch.”

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Adam Au

VP of Engineering - Centrifly Corporation



The Solutions

Having some knowledge of keyword-driven testing, Adam felt that the method could help overcome the test maintenance challenge, but keyword implementation was limited in the existing tools. Further research into keyword frameworks leads to TestArchitect™ from LogiGear.

To prove the capability of the solution, the LogiGear team automated a number of existing tests. Centrifly engineers were then given the tests to implement and use as a model for creating additional test cases using plain text. The initial pilot successfully demonstrated that TestArchitect™ would provide the collaborative automation solution that both Centrifly's in-house and outsourced teams would be able to use and share test assets.

LogiGear worked with the Centrifly test teams to program custom actions for a number of application controls. At the same time, LogiGear provided training to all of the teams in order to meet Adam's objective of having a standardized testing approach and method. The outcome was a complete test automation framework that enabled Centrifly to align software development and testing groups, unite test designers, testers, and automation engineers, and integrate their onshore and offshore testing teams.

The Results

A complete automation platform was delivered to Centrifly in 1 month. Team members in all locations were trained on processes and methods. Test development was completed and transitioned from the initial LogiGear team to Centrifly teams within 3 months. An extensive library of keyword actions has been created, allowing even non-technical testers to create new test suites on the fly without programming support. This approach enabled 80% of all of Centrifly's tests to be automated.

The full test suite that previously required 2 weeks and 4-5 test engineers, can now be executed by 1 tester and run in 8 hours using 4 machines. The average time to prepare a new platform test suite was reduced to 2 days. In the first full test suite run, approximately **25,000,000** total **tests** were run across all builds, finding **972 bugs**, of which 60% were identified from automated tests.

About LogiGear

LogiGear is a leading provider of software testing services, test automation and application development and maintenance. We help organizations deliver better products while saving time and money. Since 1994, we have completed testing projects with hundreds of companies from early stage startups to Fortune 100, across a wide range of industries and technologies.



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