

Excellence Tested

Increased test coverage by 500%, execution frequency by 300%, and an associated man-day saving of £100,000+ per year

Summary

For Callcredit, a leading innovator in the field of credit referencing, the accuracy, intelligence and reliability of its critical information systems is key to helping its clients make critical purchase, lending and authorisation decisions.

Callcredit recognised the need to implement test automation to cope with the ever growing code base and turned to Sogeti for support.

Over the space of a year, Sogeti has helped Callcredit to automate its regression testing in a project that has increased test coverage by 500%, execution coverage by 300%, and an associated man-day saving of £100,000+ per year. Automation is actively helping to significantly reducing the risk of application errors entering the "live" environments.

Other key benefits include the ability to include more new functionality with each release, improved staff morale and productivity, early confirmation of build quality, fewer execution errors and associated investigation time caused by human error, and a full audit trail.

"We are well on track to hit ROI point within 18 months, and to make significant operational cost savings thereafter. We can test significantly more regression tests per given release, more frequently detecting defects much earlier in the lifecycle per build. The balance of content of any given release has tipped significantly toward new functions now the regression burden has eased, we have a futureproofed solution and morale in the team has significantly improved."

Andrew Millar
Head of QA, Callcredit

The Client

Callcredit is part of the Callcredit Information Group (CIG). The Credit Solutions Division within the Group include; DecisionMetrics, a specialist in scorecard development and multi-bureau solutions and Legatio, a provider of online tax filing and identity verification software. The Group also includes the Marketing Solutions Division, experts in database hosting and marketing fulfilment services. The division is also an industry leader in data and marketing systems and an expert in international market analysis and business planning.

The Challenge

Since its inception, Callcredit has grown rapidly across the fields of credit referencing, marketing services, interactive solutions and consultative analytics to enable businesses and consumers to make informed decisions assisted by its products.

The Group prides itself on its innovative services, developed in-house and delivered through multiple channels including the internet, telephone call centres and electronic data exchange systems. The development teams have created millions of lines of code and are continually adding features and functionality to its portfolio of software driven services in response to the market and of its clients.

Callcredit's services support individuals and creditors during critical purchase, lending and authorisation decisions. These services include credit checks, identity validation and affordability scoring. Any systematic flaw or bug in the complex software applications that analyse and process data could lead to significant financial losses for clients and severe damage to the Group's reputation.

Consequently, Callcredit focuses a significant amount of effort testing its products to minimise the risk of faulty code impacting on its activities. However, with strong growth and a corporate goal to continue to deliver innovative, market leading new services, Callcredit was struggling to meet product release deadlines. Delays in testing or, even worse, failure to achieve an adequate coverage in the time available could potentially introduce bugs into a live customer-facing environment with potentially disastrous results.

By late 2008 any product release required concentrated effort of virtually the entire QA team - preventing progress on concurrent projects.

Selecting Sogeti

The level of process inefficiency and risk was deemed unacceptable by senior management who looked at a number of options, including increasing the internal staffing levels, reducing the frequency of releases, reducing the amount of new functionality added with each release, or outsourcing testing per se to a third party.

Committed to finding a solution that supported the Group's business objectives without introducing problems in terms of scalability, security and cost, a more favourable option was sought, specifically automating elements of the testing process. This strategy would provide the most significant benefits and would be able to scale as the size of the code base increased. Although the in-house test team were experienced, it was felt that there was not enough in-house expertise to successfully develop and deploy test automation without help.

Following a formal selection process during which a number of best of breed suppliers were considered, Callcredit approached Sogeti based on its proven expertise and track record in supporting clients with the successful implementation of test automation.

Sogeti also demonstrated deep technology and industry knowledge, exhibited by its in-country consultants and project managers Callcredit had dealt with during the selection process.

"Data is at the heart of Callcredit's business model. The chosen partner would need to understand this and work with us to meet this challenge. Sogeti won us over with its professionalism and the depths they went to understand our processes. What we got was a true partnership and that is one of the factors that made the project an overwhelming success."

Andrew Millar
Head of QA at Callcredit

The Solution

The project to automate a significant proportion of the regression tests workload would be broken down into three distinct parts.

The first part was the proof of concept phase using a small subset of the tests covering a comprehensive range of the technologies employed by Callcredit to prove the tool and help define the collaborative workflow needed to achieve the end goal. During this proof of concept, Callcredit worked closely with Sogeti to identify processes and look at how automation could help with a wider shift in the company to streamline not only testing but the end-to-end software development cycle as well as disaster recovery.

The next phase involved setting up the collaborative workflow between the in-house test team and Sogeti's onshore and offshore consultants to create the automated scripts. This allowed the initial pool of 5,000 tests to be refactored, optimised and rationalised to less than 1,000.

With Callcredit tasked with business as usual activities, specifically the routine execution of regression testing as part of its day-to-day processes, Sogeti took full responsibility for the

coding of the automation scripts for the newly rationalised pool of test assets.

The Benefits

Within four months, the bulk of the regression testing was automated. The next two months allowed Callcredit to analyse the effectiveness of the change.

Prior to automation, a full regression test cycle would take around 70 man-days and required high levels of manual intervention and diligence. Now, using test automation, this process, which was susceptible to human error, takes 14 man-days with minimal oversight and delivers a full audit trail.

Due to the tight time confines of the old regression testing model, Callcredit would occasionally need to have service impacting rollouts during maintenance windows for code updates. Now, updates and patches are completed within scheduled maintenance windows without any downtime.

With a financial breakeven point estimated at 18 months, automation has increased test coverage by 500%, execution coverage by 300%, and an associated man-day saving of £100,000+ per year. This figure will grow as the size of the Callcredit code base and/or the number of releases increases.

Although the initial project revolved around critical regression testing for Callcredit's web facing applications, the tools are also used by development teams to allow rapid version compliance testing ahead of passing code to the test team. This ancillary benefit has reduced the number of packaging errors and further improved the workflow across the different parts of the organisation.

Another benefit is validation of the firm's disaster recovery position, which is now tested via scripting to ensure that failover is successfully carried out even after significant code changes.

On the morale front, automation has been welcomed by the test team. With automation doing the bulk of the repetitive tests, test automation has provided significantly increased productivity from the test team, freeing up staff to work on more challenging and rewarding areas that help Callcredit to continue its ethos of innovation.

"The project was a big spend for us as a company, and had a very high profile as we understand the value of testing, and not just as an afterthought. Sogeti delivered on time and within budget and have enhanced their reputation with us a great deal."

Andrew Millar
Head of QA at Callcredit

Conclusion

With the test automation bedded in, Callcredit is now pursuing a modest maintenance program which creates and modifies scripts on a regular basis to ensure the full benefits are maintained.

The non-internet facing core systems are now likely candidates for automation over the next year. From the development team to the boardroom, the project has been hailed as a major success and a valuable addition to the business that will allow Callcredit to keep expanding without limitation.

Contact us

To learn how Sogeti's Testing Solutions can help organisations achieve their testing and QA goals, please visit: www.uk.sogeti.com or contact your local testing representative for more information:

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