



New Age Automation

Case study



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The Challenge



With digital transformation inducing banks to adopt technology like never before and the customer becoming more information & tech-savvy, a high street bank in UK realized the need to shift early-on and embarked on a customer experience transformation focused on staying ahead of its competitors and create a long lasting identity among its customer base.

Its main challenges were:-

- Launching a quality assured, innovative commercial banking portal “Commercial Replatform” in time using the online platform.
- Integration of the existing core banking and surround applications into a unified customer experience; a seamless assimilation with the existing infrastructure.
- Development and customization of the new application in a semi-agile model with releases in sprints.
- Automation of assurance initiatives that provided total integration through enterprise-ready connectors, incorporation of the right mix of open-source as well as licensed automation tools.





Assurance Goals

The Bank chose Maveric Systems as the independent assurance partner for its Commercial Replatform initiative. The assurance strategy incorporated automation right from the start of the assurance engagement, increasing effectiveness in realizing automation benefits across the duration of the initiative, worked towards achieving following goals:-

- Designing an assurance strategy that would take into consideration changes in development within each sprint, wherein, time spent on testing for each sprint was to be minimal, but at the same time offering maximum coverage.
- Creating an effective functional test suite, which would cascade into a robust automation framework, thereby reducing effort and cost involved.
- Achieving the right cost-benefit mix with automation investment, so as to prevent any compromise on Quality, Time, and Economy (QTE) for assurance initiatives

Salient features of the automation strategy

- 1. Continuous regression instead of compromised or no regression:** More than 90% automation on regression pack achieved during each cycle reduced the functional regression in consecutive sprints / cycles.
- 2. Implementation of continuous integration:** Changes in development were constantly monitored, thereby foreseeing the impact of each change to the test environment. This minimized functional effort during scope creep in execution phase. Development timeline changes did not affect overall test plan.
- 3. Utilization of Open-Source Tools:** To avoid automation cost escalation by investment in expensive tools, an automation framework using open source toolsets was created, and a customized automated test suite using a combination of front-end automation tools (Selenium), middleware / API test tools (REST and SOAP UI) and back end systems automation (T24 OFS) were used in conjunction to achieve complete coverage and at the same time, ensure that the pack could be used discretely on independent systems and integrated together for end-to-end workflows.
- 4. Compatibility Testing:** Since user experience was the ultimate goal, compatibility testing could not be compromised on. The automation pack was also customized to cater to screen level validation; this automated compatibility facilitated quick turnaround of execution across browsers and operating systems and eliminated the need for manual testing, thereby reducing the need for more testers for the job.
- 5. ROI on Automation** - Given that a typical automation build takes significant time to yield returns, this project is unique in that 65% of ROI has been achieved within the project itself. The suite was also designed with the outlook that business users with minimal technical skills could execute the pack easily, and the need for specific automation skills needed to be in place only where there were changes in the system for maintenance

In Conclusion

- **Customer experience and satisfaction** has always been the driving force for the Bank. Catapulting the digital banking platform to the next level of user experience with leading edge technologies was the foremost step in this direction. Commercial Replatform – an initiative aimed at transforming the existing internet banking portal was a significant milestone and formed the direction setter for all future customer delight initiatives.
- **Assuring the quality** of this initiative without sacrificing on the three key tenets of quality assurance – Quality, Time and Economy – cannot be over emphasized. The joint strategy of Maveric Systems and the tier 1 Bank completely automated the quality assurance engagement against the backdrop of the semi-agile development model and aggressive go-live timelines of Maveric Systems. The further use of a proprietary automation framework achieved **85% automation** that was subsequently cascaded to continuous integration and development (CI/CD) with nightly runs for nightly builds. This automated testing strategy involved innovation that reaped quality, cost, and time benefits through the use of open-source tools, continuous regression, testing at API/Middleware level - all working towards the overarching goal of continuous integration.
- The key to this success also lies in a functional design based on the data flow and not the traditional approach. Consequently, it enabled the team to achieve multiple benefits like **25% cost reduction** from the overall allocated budget, about 50% of manual testing effort and a **60% reduction in manual unit** testing through discrete middleware automation, an effective regression suite, as well as reusable automation packs that could be handed over to the development team and business users of the bank



About Maveric

Started in 2000, Maveric Systems helps global banking and fintech leaders drive business agility through effective integration of development, operations and quality engineering initiatives. Our strong banking domain competency combined with expertise across legacy and new age technology landscapes makes us a preferred partner for customers worldwide.

We offer Product Implementation, Integration and Quality Engineering services across Digital platforms, Banking solutions and Regulatory systems. Our insight led engagement approach helps our clients quickly adapt to dynamic technology and competitive landscapes with a sharp focus on quality.

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