

# Banking on test automation

Global bank embraces quality engineering for speed and agility



# It's all about speed and quality

**Modern enterprises see software as a source of competitive advantage, and they demand quality—at speed and at scale.**

Enterprises must rethink how they build and test applications, moving away from reactive and issue-based conventional testing at the far end of the development cycle toward

embedding quality throughout. For one of the largest banking organizations worldwide, this meant embarking on a holistic quality engineering transformation.

Since 2016, the bank had made significant investments in enabling an Agile culture across application development. However, manual

testing was still impeding speed to market. What's more, two separate organizations managed different phases of the testing lifecycle, resulting in redundant testing that wasted time and money.

The bank sought to create a unified testing function, consolidating its testing organizations with the goal of enhancing end-to-end test automation—and delivering high quality applications faster and more cost-effectively.

When tech meets human ingenuity

# From deep analysis to holistic redesign

**Accenture teamed up with the client to deliver end-to-end testing transformation.**

We began by analyzing the testing organization from top to bottom, across all applications. Using our High-Performance Banking Platform, we designed a new unified testing model. We also leveraged the iterative optimization capabilities of the Accenture Touchless Testing Platform to weed out redundant test cases and maximize testing coverage while reducing effort and cost.

Next, as part of the bank's pivot to a Quality Engineering organization, we created a transformation roadmap to automate every

aspect of the end-to-end testing lifecycle. This involved redesigning the current testing solution, moving away from a use-case design approach and toward a business-process-driven application model.

It also involved equipping testers with "low-code" automation using visual application models built on Broadcom's Agile Requirement Designer (ARD). This eliminated the need to create test cases manually; a test designer can now update the visual model with changes for a new requirement and then generate updated scripts automatically.

## When tech meets human ingenuity

On top of this, we provided the testing team with CI/CD-enabled, unattended, and parallel execution capabilities by integrating with the bank's Jenkins-based platform and standing up an on-premise Selenium grid to support the execution infrastructure. This was supplemented by a Function Feature Library—a catalogue of all application functionality tested—to help with requirements traceability, effort sizing and risk assessment.

One of the most important aspects of our work on this testing transformation has been a rigorous focus on upskilling the testing team with future-ready capabilities. That includes skills in the latest automation tools, languages such as Gherkin, and the underlying custom automation framework—as well as CI/CD integration, parallel execution via a grid-based environment and DevOps.





## A valuable difference

# Faster testing, faster speed to market

**For the bank, the success of the transformation hinged on improving three critical indicators: time to market, extent of automation, and application quality. Our work together passed all three tests with room to spare:**

- **Time to market:** The unified testing model helped the bank reduce its testing cycle by almost two-thirds—from 12 weeks to just 4.5. Moreover, fully automating the core banking mainframe systems reduced regression test execution time by 63%—and for Salesforce by 90%. That’s enabled the bank to reduce overall time to market by more than 60%, enabling it to launch new products and services faster than ever.
- **Automation:** The new end-to-end testing solution has enabled 84% testing automation—exceeding the bank’s target of 65%—with scope to go further still. The team also enabled automation in branch locations for the first time, cutting the number of resources and effort required to run tests onsite.
- **Quality:** Together, these initiatives have had a transformative impact on the quality of testing. Defect leakage has been reduced by a massive 75%—well in excess of the bank’s target of 30%. In addition, half of the targeted productivity savings for the three-year engagement were achieved within the first year, allowing the bank to redeploy more than 50 people to support more value-adding demand from the business.

A valuable difference

# Future-ready testing

**We not only exceeded the bank's expectations on all three indicators during the first year of the program, but also helped cut the cost of testing by 31%, setting the stage for further improvements on the transformation journey.**

Importantly, by upskilling manual testers in automation, CI/CD, DevOps and emerging technologies, we've positioned the testing team for future success as the bank's IT organization adopts modern quality engineering practices in pursuit of speed, quality and excellence.

What's more, with application testing now an integral part of the end-to-end software development process, the bank has the modern quality engineering processes it needs to keep delivering better applications faster than ever, empowering it to get products and services to market at the pace demanded by the digital economy.

