Nedbank Accelerates IBM Z Innovation with BMC Compuware ISPW

“Our IBM z15 is our core banking platform. While we did assess our options, the reality is that nothing processes as fast as the IBM Z platform does.”

Devi Moodley | Executive Enterprise DevOps and Release Management | Nedbank

Business Challenge

Nedbank is one of the largest banks in South Africa, serving both the commercial and retail banking sectors in addition to the insurance market. Established in 1831, the bank is steeped in tradition, but is keen to provide customers with modern experiences and respond to mounting pressure from new entrants to the market. With this in mind, the bank started on the road to digital transformation by adopting Agile development methodologies before making the shift to DevOps.

“We could see unicorns and fintechs coming in which were offering fewer traditional solutions, far more agile than us, and closer to their clients’ needs. We recognised that we needed to evolve and start adopting different practices that would give us greater agility in getting new products to market more quickly while also delivering the incremental changes that allow the business to run smoothly and effectively. DevOps was the obvious answer. We started small, doing lots of experimentation on the front end and then started to work on the back end,” said Devi Moodley, Executive, Enterprise DevOps and Release Management, Nedbank.

Nedbank runs its entire back-end core banking system on IBM z15. After reviewing its back-end transformation options, the bank decided to refactor and continue to leverage the IBM Z platform. This meant a key part of the wider digital transformation journey required having the capability to modernize on the IBM Z platform as well as on distributed systems. Nedbank’s IBM Z team therefore needed to adopt Agile processes to align itself with the other teams in the organization.

“We also learned lessons from seeing competitors trying to compete with fintechs by building new digital capabilities away from their core banking platform, which resulted in huge cost burdens,” said Moodley. “While we don’t have a cross-platform team—with

1 Nedbank uses the following IBM Components: IBM z15, IBM Enterprise COBOL v6.2, IBM OCS v5 and IBM DB2 v12.
front-end, back-end, and IBM Z engineers all sitting together—our IBM Z teams work using the same Agile principles and practices as their distributed colleagues to keep up with the pace of transformation across the wider organization.”

The bank soon realized that its legacy Source Code Management (SCM) tool was not able to support its need to embrace Agile development, and it needed a new set of tooling designed for the modern age.

“The review process took too long, and we couldn’t do parallel development or manage contentions effectively. We also didn’t know who had checked out code already so multiple teams ended up working on the same source code, increasing the risk of errors and duplication. Branching, merging, and versioning were difficult, and errors often weren’t identified until the end of the day.” Additionally, the bank found that it had to almost retrofit the product to do its own code promotions, which involved a lot of manual effort. Ultimately, it took a long time to deliver anything, significantly hindering progress on digital innovation.

After realizing that a new solution was needed, Nedbank conducted a thorough review of its options. BMC Compuware was identified as a potential solution provider. BMC Compuware recommended and facilitated a Value Stream Mapping (VSM) workshop to identify what Nedbank was looking to achieve and help it to define clear success criteria for the POC and solution. This involved identifying the key pain points that squads were feeling, which were then ranked and prioritized to create a top 15 list. From there, Nedbank identified two teams—Core Banking and Payments, as these teams had the largest number of IBM Z components—to evaluate three potential solutions: BMC Compuware on its own, BMC Compuware with an analysis tool layered on top, and a BMC Compuware competitor.

Teams were given up to three days to learn how to use the solutions effectively and identify story points to work on. They then conducted time trials with each solution to see how quickly and effectively they were able to resolve the issues. This enabled both quantitative and qualitative feedback to be gathered from each team. They were asked to score each solution against a set of criteria that had been defined through the VSM workshop. The solutions were also compared through a cost lens along with other factors such as ease of ownership (i.e. the complexity of integration), how many sets of tools would be needed, the size of team needed to implement and maintain the solutions, and what kind of support would be needed from each supplier.

“It’s important to take people along on the journey rather than just mandating from the top,” added Moodley. “If you actually work with the squad and walk them through the process, the anxiety of doing something new and different dissipates; they know you are there and they are part of the decision rather than having a new solution forced on them. Taking this factual, evidence-based approach removed any emotion and allowed us to get a user viewpoint.”

Following the VSM workshop, Nedbank quickly identified BMC Compuware ISGW as the ideal solution for Continuous Integration and Continuous Delivery (CI/CD) on the modern IBM Z enterprise platform. BMC Compuware ISGW ensures IBM Z code pipelines are secure, stable, and streamlined throughout the DevOps lifecycle, giving teams confidence that they can quickly and safely build, test, and deploy IBM Z platform code. This gave Nedbank’s IBM Z teams the ability to:
Better manage processes with the ability to see the status of all programs throughout the development lifecycle, be alerted when code is checked out, perform concurrent development, and confidently merge code updates

Integrate with modern DevOps toolchains using Jenkins plugins, REST APIs, and Command Line Interfaces (CLIs)

Automate, standardize, and monitor deployments into multiple target environments, and smoothly roll back when issues occur

Measure against predefined KPIs using in-depth BMC Compuware zAdviser metrics and continuously improve developer performance through analytics

The technical rollout of BMC Compuware ISPW went smoothly. The more challenging aspect of the project was the planning and management side, but the support from BMC Compuware was superb and meant the rollout was a great success.

“BMC Compuware’s DevOps engineers and technical specialists sat side-by-side with our scrum teams for a week or more and were on hand to answer any questions,” said Moodley. They helped with conducting practical tests and guiding specific story points through BMC Compuware ISPW. There was a lot of training and coaching to ensure our people were comfortable. I have to say that ultimately, the product spoke for itself! Its design and interface meant our developers could quickly see how easy the whole process became.”

The bank was also challenged to prioritize what aspect of the solution should be adopted and when. “We created a project plan to support the rollout, setting deadlines and holding application owners accountable to those timeframes,” said Moodley.

“Having strong senior executive application owners who fully supported the journey and adoption of DevOps made a huge difference. It was about much more than just adopting new tools; the ‘left shift’ needed to be embraced into the Nedbank culture.”

Surprisingly, Moodley added, “While other platform teams adopted DevOps earlier, adoption on the IBM Z platform was a lot faster!”

Since adopting BMC Compuware ISPW, Nedbank has benefitted in many ways. In particular:

Increased operational efficiency in the IT change management process: The new efficiencies enabled through BMC Compuware have helped Nedbank reduce the elapsed time on administrative processes by 95 percent, contributing towards operational cost savings of more than ZAR 3 million ($176k) per annum.

Optimized developer output by 94 percent: BMC Compuware is a force-multiplier for Nedbank’s developers, enabling them to complete tasks in a fraction of the time. It previously took over an hour to promote code, but developers can now complete that work in around two minutes.

Seamless CI/CD toolchain: BMC Compuware’s integration with other crucial tools in Nedbank’s DevOps toolchain, including Jenkins, SonarSource SonarQube and Digital.ai XL Release enable the bank to bring the IBM Z platform into the mainstream of its DevOps practices and Agile development methodologies.

Shortened unit testing time: BMC Compuware’s integration with SonarQube has helped Nedbank improve the efficacy of its unit testing capabilities and promote
greater reuse of those test assets across the IBM Z computing platform. This has helped reduce the elapsed time of unit testing processes from two hours to just ten minutes.

- **Accelerated delivery process:** A significant advantage that Nedbank enjoys from its use of BMC Compuware solutions is the ability to promote code faster. Project delivery time has been reduced by over a third. This has dramatically accelerated the rate of release of new IBM Z features to the business.

“The main advantage to the business has been the ability to deliver code faster, as this allows us to become Agile and move with the market,” explained Moodley. “We make use of all the BMC Compuware ISPW features—it’s so visual! The developer can’t get lost; it gives us a simple way of managing code. The open architecture of the solution has contributed to speed and put accountability back in the hands of our development teams. They are now responsible for their own code and don’t have to rely on other teams to get things done. They can easily see the code interdependencies and, as a result, avoid contention issues.”

Nedbank is committed to continuing its work with BMC Compuware and is already looking to expand its relationship by adopting more BMC Compuware solutions.

“Culture is such a big part of making DevOps successful and with BMC Compuware you get more than a tool, you get the team—it makes all the difference,” said Moodley. “BMC Compuware understands our business and its unique needs. They can help us along our own DevOps journey because they’ve been there themselves.”

“We are currently working with BMC Compuware to explore new ways to automate our testing processes on IBM Z to save our developers even more time,” she added. “Yet it’s not just about the product—BMC Compuware is helping us to create functional tests and manage the data that goes into them, and they’re incredibly open to requests to enhance the product to meet our specific needs more effectively. Ultimately, BMC Compuware helps us compete more effectively in the modern marketplace and deliver a better service to our customers.”

“The technical rollout was a dream, as the BMC Compuware team made itself accessible by being on-site to ensure everything went smoothly.”

Devi Moodley | Executive Enterprise DevOps and Release Management | Nedbank

To learn more, visit: [bmc.com](http://bmc.com)