A major multinational financial services company has been transforming to meet new customer demands for innovative services, delivered through digital means. Most of the projects involved in this digital transformation include both mid-range and mainframe pieces. In fact, 60 percent of processing and 70 percent of data still reside on the mainframe, making this system of record core to the company’s ability to compete against nimble disruptors.

However, because the company’s mainframe was siloed, operating with Waterfall-based processes and antiquated tools, mid-range teams were forced to wait on back-end changes and major projects were delayed waiting on mainframe components.

There were three core areas the company’s Director of Engineering saw needed to change:

1. **Development**

Mainframe developers were still using 3270 emulators for coding. Without access to a modern integrated development environment (IDE) that provided a consistent interface to work with, they were forced to jump between tools to develop. They couldn’t reap the standard benefits of modern tools—autocomplete, syntax highlighting, search, and integrations with best-of-breed DevOps solutions.

2. **Orchestration of Tasks**

The mainframe team had no automation in place. It took multiple people and teams to move code from check-in to deploy and from development to production with their Waterfall-based source code management solution. There was nothing managing the flow of the process from one task to the next.

There was no automated testing in place to handle online and batch testing, and there was a lack of testing frameworks as well as lack of integration with automated testing tools.
3. Integrations

The mainframe team had too many disparate systems involved in the process, so a developer/release manager would have to jump from one system to the next. With minimal change management integration, tracking changes end to end was a manual task.

To start leading their mainframe team into an Agile/DevOps transformation journey, the Director of Engineering implemented BMC Compuware Topaz Workbench, and BMC Compuware ISPW—migrating 300 application developers from Micro Focus ChangeMan—and BMC Compuware Xpediter.

They chose BMC Compuware in large part because these tools already integrate with many of the Continuous Integration/Continuous Delivery (CI/CD) tools the financial services company currently has in its mid-range DevOps toolchain, including Jenkins, Atlassian JIRA, Digital.ai Release, ServiceNow, and SonarSource SonarQube.

These solutions provided the mainframe team with modern capabilities like:
- A modern development environment with a full-featured Eclipse-based IDE
- Code completion
- Syntax highlighting
- Integration with tools
- Fully orchestrated deployment and testing built into the pipeline
- Integration with existing test and scanning tools as part of the pipeline
- Fully automated change management
- Integration with Elastic’s ELK Stack for end-to-end metrics

The mainframe team now uses ISPW and Topaz Workbench for all development work. Almost no application teams use the TSO ISPF “green screen” today, providing a boost in productivity. Through ISPW, they use Xpediter in test levels.

They use Digital.ai Release for pipeline orchestration. Digital.ai Release pipelines pull information from ServiceNow on ISPW’s release and time it to track the rate of implementation.

The Director of Engineering says by including the mainframe in the company’s broader DevOps toolchain, they have crossed a major milestone on their CI/CD and DevOps journey, setting them up to gain significant engineering efficiencies and enhanced agility in the mainframe application delivery processes. And BMC Compuware’s integrations have laid the foundation for future mainframe application migrations to the CI/CD framework.

Integrations with best-of-breed DevOps solutions helped the company improve the quality and velocity of the services it delivers to cardholders and merchants, not to mention the efficiency with which those services are developed, ultimately removing the mainframe as a delivery constraint and reducing the time customers must wait for innovation.

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