IMPROVING THE DEVELOPER EXPERIENCE WITH AUTOMATION

The role of the mainframe as the central engine of commerce and data management in the 21st century is without dispute. The key to mainframe modernization is the improvement of DevOps practices through modern tooling and interfaces; most specifically, through automation. As many organizations implement DevOps practices but still fail to scale adoption, many believe that automation can help. A recent Forrester report on the state of mainframe DevOps, *Developing Your Modern Mainframe Strategy*, found that 71 percent of organizations agree that automation is key to mainframe modernization.

There are many repetitive tasks involved in developing code for the mainframe, and although experienced developers have been doing this manually for decades, this is not optimal, especially when there are intelligent tools to do the job. Embracing these tools has numerous benefits:

- First, it relieves developers of having to do grunt work like manual testing, manual code checks, change ticket requests, and TPS reports, and focus instead on the work they enjoy doing.
- This, in turn, makes mainframe work more attractive to the next generations of developers who are deciding where they want to apply their skills.
- Automated processes vastly improve quality control, allowing for testing much earlier in the lifecycle with more effective approaches, such as improved code coverage, ensuring a higher quality product is released into production.
- Speed is also an issue, especially when working in conjunction with developers who are creating parallel or corollary products for the distributed environment. No one wants

mainframe to be the laggard in an ever-accelerating production process.

We must place greater focus on developer experience. Often with DevOps, the focus is on pipelines, and little thought is given to its effect on the developer. Tedium, paired with deadline pressure, is never a good mix. Although the power of automation does directly apply itself to the pipeline in the workflow, it is vital that management considers how it affects and benefits the developer, too.

This should be an easy connection to make. The same Forrester study found that 53 percent of decision makers are now prioritizing automation of repetitive tasks to free up time for their developers to innovate. They recognize that modernizing the mainframe means speeding things up while ensuring better quality. That's not possible if they continue to do things the old way. But when developers see they can do more in the same amount of time, with the same or less effort, efficiency goes up. Twenty story points in one sprint becomes 25 or 30 or 35 in the next, with no need to work weekends and extra hours.

Developers love to develop—to work on solutions, create cool capabilities, and innovate on the applications. This is the passion of their work, and it is central to attracting and retaining great talent, as well as rejuvenating older talent. We're in an era in which professionals of all ages are far more aware of their career options and career mobility, and are much more willing to move on, or "quiet quit," than ever before. Others may feel that automation will threaten their jobs, but in reality, it lifts a burden from them rather than replacing them. They, too, become more empowered, since they get more time for innovation, while remaining fully confident that code, being overseen by automated tests, is of top quality.

This also relieves companies of the need to maximize the potential, the output, and the profitability of the developers they already have. Let them focus on more lucrative projects, and let automation handle the basic work, what some call *toil*, more quickly, more effectively and more economically. In short, automation fulfills the DevOps paradigm in the same way that ongoing technical innovation empowered the four industrial revolutions of recent history.

BMC AMI DevX has always been on the leading edge of automation for the same reasons. As the marketplace has evolved and as technology has evolved, so have we. We develop integration technologies such as REST APIs, command line interfaces, and native plug-ins for DevOps tools, which are open and compatible for an enormous range of systems. Following are some of the new features now available:

- **BMC AMI DevX Total Test extensions for GitHub Actions and Azure DevOps** enables developers to shift left by running CI/CD test workflows immediately after updating a piece of code to deploy code changes faster while ensuring better code coverage.
- **BMC AMI DevX Data Studio plugin for Jenkins** ensures that developers are using the right data for automated tests to avoid test failures that slow the process of the CI/CD pipeline. Leverage repeatable and dependable test environments that enable tests to be run more frequently delivering higher quality applications.
- **BMC AMI DevX Code Pipeline Source Code Downloader extension for Azure DevOps** empowers developers to easily download source code from ISPW and save time by automating code quality checks.
- **BMC AMI DevX Code Pipeline Operations extension for Azure DevOps** enables faster setting up of CI/CD pipelines by allowing developers to easily automate common ISPW operations such as Generate, Promote, Deploy, or Regress on the mainframe.

This is part of what we call our Open Ecosystems approach, and ultimately this becomes the basis for the ongoing success of the mainframe.

Listen to our podcast, *Liberate Mainframe Developers by Automating Repetitive Tasks*, to hear more expertise on mainframe modernization through automation, featuring our BMC DevOps evangelists: Lead Product Manager Mark Schettenhelm, Senior Solution Engineer Manoj Singh, and DevOps Architect Tony Anter.