

MAXIMIZE THE BENEFITS OF YOUR CI/CD PIPELINE BY INCLUDING THE MAINFRAME



It's hard—well, impossible actually—to predict the future. Whether you define the next few years as a return to normal or a whole new normal, either way, we have been changed. The world will need vastly increased reliable computing power for everything, delivered quickly, and it has to perform well from the start.

The mainframe has been the workhorse of computing for decades and has remained so right through to today. It will continue to serve business and consumer markets well into the future. No other technology has the strength and reliability to process the enormous compute demand of this age.

Because of the ongoing increase in user demand, all software delivery lifecycle pipelines must be accelerated. To meet the faster pace, mainframe delivery has to speed up while still retaining and even improving quality, and mainframe developers must adopt newer techniques like automated testing to achieve this. By pairing more modernized continuous integration/continuous deployment (CI/CD) techniques with the power of mainframes in general, developers can feel confident that software can be built and deployed reliably.

Why is the CI/CD process important for mainframe development?

The build-and-deploy pipeline has always been critical for non-mainframe applications, and now it is equally important for the mainframe. It helps eliminate the manual tasks that must be performed for

each deployment, and automated unit testing prevents bugs from being introduced into production. The huge advantage with automating mainframe application development is that it is already familiar material. Automation allows for:

- Modern version control systems
- Build management, also called a continuous integration system or CI
- Test automation
- Automated quality assurance
- Change management
- Recovery

...along with the need for an orchestration tool to tie them all together.

People, Process, and Technology

When companies contemplate implementing DevOps on the mainframe, their biggest obstacle will likely be simple resistance to change. But successful implementation is possible with good planning and communication. Some strategies to help with this borrowed from [a blog I wrote](#) with [Atul Bhovan](#) include:

- Assigning strong leaders
- Kickstarting your DevOps culture
- Seeking out DevOps colleagues
- Partnering with customers
- Providing education into mainframe agile techniques
- Breaking projects into smaller pieces
- Automating the DevOps pipeline
- Choosing the right tools
- Leveraging existing CI/CD pipelines
- Identifying stakeholders
- Turning vendors into partners

Don't forget about your data

Test quality, application stability, customer experience, and time to market are all critical to the business, and while we focus on the applications, it is easy to overlook the data that runs through them. All testing relies on data, and this includes [automated testing](#). It's vital to ensure that a developer is working with the right data, and that it can be set up and destroyed, and then put back for the next test.

There is also the security issue. People still need to [secure data](#) so that someone who's testing can't sneak out with sensitive customer information and sell it. So although it is being used for testing, it must also be guaranteed secure.

TRANSFORMING FOR THE FUTURE

Terms like digital transformation are being used in all kinds of conversations these days, and with good reason. Businesses that serve the B2B and B2C markets are having to quickly reassess their infrastructure to ensure they are best prepared to face and meet the challenges of the new normal.

These include commerce, security, speed, communication, and reliability, and all of these rely on a well-structured, bug-free CI/CD pipeline.

There is a tendency, when looking into the future, to expect that only new and innovative tools will be able to match the demands of this new age. But as many businesses are already discovering, a great deal of the horsepower needed will come from a new generation of mainframe technology, along with the techniques and talent to drive it.

BMC AMI DevX has been a leader in this industry since 1973 and we have continued to advance and innovate to ensure that the strength and reliability of mainframe remains accessible to organizations of any size. To learn more about how to maximize the benefits of your CI/CD pipeline using mainframe, download our white paper, [*Maximize the Benefits of Your CI/CD Pipeline by Including the Mainframe.*](#)