GENE KIM TALKS DEVOPS AND THE MAINFRAME



If you're going to do a webinar about DevOps, you go straight to the source, and BMC recently hosted a chat with DevOps superstar and Tripwire founder and former chief technology officer (CTO) Gene Kim to talk about all thing DevOps and more.

Including the Mainframe in Your DevOps Journey

Early in the webinar, BMC DevOps architect and evangelist Tony Anter and Gene discussed the perception by many people that DevOps is only for the startups, so traditional companies that have been around for 50 years or more won't gain any value from it. Gene states, "In fact, my area passion since 2014 has been studying not so much the tech giants, but really large, complex organizations that have been around for decades or even centuries, who are using those same DevOps principles and patterns to win in the marketplace."

When asked about the importance of DevOps to large complex organizations that have a mainframe, Gene responded, "DevOps really transcends the platforms you're running on." He provided proof with an anecdote about a publicly traded billion-dollar customer care company that used DevOps practices to evolve its half-century-old flagship application, moving from twice-a-year releases to quarterly, monthly, and finally, a daily deployment model.

"They were able to decrease the cost per transaction by 20X, and if you look at transaction count, it also went up by nearly 20X. some of the highest Net Promoter Scores in the cities where they operate. If you can do it for a 50-year-old mainframe allocation, you know you can do it for anything,"

he pointed out.

Enabling DevOps Across the Enterprise

We tend to agree with Gene's analysis that traditional, complex, and large companies that are running mainframes can easily adopt DevOps practices and break down the silos between developers and operations to create a DevOps ecosystem.

Building a mainframe-inclusive DevOps toolchain enables agile development and testing of critical applications for faster delivery of innovations. Innovators and early adopters of mainframe-inclusive Agile and DevOps are reaping tremendous benefits, including greater agility, faster delivery cadence, and higher application quality.

Integrated mainframe tools work across an array of cross-platform tools, empowering developers on every platform to perform and improve the processes necessary for each phase of the DevOps lifecycle by:

- Adopting shift-left automated testing
- Speeding IBM® Db2® database changes
- Addressing security earlier in the development process

And we aren't alone in our opinion. The recent *IDC Market Glance for Mainframe DevOps* found that embracing a mainframe-inclusive DevOps toolchain enables faster, more frequent delivery of code.

According to the study, "We have observed forward motion in the mainframe DevOps market as of late, making available the tools and technology needed to make mainframe agility realizable for the organizations that depend on it." The IDC research also indicates that 73 percent of DevOps influencers believe that mainframe DevOps is critical to digital business success.

Mainstreaming the Mainframe

It's no secret that many mainframe developers are retiring out of the workforce, especially in larger organizations, so making the mainframe more accessible to non-mainframe developers is imperative. Gene gave an example here, too, referring to the same publicly traded billion-dollar customer care company. The organization was tasked with migrating assembler code running on the mainframe into Java, while continuing to leave the workload on the mainframe.

Addressing the skills gap of mainframe programmers, he explained that with this migration into Java, a mainframe programmer isn't needed to change a report, a database administrator (DBA) or a Java developer can do that. As Gene said, "I have this picture of a mid-fifties, late-fifties mainframe developer who's paired with a lead Java engineer probably thirty something wearing shorts." Gene also referred to a quote he got from that mainframe developer. "He said, 'I had my share of baggage. I knew this couldn't be done. We spent hundreds of millions of dollars, multiple times trying to do this. But it was amazing to see the best of open systems and .net and Java that could make it work on the mainframe. It was exhilarating watching thousands of lines of assembler code disappear.'"

Gene added, "Not only was the code more maintainable and didn't the mainframe team, any Java developer could do that, but it ran on a different zIIP engine on the mainframe and the cost of operating that and running that went down by 95 percent."

Workloads are expected to grow on the mainframe, and BMC DevOps tools are empowering

developers to make the mainframe as adaptive as any other platform, regardless of their experience developing on the mainframe. We call this "mainstreaming the mainframe," an approach that not only brings agility to the mainframe, but also helps unify mainframe and non-mainframe code into a single, highly-manageable repository of digital business logic. Ultimately, it makes the mainframe a more accessible platform for anyone who has little or no mainframe expertise.

Accelerating Innovation with BMC AMI DevX

BMC is proud to offer multiple solutions to mainstream the mainframe and encourage your enterprise DevOps journey, starting with a portfolio of BMC AMI DevX DevOps products. The portfolio integrates with each other and with an expanding array of best-in-class, cross-platform partner tools, enabling developers of every kind to:

- Accelerate application development and delivery process
- Integrate the mainframe with developers' favorite DevOps tools that are already used on the distributed side of the organization
- Ramp productivity and attract a new generation to the mainframe
- Leverage best-in-class tools and integrations to support the full software development lifecycle

"*We were keen to enable better, slicker processes that dovetail technology with the needs of the business, so we can be agile and responsive to our customers. DevOps is pivotal to this. It gives us an opportunity to identify new capabilities that our customers are calling for and bring them to market quickly, providing a competitive edge.*"
—DevOps Transformation Manager, Large UK Bank

Driving the Value of DevOps on the Mainframe with BMC AMI

BMC AMI DevOps for Db2® is a solution that integrates with application development orchestration tools to automatically capture database changes and communicate them to the DBA while also enforcing DevOps best practices. The solution speeds up application changes by automatically integrating mainframe database changes into agile application development processes. BMC AMI Ops supports agile DevOps processes with artificial intelligence for IT operations (AIOps) capabilities to predict and proactively address potential deployment and operational issues in complex environments.

The agility provided by BMC AMI solutions gives a new wave of Dev and Ops teams the tools they need to collaborate and create with the most timely and accurate data available, driving the value of DevOps on the mainframe like any other platform by:

- Accelerating application deployment
- Providing self-service for application developers
- Improving the quality and efficiency of Db2 schema changes
- Streamlining communication between app dev and DBA teams
- Mitigating risk through fully audited and transparent automation

"*Being integrated into the development process with BMC AMI DevOps for Db2 enables us to all share in the responsibility of moving changes toward production. We are working as a unified team now.*"
—Steven Goedertier, Database Administrator, Colruyt

Conclusion

With unparalleled agile application development, testing, and delivery, BMC AMI and BMC AMI DevX provide a mainframe-inclusive DevOps toolchain that accelerates innovation and resiliency.

You can read more about Gene's opinion on traditional and government agencies using DevOps in a separate blog, and be sure to check out Tony's blog here referencing Gene's book *The Unicorn Project* and how it relates to the mainframe. To see more from Tony's conversation with Gene about achieving success through DevOps.