UNLOCKING MAINFRAME DATABASES WITH DEVOPS



In today's digital landscape, organizations are increasingly realizing the importance of integrating mainframe databases with DevOps practices. By overcoming the bottlenecks associated with mainframe database changes, organizations can achieve greater agility, reliability, and efficiency across their applications. This blog post explores the challenges faced by organizations, the growing interest in database DevOps, and the significant benefits it brings to businesses.

The mainframe database bottleneck

Traditional mainframe database changes are not keeping pace with the speed of DevOps, negatively impacting deployment times. A recent IDC survey on database DevOps, commissioned by BMC, shows that a significant percentage of organizations deploy mainframe test database schema changes monthly or even less frequently. Moreover, the lead time for production database changes can be two weeks or more, and a considerable number of organizations roll back multiple deployed database changes every year.

Limited DBA resources

A key cause of bottlenecks in the process is the limited availability of database administrators (DBAs), who are often shared resources. The delay in reviewing SQL and Data Language/I (DL/I) calls and schema and database changes leads to prolonged waiting times for developers. The aforementioned IDC survey showed that a staggering 90.5 percent of application developers lack

self-service tools for database services, with over 60 percent waiting at least a week for a DBA to become available. Additionally, around 43.6 percent of DBAs are shared among multiple application development teams, further exacerbating the resource crunch.

Organizations turn to database DevOps

To address these challenges, organizations are turning to database DevOps solutions. The IDC survey reveals that 87 percent of organizations are either using, piloting/planning, or interested in implementing an automated CI/CD pipeline for mainframe database changes, with a significant number actively piloting or planning to do so in the near term.

A lack of database automation solutions

While the demand for database DevOps is high, many organizations still lack proper automation solutions. According to the survey, only 30 percent of organizations have implemented database automation tools, relying instead on native utilities or in-house developed tools to manage their database change processes.

Business benefits

Despite the challenges, integrating mainframe database changes into an automated CI/CD pipeline brings significant benefits to organizations. It should be noted, that IT executives have the highest value perception inside the organization toward integrating mainframe database changes into an automated CI/CD pipeline. Aside from executive support of the value of this integration, other top drivers for adoption are the desire to maintain database code in source control and improve collaboration. The business benefits realized through this integration include increased team flexibility and agility, improved business efficiency, and enhanced application software quality.

A robust automated solution

BMC AMI DevOps for Db2® revolutionizes the application development process by seamlessly incorporating mainframe database changes into agile workflows. By integrating with application development orchestration tools, such as Jenkins and Microsoft Azure DevOps, BMC AMI DevOps for Db2® automates the capture and communication of database changes to DBAs, while upholding DevOps best practices.

Offering a comprehensive suite of features that harmonize mainframe databases with DevOps methodologies, BMC AMI DevOps for Db2® enables organizations to optimize their development processes while maintaining the integrity and reliability of their databases. Self-service capabilities for application developers empower teams to efficiently manage and implement Db2 schema changes, facilitate effortless communication between application development and DBA teams, and give organizations full transparency and audit trails with user-friendly dashboards.

This powerful solution enables organizations to enhance business agility without compromising database continuity. Application deployment is accelerated, thanks to streamlined processes facilitated by BMC AMI DevOps for Db2®.

Mainframe databases + DevOps + automated CI/CD pipelines

Integrating mainframe databases with DevOps practices through automated CI/CD pipelines is a crucial step for organizations to unlock the full potential of their mainframe investments. By overcoming the bottlenecks associated with mainframe database changes and embracing database DevOps, organizations can accelerate their development processes, improve collaboration, and deliver higher-quality applications. As the demand for database automation solutions grows, organizations must prioritize modernizing their mainframe database tools and processes to stay competitive in the fast-paced digital landscape.

Learn more about the IDC database DevOps survey and download the full results and analysis here.