IBM Cloud DevOps for Hybrid Deployment

Improve visibility and control across cloud and traditional infrastructures while quickly delivering higher software quality

Highlights

- Build applications with enterprise-level security and management

- Accelerate end-to-end testing of multichannel, interconnected applications

- Deploy multitier applications on the cloud or in the data center, from the mainframe to mobile devices

- Orchestrate and automate the release of applications with improved visibility and governance

Four key trends are driving change in the hybrid cloud integration market. Enterprises need to quickly develop and deploy applications that reliably operate their services at massive scale. They also need to deploy the services themselves or consume as-a-service offerings with simple pricing. Developers want to use languages and frameworks that help them seamlessly deploy and monitor applications that connect with existing applications and back-end services, on-premises and across clouds. And, business leaders need to augment processes with decision optimization and cognitive assistance to compete in the digital economy.

Innovation delivered through software is key to the success of most businesses today

Development teams are charged with delivering more functionality, with shorter lead times and without sacrificing quality. To address this challenge, development teams are transforming their approach to software development by adopting cloud technologies and new microservice architectures. The reality of this transformation means applications are extended and refactored into cloud architectures one component at a time.

While changes to a single service can typically be delivered independently, significant updates to support the business require coordination across multiple teams and services. Microservices can add complexity through the sheer number of moving parts. IBM® Cloud DevOps for Hybrid Deployment can help development teams manage this complexity, increase velocity and maintain production control.

IBM Cloud DevOps for Hybrid Deployment is a modular solution for delivering secure, multicloud and traditional applications with lean and agile tools, practices and architectures to automate processes for speed while ensuring governance, quality and control.

IBM Cloud DevOps for Hybrid Deployment delivers the continuous delivery and continuous testing capabilities that enterprises need to deliver digital products and services with speed and control. These capabilities include continuous integration, deployment automation, functional testing, performance testing, release management and service virtualization.

With the addition of software configuration management and application development tools, you can:

- Build applications with enterprise-level security and management.
- Accelerate end-to-end testing of multichannel, interconnected applications.
- Deploy multitier applications on the cloud or in the data center, from the mainframe to mobile devices.
- Orchestrate and automate the release of applications with improved visibility and governance.
- Design, develop, deploy, test and analyze Java and web applications.
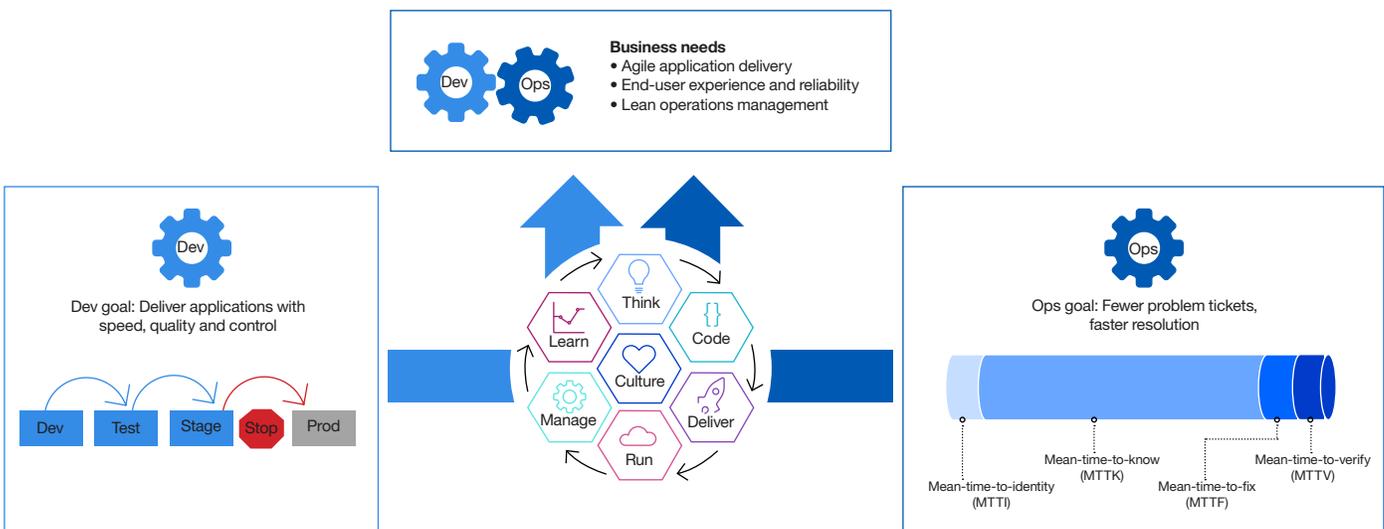- Manage software configurations across geographically distributed teams.

Figure 1: IBM Cloud DevOps for Hybrid Deployment can be used in conjunction with IBM Cloud Management for Hybrid Deployment to provide a complete solution for application and operation teams.

While IBM Cloud DevOps for Hybrid Deployment includes a strong toolchain, teams often already have development tools they rely upon. The modular aspect of the solution means that teams only pay for and use the applications they need.

FlexPoints: A flexible licensing model

In addition to its software delivery capabilities, IBM Cloud DevOps for Hybrid Deployment provides a unique licensing model that gives more control to software development teams for how they allocate their budget and more deployment flexibility after the purchase.

IBM Cloud DevOps for Hybrid Deployment is licensed through FlexPoints and each application has a certain FlexPoints value. To license these applications, development teams can purchase FlexPoints in packs of 1,000 and allocate them across the included applications according to their needs. As the composition of the team changes or grows, the deployment of FlexPoints across the applications can be adjusted and additional FlexPoints purchased.

Applications available for licensing with FlexPoints

The critical DevOps applications needed by development teams are conveniently bundled together in this solution. With FlexPoints, you can choose which applications to license and then adjust as your needs change.

Release automation

- **IBM UrbanCode® Deploy** is an application release automation solution that combines robust visibility, traceability and auditing capabilities. It allows you to seamlessly deploy applications to distributed data centers, cloud and virtualized environments as often as needed—either on demand or on a schedule. An extensive plug-in ecosystem eliminates scripting and enables you to build open DevOps toolchains to support complex applications. You can scale up to enterprise-class deployments handling thousands of servers.

- **UrbanCode Release** manages the release of complex interdependent applications, infrastructure changes and simultaneous deployments of multiple applications. This software enables you to plan, execute and track a release through every stage of the lifecycle model. UrbanCode Release helps reduce errors while making large releases faster and more agile.

- **UrbanCode Build** is a continuous integration and build management server that is optimized for the enterprise. Designed for teams that offer build management as a service to other groups, UrbanCode Build provides scalable configuration and management of build infrastructures and seamlessly integrates with development, testing and release tooling. This extensible, customizable build solution provides a wide range of plugins for most common tools and easily works within a customized framework.

Test automation

- **IBM Rational® Test Workbench** automates regression testing to reduce the risk of deploying poor quality software into production and includes application programming interface testing, user interface testing and overall system testing.

- **Rational Test Virtualization Server** enables you to test software earlier and more frequently in the development lifecycle. It removes dependencies by virtualizing part or all of an application or database so software teams do not have to wait for the availability of those resources to begin testing.

Application lifecycle management

- **Rational Application Developer** is an Eclipse-based integrated development environment that provides tools for visually designing, constructing, testing, analyzing and deploying many types of applications including Java, Java EE, Web 2.0, hybrid mobile, portal applications and Web and REST services.

- **Rational Software Architect Designer** is an Eclipse-based design, modeling and development tool that uses the Unified Modeling Language for designing enterprise Java applications and web services.

- **IBM Rational Change Management products** address the complex needs of large enterprise application teams. IBM Rational ClearCase® is a source control management system that provides controlled access to a wide range of software assets and provides parallel development support, automated workspace management and baseline management. Rational ClearQuest® is a change management system that helps automate workflows, enforce development processes and improve team communication and coordination across the software development lifecycle.

For more information

To learn more about IBM Cloud DevOps for Hybrid Deployment, please contact your IBM representative or IBM Business Partner, or visit the following website: **ibm.com**/us-en/marketplace/cloud-devops-for-hybrid-deployment