BMC Application Release Automation

BMC Application Release Automation enables consistent, auditable deployment processes for multi-tier applications and their supporting infrastructure across physical and virtual platforms. As part of the BMC BladeLogic Automation Suite, it dramatically reduces application outages, automates compliance reporting, and frees critical administrative resources to make IT more responsive to business requests.

Key Capabilities

» Ensures environment definition and consistency

» Automates the definition, assembly, and packaging of build packages for all application release environments, including .Net and J2EE

» Enables composite packaging of multiple application components as a single build package

» Creates very granular, role-based permissions to control access to various phases of the release process.

» Integrates with ITIL® and IT service management processes

Business Challenge

The ability to manage frequent application updates across all phases of the application lifecycle — from development to QA to staging to production — is a critical test of an IT organization's agility and alignment with business operations. Too often, deployments and handoffs are performed manually, raising the likelihood of errors and environmental inconsistencies. When server environments vary between development, QA, staging, and production, these differences frequently cause problems or outages when applications are promoted between environments.

Many organizations attempt to rely on manual tools or homegrown, script-based solutions to build and install release packages, configure target environments, and transfer releases among various environments out to production. These approaches are labor-intensive and error-prone, provide no security model to control who can "promote" code from one stage to another, and rely on staff to log all activity and, where necessary, roll back components. Image-driven deployment software for cloning and distributing application and system images does nothing to support the testing process that ensures the correctness of the original image. Neither of these approaches provide adequate granularity, adaptability, or validation of deployment processes and artifacts, all of which are necessary for successful application release management.

The BMC Solution

BMC Application Release Automation packages, promotes, installs, configures, validates, and selectively rolls back application deployments to reduce the time, cost, and risk associated with these deployments. It executes and tracks deployment steps — from build completion to retirement from production — across physical or cloud-based environments.

The solution automates the process of application updates, resulting in shortened release cycles, application configuration alignment, and automated updates across groups. Users can ensure that server and application configurations are consistent across environments by tracking application compliance in each environment against a distributed application policy model. In addtion, all deployment actions can be authorized based on user roles, ensuring appropriate levels of user access. If necessary, deployments can be easily rolled back, leaving environments in their pre-deployment state.

Environment Modeling and Consistency

Environment modeling allows release engineers to define each environment within the release process (such as development, QA, staging, etc.) and ensure environment configurations remain consistent over time and with each other. Without an automated tool, such as BMC Application Release Automation, release managers must manually configure each target system, creating a significant potential for human error. Automating the configuration of environments assures consistency; enables faster, more reliable testing; and reduces the amount of retesting (and thus repackaging) required for application components.

Automated Build Definition, Assembly, and Packaging

Automated packaging identifies, assembles, and creates application build packages for deployment across multiple platforms — without the need for human intervention — thus reducing the time, cost, and risk of error involved in repackaging applications.

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Composite packaging

Composite packaging allows multiple application components to be packaged for deployment across multiple platforms as a single build package with built-in transaction safety and rollback capability. Composite packaging eliminates complexity by reducing the number of packages which must be built to accommodate various platforms.

Role-based access control for all environments

BMC Application Release Automation allows you to create very granular, role-based permissions so you can determine, very specifically, which individuals have authority to "promote" a package from one level to another, or to make changes to the package. (For example, only an SOA expert can move a Web service into production.) This greatly reduces errors associated with unauthorized changes to packages or their unauthorized promotion to another environment

Features

» Support for multiple application deployment environments, such as development, QA, staging, and production through parameterization of critical release variables

» Package application updates for custom, .Net, and (via additional license) J2EE applications

» Definition of roles and profiles associated with various application environments to allow security and consistency of applications builds during rollouts and rollbacks

» Definition of application release environments and promotion rules for multi-tenant applications

Alignment with Best Practices

With BMC Application Release Automation, you can establish libraries of repeatable application release processes, prevent unauthorized changes, and audit configurations for compliance. Release teams can manage complex applications with a single, unchanging package that adapts to deployment environments — from development through testing and, ultimately, to production. What's more, integration with BMC Application Release Automation – Middleware extends these capabilities to J2EE environments (see sidebar).

Key Integrations

BMC Application Release Automation integrates with both the BMC Atrium CMDB and the BMC Remedy IT Service Management Suite. Bi-directional integration with the BMC Atrium CMDB is built-in, allowing administrators to make service-aware operational decisions, thus improving their effectiveness. Integration with the BMC Remedy IT Service Management Suite provides true closed-loop compliance, integrating an organization's change management processes with its change execution.

Metrics

With BMC Application Release Automation, customers have been able to

» Reduce application packaging time by 85 percent or more

» Essentially eliminate application deployment errors

» Support agile development by reducing environment refreshes from 20 hours to 15 minutes

» Increase the number of application changes per week by 10x, with no major outages

» Reduce mean time to deploy from 45 minutes to 2 minutes

For More Information

To learn more on BMC Application Release Automation, please visit www.bmc.com.