



**Rational** software

## Leveraging the cloud to transform software delivery.

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**Confusing the cloud matter**

The cloud computing phenomenon is a hot topic that has captured the interest of many technology organizations, from personal computer manufacturers to virtualization application developers. As a result, organizations have been using the term “cloud” to describe several, often contrasting, computing concepts—leaving many members of the IT community confused as to what cloud computing actually is and why they should care.

Although we can’t interpret every organization’s understanding or use of cloud computing, what we can and will do is shine a light on how the cloud can be used to streamline and enhance the work of software developers and delivery professionals. In this white paper, we will explain how the cloud and IBM can help you overcome challenges, ensure security, quickly meet goals and improve efficiency in your software delivery environment.

**Increasing pressures from many directions**

The world is becoming increasingly instrumented, interconnected and intelligent because of smarter products. In turn, software development and delivery teams are being asked to respond to changes in the marketplace more quickly—but with fewer resources and while delivering more value.

Moreover, geographically dispersed teams are being pressured to continually deliver new and innovative products to the marketplace faster and faster as developers and delivery professionals struggle to create quality software quickly and efficiently. Developers and delivery professionals in smaller organizations must wear multiple hats—performing administrative duties in addition to managing an ever-expanding technology infrastructure that supports an increasing number of business responsibilities. As a result, IT staffs spend more time maintaining the technology environment and less time developing applications.

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**Highlights**

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***Rational Software Delivery Services for Cloud Computing provides comprehensive application lifecycle management that you can provision as a service on the cloud.***

In addition, many developers, delivery professionals and IT managers are challenged with:

- *Reducing the capital and operational expense of IT systems and resources.*
- *Managing time and cost configurations.*
- *Better managing and increasing the utilization of a sprawling IT environment caused by years of software investments.*
- *Quickly deploying IT assets to support rapidly changing and new project needs.*
- *Governing software best practices for corporate governance and dealing with concerns regarding regulatory and security compliance.*

**Rising above the challenges with new delivery models**

To overcome these obstacles, developers and delivery professionals need new ways to work more efficiently. IT managers must leverage dynamic, agile infrastructures to respond to rapid marketplace changes and evolving business requirements. To address the needs of today's demanding software and delivery expectations, IBM is now offering IBM Rational Software Delivery Services for Cloud Computing. This capability set provides comprehensive application lifecycle management (ALM), which you can provision as a service on the cloud. These services provide you with tooling specifically designed to handle different workloads and development and delivery activities and are based on the IBM Jazz™ initiative to transform software delivery by making it more collaborative, productive and transparent.

Rational Software Delivery Services for Cloud Computing provides a number of benefits to organizations.

*Lower deployment costs*

The services enable users to provision IBM software on the cloud only when it is needed—like a lease or rental—significantly reducing software licensing costs. IBM estimates that these savings can improve capital utilization by 75 percent.

### What is the Jazz platform?

The IBM Jazz technology platform is designed for collaborative software delivery. Exceptionally attuned to global and distributed teams, Jazz is designed to transform how people work together to build software, making software delivery more collaborative, productive and transparent. You can think of the Jazz platform as an extensible framework that dynamically integrates and synchronizes people, processes and assets associated with software development and delivery projects.

#### *Simplify and streamline large software deployments*

Rational Software Delivery Services for Cloud Computing includes best practices and proven methodologies to help organizations improve internal processes and the efficiency of test environments. IBM research has shown the services to reduce IT labor costs by more than 50 percent as a result of fewer labor hours spent on test-environment configuration, operations, management and monitoring.

#### *Improve resource utilization and flexibility*

By providing scalability and on demand provisioning, Rational Software Delivery Services for Cloud Computing improves server and resource utilization, thereby reducing administrative costs and labor. To boost software utilization, these services support virtualization, standardization, automation and self-service provisioning.

#### *Respond faster to organizational demands*

Organizations can speed time to market for new applications and technology using Rational Software Delivery Services for Cloud Computing. Developers and delivery professionals can quickly acquire, install, configure and manage environments needed to develop, test, pilot and deploy applications—and then break down the environments just as quickly when they're no longer needed.

Optimized to run in private cloud environments, Rational Software Delivery Services for Cloud Computing enables you to easily provision software delivery capabilities as preconfigured services in the cloud in just minutes. When running in the virtual server environment, those services can then leverage the elastic computing capabilities of the environment, including load testing or builds. Examples of services on the cloud include collaborative application management, quality management, test management, test lab management, requirements definition and management, performance measurement and management, and delivery automation.

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### Highlights

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You can provision temporary, virtual images of IBM Rational® offerings in a cloud as you need them in just minutes—versus days or weeks to implement software in a traditional manner—to enable your teams to:

- *Collaborate.*
- *Manage quality.*
- *Manage test activities.*
- *Build.*
- *Measure and manage performance.*
- *Report.*
- *Manage assets.*
- *Manage comprehensive portfolios.*
- *Manage Web application security.*

***Rational Software Delivery Services for Cloud Computing is based on IBM Smart Business Development and Test on the IBM Cloud—a security-rich, dynamically provisioned and scaled run-time virtual server environment.***

Rational Software Delivery Services for Cloud Computing is based on IBM Smart Business Development and Test on the IBM Cloud—a security-rich, dynamically provisioned and scaled run-time virtual server environment. Delivered together, these services provide nearly everything you need to develop and test applications on a private cloud while helping developers, delivery professionals, testers and IT managers enhance their software development and delivery capabilities. Smart Business Development and Test on the IBM Cloud integrates with software delivery services and solutions from IBM to provide full ALM, which can be provisioned as a service on the cloud.

You can also leverage Rational Software Delivery Services for Cloud Computing in the IBM Smart Business Development and Test public cloud or engage IBM Global Technology Services to deliver the services in a private cloud on your premises with special cloud-based enablement services.

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## Highlights

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***Cloud services enable development and delivery teams to quickly gain the benefits of a collaborative application lifecycle management environment through self-service provisioning of server products.***

***Rational Software Delivery Services for Cloud Computing dramatically reduces the up-front costs of deploying an ALM platform.***

### **Why leverage Rational Software Delivery Services for Cloud Computing?**

- *Set up and tear down development and test environments rapidly*
- *Learn how to use the cloud faster*
- *Count on IBM support from your day one launch through project completion*
- *Leverage prescriptive best practices*
- *Customize environments on the fly to meet your specific needs*
- *Gain peace of mind with enhanced application-level security*

### **Standardizing and centralizing application lifecycle management**

Rational Software Delivery Services for Cloud Computing provides a comprehensive, “instant on” collaborative environment for software and systems delivery in enterprises. The services enable development and delivery teams to instantly gain the benefits of an integrated collaborative application lifecycle management environment through self-service provisioning of server products. As a result, teams can have development and delivery products up and running in minutes, and they can leverage the integrated products from the Rational suite and the Jazz platform for better collaboration.

In addition, Rational Software Delivery Services for Cloud Computing dramatically reduces the up-front costs of deploying an ALM platform. Using integrated, out-of-the-box virtual images based on best practices reduces labor and configuration costs. This can ultimately lower total cost of ownership (TCO) by reducing installation costs traditionally associated with new development and delivery projects.

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### Highlights

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***Using Rational Software Delivery Services for Cloud Computing, organizations can ultimately reduce risk and drive better governance via standardized services in a centralized development and test cloud.***

***The capability set supports industry standards and offers methodologies based on best practices.***

Further reducing TCO and increasing flexibility, Rational Software Delivery Services for Cloud Computing increases utilization of IT resources through a virtualized build, development and test infrastructure and dynamic resource provisioning. By using IBM services, organizations can better control costs, enhance quality management and improve performance monitoring—reducing risk and driving better governance via standardized services in a centralized development and test cloud.

Rational Software Delivery Services for Cloud Computing offers real value differentiators—such as industry standards and best practice methodologies—that developers, delivery professionals and IT managers can leverage. The IBM Rational Lab Services team can help identify and target the best workloads to deploy to the cloud and recognize areas where your organization will likely achieve the greatest ROI. The team can also help by providing metrics and assessments via systematic approaches—delivered in the Measured Capability Improvement Framework from IBM—to help drive greater value in software development and delivery. Moreover, you can leverage the breadth of knowledge of the IBM Global Technology Services group to speed setup and management of private cloud implementations.

A group of major financial institutions was struggling to provide resources to application developers and delivery professionals to keep up with demand for improved, innovative services. Increasing costs, manual processes, limited visibility into processes and collaboration via telephone all made it difficult to keep up with and support their organizations' needs. Working with IBM, these institutions gained a virtual loaner program within an IBM cloud computing center. They can now deploy an enterprise cloud to dynamically manage development and delivery resources and improve utilization of the infrastructure.



### **Concluding thoughts on the cloud**

Although the buzz around cloud computing can be confusing, by looking at it only through the lens in which you are interested—software development and delivery workloads—the concept and benefits become clear. A cloud provides developers and delivery professionals with a centralized, standardized ALM platform that can easily scale and change to address your specific needs at virtually any point in time. By approaching development and delivery in a cloud environment, teams can improve software quality, reduce costs and risks, speed time to market, and free developers and delivery professionals to focus on their core competencies.

### **For more information**

To learn more about IBM Rational Software Delivery Services for Cloud Computing, contact your IBM representative or IBM Business Partner, or visit:

[ibm.com/software/rational/announce/cloud-services](http://ibm.com/software/rational/announce/cloud-services)

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