



## Managing change in SAP: reducing cost and risk with IBM DevOps

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### Highlights

- IBM DevOps provides a flexible, collaborative approach to SAP delivery that supports continuous innovation and improvement across the SAP landscape
  - Time-to-value from change request to delivery is accelerated, helping achieve your business and IT objectives more quickly
  - Visibility is enhanced and change management is unified across both SAP and non-SAP landscapes
  - Co-development by IBM and SAP ensures tight integration and adoption of joint best practices
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Today's dynamic business environment requires continuous innovation and rapid response to market demands. Organizations that can effectively absorb change and build greater flexibility into their ways of working will be better placed to seize new opportunities and drive competitive advantage.

When your business runs on SAP, your success depends on how well you manage IT change. On top of routine maintenance activities, SAP landscapes are subject to shifting business conditions, such as acquisitions, new industry regulations and business process changes, which can considerably increase the dependent IT complexity. Your implementation teams need to deploy updates, changes, integrations and fixes continuously to both SAP and non-SAP environments – and do it all with limited resources and within ever-shrinking timeframes.

### Addressing the complexity of change

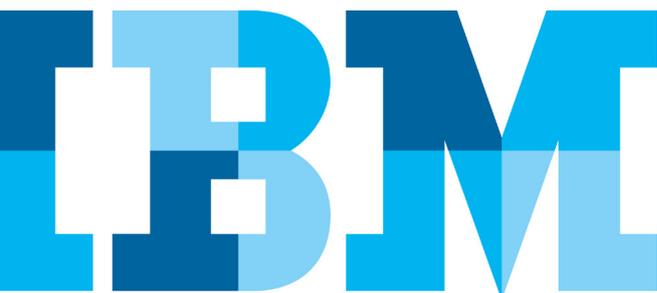
Keeping pace with constant change presents a significant challenge. Below are some of the top pain points reported by SAP customers around managing the SAP application lifecycle:

#### Time spent on upgrades and updates

SAP applications typically require a steady stream of upgrades, updates and bug fixes. Long change freeze periods and lengthy testing cycles can typically cause disruption to the business, and companies that fail to adequately test new releases risk exposing their business to potential application conflicts.

#### Managing requirements and testing change

When companies introduce new technology such as mobile apps, or upgrade their existing solutions, they must determine the potential impact on surrounding environments. Even minor alterations can require significant engagement with business stakeholders and partners as well as considerable testing.



### Integrating with non-SAP technology

As non-SAP products, applications and vendors are added to the IT landscape, companies must undertake extensive integration work and testing to ensure that all components function correctly. As the IT landscape grows in complexity, managing such cross-system integrations can be a difficult task.

### Collaborating with non-SAP teams

Where dependencies exist between SAP and non-SAP projects, SAP delivery teams must keep in sync with other teams' release cycles, enabling them to manage projects holistically. Without close collaboration and a shared toolset for change control, ad-hoc IT change or application releases can cause business disruption.

## Realize the full value of your investment in SAP with DevOps

Traditional approaches to SAP development, integration, management and delivery rely largely on manual processes. These can be error-prone and time-consuming, delaying response to business needs and IT change requests. Silos of processes, projects, people and tools can make it difficult to gain a clear view of systems and processes, or to align business and IT requirements. For organizations looking to improve the value delivered by SAP solutions, a more unified and flexible approach is needed.

IBM believes that the key to addressing these challenges lies in DevOps – a contraction of “development and operations”, the two teams that form the core of an organization's IT function. By bringing these teams closer together, and applying agile principles across the entire SAP delivery lifecycle, DevOps promotes continuous innovation, feedback and improvement. This can help development and operations teams boost productivity, improve the value delivered to users, accelerate delivery and reduce the cost and effort of IT change.

For SAP landscapes in particular – where change is often the only constant and complexity continues to increase over time – adopting a DevOps approach can be particularly beneficial. By enabling traceability and links between business planning, development, deployment, testing and monitoring, DevOps enables you to adapt your SAP landscape to market opportunities and reduce cost, risk and time to delivery.

## Supporting continuous delivery of SAP

As part of its approach to DevOps, IBM has outlined four key capabilities that are required to support continuous delivery of SAP. These capabilities are closely linked, with a continuous feedback loop that enables the business as well as developers and operations teams to learn and respond to end-user needs.

### 1. Plan and measure

Organizations capture business process changes, often in SAP Solution Manager, and define the business case or goals for IT delivery projects within the scope of the overall business strategy. Once projects are executed, changes and scope need to be managed in the context of the IT environment and aligned with broader business goals. To achieve this, you need a big-picture view of your existing SAP and ERP applications. This will allow you to visualize and analyze your business requirements, and to plan and communicate any IT changes, upgrades or deployments.

The [Enterprise Planning for SAP](#) offering from IBM® Rational® helps you to achieve a clear understanding of your existing environment and potential ROI so you can make smarter plans for the future and better predict the impact of change.

### 2. Develop and test

As the complexity of change increases, agile delivery of SAP development and testing is emerging as a way to address the need for accelerated and continuous feedback with the business. Updates, fixes, process changes, extensions, integrations and customizations can be provided on a

continuous basis for both SAP and non-SAP systems. The move to early feedback and continuous delivery requires greater maturity in the testing process, and this requires the introduction of continuous automated and manual performance, integration and mobile device testing. Uniting information from across the whole SAP development/test/deployment lifecycle begins to support improved collaboration.

The [Lifecycle Management for SAP](#), [Agile for SAP](#) and [Testing for SAP](#) offerings from IBM Rational provide a solid SAP development and testing strategy, helping ensure that your teams stay productive, removing unnecessary project risk and reducing the cost and risk of SAP development and testing.

### 3. Release and deploy

By harnessing the power of continuous delivery, you can make the deployment of SAP and dependent non-SAP systems faster and more robust. Automated, repeatable deployment processes, managed in a collaborative environment, eliminate errors and rework. This improves application delivery and shortens time-to-value, which in turn drives down operating costs and reduces business risk. Deployments and middleware configurations are automated and (if required) can mature into a self-service model providing individual developers, teams, testers and deployment managers with the ability to continuously build, provision, deploy, test and promote SAP updates.

The [Deployment for SAP](#) offering from IBM Rational provides infrastructure and middleware provisioning and automated self-service capabilities to co-ordinate both SAP and dependent non-SAP systems.

### 4. Monitor and optimize

Your teams need to understand the performance and availability of SAP applications and systems at all times. If a failure occurs or a bottleneck emerges, you need to be able to

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*“Our collaboration with IBM Rational brings together the best of our combined application lifecycle management market leadership and can help customers reduce costs, manage change, and improve quality across the enterprise applications lifecycle.”*

– Uwe Hommel, Executive Vice President, SAP

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identify the source of the problem and take remedial action fast to avoid business disruption.

With the [Lifecycle Management for SAP](#) offering and the [Monitoring for SAP](#) offering, monitoring is performed within the context of SAP applications. Optimization to achieve key performance indicators that reflect business value can become part of your program for continuous improvement.

### Reaping the benefits

By uniting the people, practices, technologies and information that support your SAP implementation and change projects, DevOps helps you promote a culture of continuous innovation and improvement, and can offer significant competitive advantage to your business:

#### Cut costs

A DevOps approach promotes a leaner approach to SAP development and delivery that reduces waste and rework, and allows you to use existing resources more efficiently. By advocating extensive use of automation and virtualization capabilities, DevOps for SAP makes it easy to set up new SAP development, test and production environments for your teams and partners, saving time and money.

## Reduce risk

As your enterprise application environment becomes more complex, DevOps can help to reduce the risk of business disruption. With a better view of your IT landscape and dependencies between processes and systems, you can better manage the impact of IT change on the business.

Comprehensive analysis and frequent integration testing helps you adopt a more proactive approach to change management, ensuring that new releases do not cause unexpected conflicts.

## Accelerate delivery

Your SAP teams are constantly being asked to shorten delivery cycles. With DevOps, you can apply a fast, iterative approach to upgrades, updates, integration, development, testing and deployment that helps you keep up with changes to the business and your SAP environment. A faster time-to-value for process changes and releases helps ensure that your business can readily take advantage of new SAP features and optimizations, and gives your business a fast-mover advantage to rapidly seize market opportunities and gain an edge on the competition.

## Take control of change with a co-developed solution from IBM and SAP

Building on the DevOps approach, IBM and SAP have come together to help customers overcome the challenge of managing risk and change to SAP landscapes. IBM Rational solutions for SAP have been designed to help optimize enterprise planning, lifecycle management, quality management, development, testing and change management for both SAP and non-SAP applications.

IBM Rational solutions for SAP enable all participants — business teams; architects, developers, and testers; and IT operations and production — to engage throughout the SAP implementation and change lifecycle, and align themselves with a single, shared goal: sustained innovation, fueled by continuous delivery and shaped by continuous feedback.

Thanks to the close collaboration between IBM and SAP, you benefit from extensive integration and a powerful blend of IBM and SAP best practices and technology that help to connect your delivery resources and make SAP solutions easier to plan, deploy and maintain.

## For more information

To learn more about IBM Rational solutions for SAP, please contact your IBM representative or IBM Business Partner, or visit the following website:

[ibm.com/software/rational/solutions/sap](http://ibm.com/software/rational/solutions/sap)

To learn more about IBM DevOps solutions, visit:

[ibm.com/software/rational/devops](http://ibm.com/software/rational/devops)



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