



JBoss PROVISIONING AND DEPLOYMENT WITH JBoss MANAGED SOLUTIONS

JBoss® Operations Network (JBoss ON) from Red Hat is a key component of JBoss managed solutions and provides a single point of control to deploy, manage, and monitor an organization's JBoss Enterprise Middleware, applications, and services. JBoss Operations Network enables organizations to simplify application release management, support IT governance objectives, and ensure application service levels for performance and availability.

PROVISIONING AND DEPLOYMENT CHALLENGES

Provisioning application middleware and deploying new applications and updates are ongoing, time-consuming, and labor-intensive tasks. This presents many challenges, including:

- Managing application server inventory and knowing which applications are deployed and where
- Managing content–application data and configurations–across multiple applications and versions
- Maintaining consistency across different environments
- Assessing the impact of deployments and upgrades on application performance
- Maintaining an audit trail of deployments and rolling back changes if needed

Performed manually, each of these tasks is not only time consuming, but opens the opportunity for errors, which increases the time and costs of deployment.

JBoss Operations Network provides a central tool to automate and control the tasks required to provision middleware and applications across an enterprise environment. JBoss Operations Network can help make the scaling of this task across large environments repeatable, auditable, and error-free.

DIY PROVISIONING

Many organizations attempt to manually provision their middleware and applications by building in-house provisioning scripts in order to save money and customize a solution to fit their present needs. But a closer look at these do-it-yourself (DIY) solutions reveals that many of these approaches are surprisingly costly, limited, and error-prone—creating issues for IT organizations and the business as a whole.

The cost to create, maintain, and support provisioning and deployment scripts can run into the six or seven figures for many organizations. Where does that money go? For starters, just do a simple count of the number of employees dedicated to the ongoing configuration, installation, and deployment of applications. Then add in the opportunity cost of not having these resources deployed on higher-value activities.

Another cost to consider is that of unexpected downtime during application deployments and upgrades. These outages are often traced back to human errors caused by manual installation or out-of-date deployment scripts. Many DIY approaches also lack crucial audit abilities and rollback features that can quickly identify problems with a new deployment or return an application to a previous functioning state.

JBoss Operations Network FOR PROVISIONING AND DEPLOYMENT

JBoss Operations Network provides a simple web-based interface (and powerful command-line API) that allows administrators to securely and repeatedly provision new applications with a few clicks or simple commands. It allows administrators to track how new applications perform, or how new versions perform relative to prior versions, and easily roll them back when necessary. This eliminates the repeated ‘who knows how to build this?’ question and trial-and-error approaches. That’s the real value when organizations manage the overall process of provisioning and deployment using JBoss Operations Network.

JBoss Operations Network:

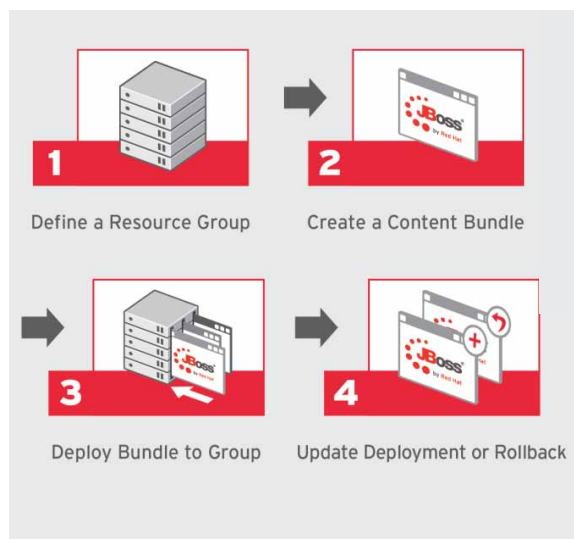


Figure 1.1: Provisioning and deployment with JBoss Operations Network

How it works:

Using JBoss Operations Network, administrators can provision JBoss Enterprise Middleware environments or deploy applications and their requisite content and configurations. This process starts with defining a resource group of platforms or servers that you will deploy to as shown in figure 1.1. JBoss Operations Network enables you to deploy to a group of machines or virtual guests of any operating system or to a group of JBoss servers. JBoss Operations

Network maintains an up-to-date inventory of all application resources and administrators can collectively manage groups of these resources as a single unit. This enables administrators to deploy content to multiple platforms or servers at once (even in multiple physical locations)—all from a single point of control.

The next step is the construction of an application bundle. Each bundle is versioned and will include an archive of all the files required for the deployment, as well as a ‘recipe’ file that controls the deployment and allows the administrator to parameterize deployment metadata. As new versions of a bundle are created, administrators can easily update existing implementations or roll back to a previous, trusted version. Once a bundle is complete, it can be deployed to a resource group.

Once deployed, JBoss Operations Network maintains a detailed audit trail of all deployments, allowing administrators to manage multiple versions or applications in separate environments, and if necessary, easily roll back to previous versions. This audit trail also lets administrators assess the impact of application deployments on historical application performance, giving a visual performance history relative to an application deployment.

This is the real value: using powerful, scalable provisioning to support applications throughout the lifecycle, including moving applications, updates, and patches through development and testing and into production with complete consistency. Administrators can also view a display of system and application performance history and gain a clear picture of how every change has impacted performance and availability.

A recent IDC study¹ concluded that organizations that have implemented JBoss Operations Network to manage their JBoss Enterprise Middleware and applications achieved multiple benefits including IT efficiency increases and operational cost and application downtime reductions. Customers saw a savings of 83 percent of top-line revenue previously lost from application downtime. Overall, those organizations saw a staggering 634 percent return on investment (ROI) with payback in less than six months.

¹ “JBoss Operations Network: Measuring Business Impact and ROI”, IDC White Paper #224332, Tim Grieser and Randy Perry, August 2010.



MANAGE MORE, STRESS LESS

With JBoss Operations Network, a single administrator can provision and manage many more application environments than could be handled manually or with DIY approaches. The JBoss Operations Network approach reduces staff requirements, provides higher application uptime, and creates an application lifecycle consistency that is virtually impossible to achieve without JBoss Operations Network's clear and automated approach. Organizations seeking to simplify application release management and reduce application downtime will find that JBoss Operations Network's approach and tools can pay off in less than six months.

JBoss Operations Network is an integrated component of JBoss Managed Solutions from Red Hat and is also available to purchase as a stand-alone offering.

FIND OUT MORE

To learn more about JBoss Operations Network, visit www.redhat.com/jboss_on or contact a Red Hat sales representative.

For more information on the IDC report referenced in this brief, visit <https://inquiries.redhat.com/go/redhat/jon-roi>.

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