

# JBoss OPERATIONS NETWORK (JBoss ON)

## ACCELERATING YOUR JBOSS PLATFORM

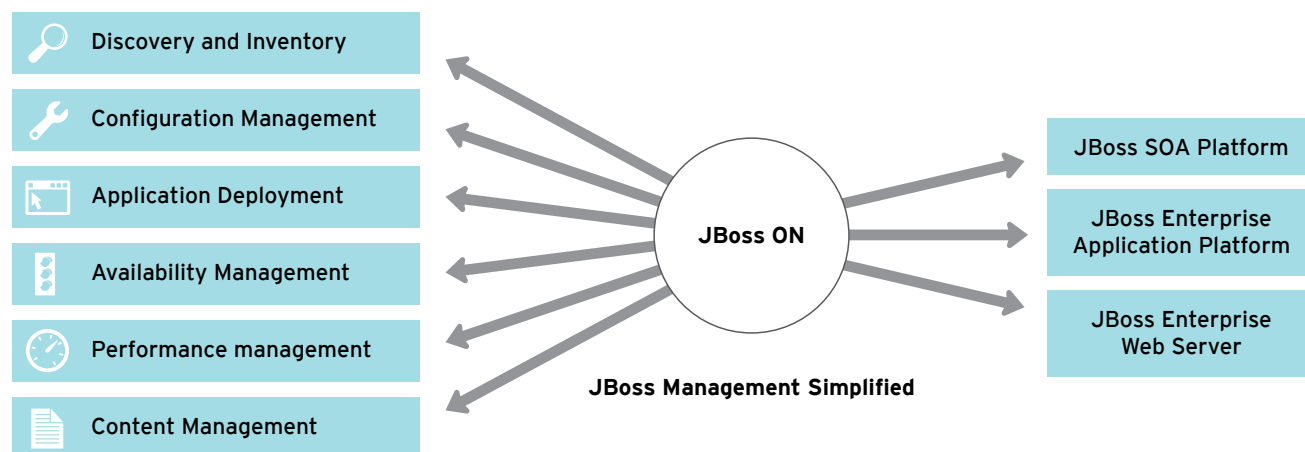
### WHAT IS IT?

An integrated management platform that simplifies the development, testing, deployment, and monitoring of your application lifecycle. JBoss Operations Network (JBoss ON) provides management of JBoss SOA Platform (SOA-P), JBoss Enterprise Application Platform (EAP), and JBoss Enterprise Web Server (EWS) and the applications that run on them. JBoss ON provides an integrated view of your JBoss middleware infrastructure, JBoss middleware applications, operating system, and web tiers. Altogether, JBoss ON Server, agents, and modules provide you with an end-to-end application management solution. JBoss ON gives you a centralized, end-to-end application management solution.

### WHAT DOES IT DO?

With JBoss ON, you can auto-discover resources that span from the operating system to application server to enterprise service bus to applications across the JBoss middleware tier. Centrally control and audit your application configurations to standardize deployments. Manage, monitor, and tune your applications for improved performance and availability. Continually capture performance metrics of application resources and get alerted on presets or custom threshold violations and operating conditions.

### JBoss ON



**JBOSS OPERATIONS NETWORK DASHBOARD**

The screenshot displays the JBoss Operations Network (JON) interface. On the left is a tree view of the system hierarchy, including 'Banking Server 1' and 'JBoss SOA Platform'. The main panel shows details for 'Banking Server 1 > JBoss SOA Platform'. The 'Summary' tab is active, displaying the following information:

- Type:** JBossAS Server (Server)
- Version:** 4.3.0.GA\_CP01\_SOA\_STANDALONE
- Version Name:** SOA\_STANDALONE
- Build Date:** April 7 2009
- Description:** JBoss Application Server
- Parent:** Linux 'Banking Server 1'
- Start Date:** Wed May 06 14:59:26 GMT-05:00 2009

Below the summary, there are several monitoring sections:

- Recent Measurements:**
  - Active Thread Count: 69
  - Active Thread Group Count: 11
  - JVM Free Memory: 75.5MB
  - JVM Max Memory: 701.0625MB
  - JVM Total Memory: 134.8125MB
  - Total Transactions: 0
  - Total Transactions per Minute: 0
  - Transactions Committed: 0
  - Transactions Committed per Minute: 0
  - Transactions Rolledback: 0
  - Transactions Rolledback per Minute: 0
- Recent Configuration Updates:** No configuration change history.
- Recent Operations:** No recent operation history.
- Recent Event Counts:** No events in the last 24 hours.
- Recent Alerts:** No recent alerts.
- Recent Out of Bound metrics:** No OOB conditions found.
- Recent Package History:**
  - hibernate-entitymanager.jar: 04:07 PM EDT
  - scheduler-plugin.jar: 04:07 PM EDT
  - jboss-hibernate.jar: 04:07 PM EDT
  - jboss-jsr77.jar: 04:07 PM EDT
  - hibernate-validator.jar: 04:07 PM EDT

A context menu is open over the 'DataCollectorService Service' in the tree view, showing options: 'View Metric Chart', 'Execute Operation', and 'Reset the message counter'.

## WHY SHOULD I CARE?

The application management lifecycle can be difficult to manage, but JBoss ON enables easy management of an enterprise application environment. Application developers, administrators, and operations managers deal with complexity when working with multi-tier applications that run on web servers, application servers, and enterprise service bus. With JBoss ON they can do consistent application deployments and configurations that result in a more secure environment and better application performance. Get visibility into your application's health and generate diagnostic and historical data that drives improvements or resolves technical issues. And JBoss ON's open standards support and plug-in framework means that your application management platform is extensible, customizable, and future-proofed. JBoss ON delivers operational dependability and manageability with the reduced costs of open source. With JBoss ON's plug-in architecture, JBoss ON plug-in packs for EAP, SOA-P, and EWS can be individually added to the JBoss ON management server to control and manage one or all application tiers from a single JBoss ON console.

## OVERVIEW

The JBoss Operations Network (ON) management platform (server-agent) delivers centralized systems management for the JBoss Middleware product suite. For each JBoss middleware product (such as EWS, EAP, and SOA-P), a separate JBoss ON plug-in pack is available. Using the appropriate plug-in pack, coordinate the many stages of application lifecycle and expose a cohesive view of your middleware components through complex environments. Improve operational efficiency and reliability through thorough visibility into production availability and performance, and effectively manage configuration and roll-out of new applications across complex environments with a single, integrated tool.

The JBoss ON Server, agents, and modules deliver inventorying, administration, deployment, and updating of JBoss-based middleware applications through a centrally managed model. Enterprise access control offers the necessary levels of visibility, access, and auditing to maintain systems and share vital information and statistics through diverse teams. A customizable portal offers critical information quickly to the right audiences.

And because it's fully integrated with JBoss Operations Network, you can perform control actions such as starting, stopping, or re-starting applications or servers--all through the same console.

With JBoss ON, you can:

- Auto-discover application resources: operating systems, applications, and services.
- From one console, store, edit, and set application configurations.
- Start, stop, or schedule an action on an application resource.
- Remotely deploy applications.
- Monitor and collect metric data for a particular platform, server, or service.
- Alert support personnel based upon application alert conditions.
- Assign roles for users to enable fine-grained access control to JBoss ON services.

## JBOSS ON SERVER AND MODULES

### JBoss ON Server

The JBoss ON Server is the command center for managing your JBoss middleware environment. The JBoss ON Server provides a rich AJAX-based graphical interface as your management console. The JBoss ON Server acts as the central messaging bus for all monitoring, inventory, and control events with full audit capabilities. It also manages the triggers and actions used for alerting.

JBoss ON Server provides:

- Custom dashboards
- User logins authenticated through LDAP
- Roles for fine-grained administrative access control
- Server API spans across all supported modules
- Remote API accessible via SOAP and Java clients
- Extensive secure CLI support

### Inventory module

The Inventory module catalogs IT assets spanning platforms (Linux, HP-UX, Solaris, Windows, AIX), servers (JBoss EWS, EAP, SOA-P), and services (EJB, Message Driven Beans, data sources, ESB services). A central repository of resources that JBoss ON manages and monitors is generated from information collected by the agents. Creation of logical topologies made up of resources can now provide improved visibility and control of your business applications (versions and dependencies).

The Inventory module allows:

- Auto-discovery by agent or manual discovery options
- Discovery by file scan, registry scan, or process table scan
- Resources organized in logical groups and logical topologies
- Dynamic resource groups based on rules

### Administration module

The Administration module provides a single location for performing key control functions. Functions can be ordered, initiated on-demand, or scheduled for a later time for logical groups of components. And an audit trail ensures that you'll know whenever any administration functions take place and by whom.

The Administration module provides many features, including:

- The capability to start, stop, and re-start applications across the JBoss middleware platform
- Low-level access to all configuration files, individually or as groups
- Operations can be triggered by events
- Versioning for configuration files
- Schedule operations in parallel or in serial (rolling) format
- Roll-back to previous versions



## Content module

The Content module pro-actively notifies subscribers of new patches and software updates relevant to their environment. Updates can now be handled in a much more organized and timely manner through scheduling and version control. And all activities can be audited for compliance purposes.

With Content module:

- Updates can be reviewed, rejected, or applied
- Updates can be applied to individual components
- Version control and roll-back for application deployment

## Monitoring module

JBoss ON's monitoring solution has advanced monitoring capabilities for the complete line of JBoss Middleware products, related operating system, and web-tier resources. The JBoss ON Monitoring module allows you to improve the operational efficiency of your JBoss middleware infrastructure. You can identify issues before your customers tell you about them, predict potential problems before they even occur, and pinpoint the exact cause for the issue more quickly and accurately. All in all, you can minimize downtime and the costs associated with downtime like lost revenue and unsatisfied customers. The monitoring module is fully integrated within the larger JBoss ON platform and is constantly building and updating a model of behavior for each and every measurement collected by the agents. This allows you to define alerts relevant to the actual

behavior of your infrastructure. Baselines detect out-of-band problems, allowing you to quickly identify resources that require attention. In addition, this provides a historical view of what was happening at the time of the fault. JBoss ON Monitoring allows you to define alerts based upon pre-defined thresholds and, if desired, automate control actions to correct faults. Graphing and charting capabilities like trend analysis are also included. A full audit trail of alerts is maintained for compliance purposes.

The Monitoring module provides:

- Pre-selected, configurable, and custom statistics
- Alerts (currently SMTP/email alerts)
- Configurable data storage
- Initiate control actions on alerts
- Baseline measurements and problem detection
- Full alert audit trail
- File system monitoring





## SUPPORTED PLATFORMS

HARDWARE	ARCHITECTURE	OPERATING SYSTEM
Intel / AMD	x86_32 and x86_64	Red Hat Enterprise Linux AS 2.1 and higher
Intel / AMD	x86_32 and x86_64	Microsoft Windows (XP, 2000, 2003, Vista)
Intel / AMD	x86_32, x86_64, and SPARC	Various – Solaris (8, 9, 10), SuSE (8, 9, 10)
IBM	32-bit	AIX 5.2
HP	PA, Itanium	HP-UX 11.x

Note: other platforms that support Java5 require that native support be disabled.  
Java: JDK 5 on server and agents

## SYSTEM REQUIREMENTS

Memory	512 MB minimum, 1 GB maximum
Storage	10 GB minimum, 40 GB maximum
External Database	Postgres 8.2.4 and higher, Oracle 10g and 10gR2

## SUPPORTED SERVERS

SERVER/PLATFORM	VERSION
JBoss Application Server	4.x
JBoss Enterprise Application Platform	4.2, 4.3, 5.0
JBoss Enterprise Web Server	1.0

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