

# ON-PREMISE OR IN THE CLOUD, A SINGLE JAVA EE APPLICATION PLATFORM

## TECHNOLOGY OVERVIEW

### FEATURES

- Fully certified Java EE 6 container
- Full web services stack
- Modular architecture optimized for cloud and virtual environments
- Enterprise capabilities such as failover, caching, intelligent load balancing, and distributed deployment
- Rich developer and management functionality and tooling

### BENEFITS

- Deploy new business value, faster with accelerated time-to-market
- Boosted developer productivity
- Flexible manageability
- Fully supported Java EE development and deployment in the cloud
- Agility to quickly reinvent and update your systems of engagement

### INTRODUCTION

Red Hat® JBoss® Enterprise Application Platform (JBoss EAP) is the market-leading open source platform for next-generation Java™ applications.<sup>1</sup> JBoss EAP supports a wide range of Java applications, from HTML5 mobile applications to highly transactional applications that use the Java Enterprise Edition (Java EE) programming approach.

### MORE DEMANDS, MORE APPS, LESS TIME

Globalization and localized business changes have increased requirements for new applications that extend the reach of enterprises into new markets and geographies. This has also increased demand for the rapid development of highly scalable applications. Application development and the infrastructure that supports applications are facing new challenges, including demands to:

- **Deploy new business value, faster.** Increasing competitiveness has made shorter time-to-market the highest priority for many organizations. While total cost of ownership (TCO) is still important, the cost of not responding quickly enough to deliver new business value has significantly more expensive consequences.
- **Support new cloud architectures and deployment patterns.** The idea of an open, hybrid cloud environment is prompting many enterprises to reconsider where and how applications are hosted. This challenge means that organizations may need to evolve existing application infrastructures to more modern and cloud-friendly platforms.
- **Reinvent systems of engagement.** Today, customers are choosing to do business with the company that makes business easiest. As a result, many organizations are looking to reimagine and reinvent their systems of engagement, including improving integration between customer channels, supporting many user interfaces (browser, mobile, telephone, retail), and giving customers and business partners the ability and tools needed to support themselves.
- **Change the role of application developers.** As organizations adjust to new business demands, how applications are built and delivered is also changing. Developers today are required to acquire new skills and perform tasks that were historically handed off to others, including supporting and even administering applications. These changes require an application development platform that provides the greatest boost in productivity and also supports development of new applications used in open hybrid cloud environments.



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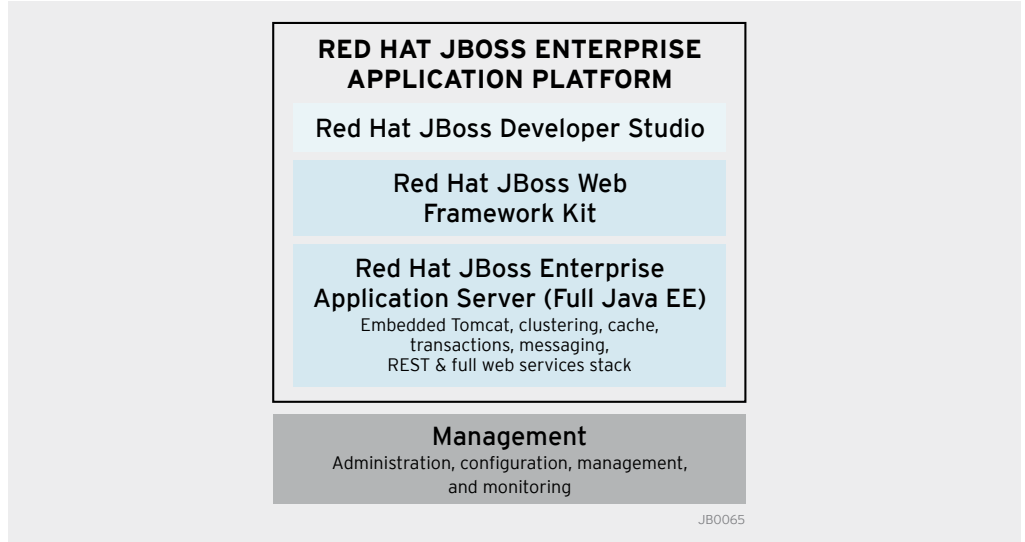
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<sup>1</sup> <https://engage.redhat.com/content/jboss-gartner-quadrant-201310110210s>

*“JBoss EAP 6 has a rare combination of qualities that should drive high levels of customer satisfaction across multiple dimensions, thereby ensuring compelling business value.”*

HOW RED HAT'S JBOSS ENTERPRISE APPLICATION PLATFORM 6 IS EXTENDING BUSINESS VALUE, IDC, 2013

## PRODUCT COMPONENTS



Red Hat JBoss EAP is a fully certified Java EE 6 container and includes everything needed to build, run, and manage Java-based services on-premise or in Platform-as-a-Service (PaaS) environments. JBoss EAP is based on the leading open source Wildfly project (formerly known as the JBoss Application Server project) and adds enterprise features for clustering, caching, messaging, transactions, and a full web services stack. A subscription to JBoss EAP also includes entitlements to Red Hat JBoss Developer Studio and Red Hat JBoss Web Framework Kit, which can improve developer productivity and choice.

## FEATURES AND BENEFITS

### CLOUD-READY ARCHITECTURE

JBoss EAP 6 was created with cloud in mind from the very beginning. In fact, it is the first Java EE server offered in PaaS architectures (including OpenShift by Red Hat).

**Updated modular architecture:** Red Hat JBoss EAP 6 is based on a services-driven set of components that greatly simplifies how applications can be deployed in different environments.

**Highly efficient:** JBoss EAP 6 has been optimized to perform in any environment—multi-core, virtual, or cloud. The result? An extremely low memory footprint, blazing fast start-up times, efficient resource utilization, and port management. JBoss EAP simplifies the effort required to deploy in any environment.

## FLEXIBLE MANAGEABILITY

Today, many enterprises avoid rigid and complex management solutions. Instead, they seek solutions that provide seamless integration with the private cloud and give them the ability to programmatically manage their applications, automate these processes as they build, and integrate with their own management tools and technologies.

## WORLD-CLASS DEVELOPER PRODUCTIVITY

Proprietary, bloated software requires developers to master steep learning curves and wait through long reboot cycles. With the support for Java EE and other popular frameworks, as well as the latest JBoss tools for continuous development, integration, and deployment, JBoss EAP allows developers to be more productive and responsive than ever. With JBoss EAP, developers finally have the ability to keep pace with rapid line-of-business requests for new and updated applications.

**Support for Java EE 6 and other popular frameworks:** With a focus on maximizing developer productivity, JBoss EAP 6 supports the Java EE 6 standard and a wide range of Java virtual machine (JVM)-based frameworks including Spring, Struts, and Google Web Toolkit (GWT).

**Launch applications fast in OpenShift Enterprise:** With JBoss EAP for OpenShift Enterprise, developers can prototype quickly and get to market faster without worrying about getting the right environments up and running. The self-service interface of OpenShift Enterprise boosts productivity and accelerates innovation in application design and delivery with self-service application provisioning, simplified stack management, and application auto-scaling.

## ENTERPRISE PERFORMANCE

Gain the flexibility to innovate and quickly respond to changing business environments without sacrificing enterprise performance, stability, and security. JBoss EAP 6 combines the extensibility of Java EE 6, the latest open standards, and enterprise features such as failover, caching, intelligent load balancing, and distributed deployment. Performance-tuned for highly transactional applications, JBoss EAP 6 allows you to innovate and meet strict compliance, security, and regulatory requirements simultaneously.

## DEVOPS ENVIRONMENTS WITH CONTINUOUS DEVELOPMENT, TESTING, AND INTEGRATION

JBoss EAP allows you to bring your development and operations teams closer together. JBoss EAP offers the latest components for continuous test and development capabilities through Arquillian. With Arquillian, you can run real integration tests with ease. And with Maven for automated and managed build processes and Jenkins for continuous integration, JBoss EAP can help your organization implement a DevOps approach and deliver applications to market faster.

## ADDITIONAL RESOURCES

Download Red Hat JBoss Enterprise Application Platform. All of our products are open source, which means you can install them, run a demo, and develop a proof-of-concept. Eliminate risk by trying the software before you buy.

Learn more: <http://www.jboss.org/products/eap/overview/>

Explore a rich library of resources. Get up to speed fast by viewing a webinar, trying out a tutorial, or watching a demo.

Learn more: <http://www.jboss.org/products/eap/resources/>

Get involved. Open source software belongs to you. Blog, join a user group, contribute code, or test upcoming releases.

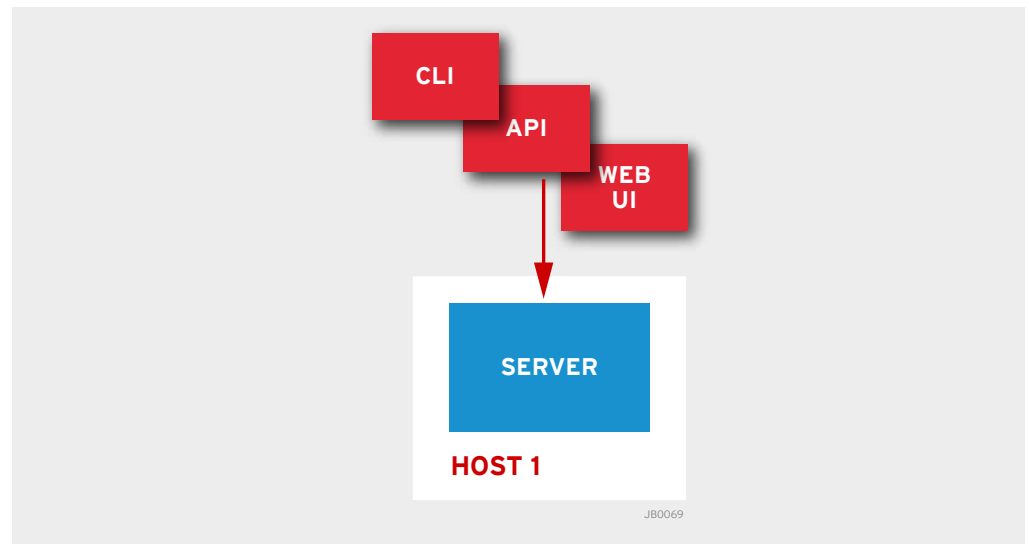
Learn more: <http://www.jboss.org/products/eap/community/>

## TECHNICAL HIGHLIGHTS

### OPERATING MODES

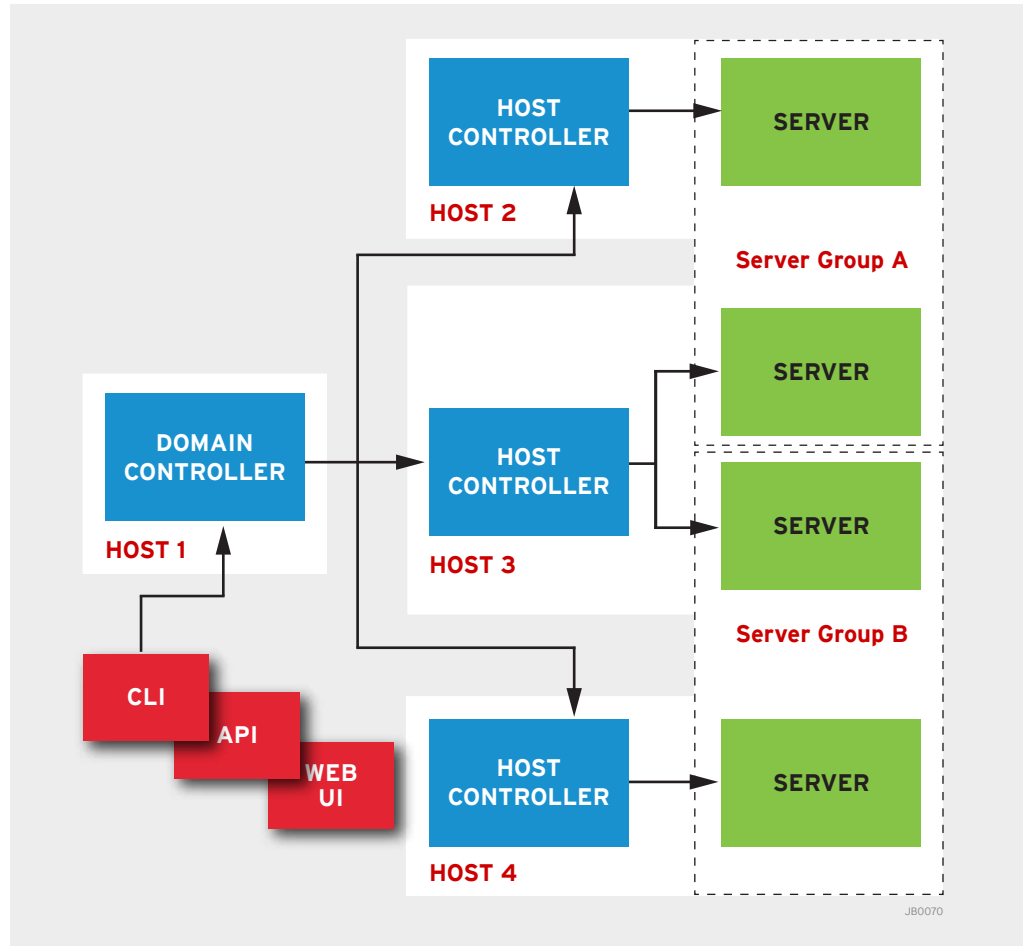
JBoss EAP offers two different operating modes, standalone and domain.

### STANDALONE SERVER MODE



Standalone server mode is an independent process that allows you to run a single instance of JBoss EAP. You can also run instances of JBoss EAP in standalone mode in a clustered configuration.

MANAGED DOMAIN MODE



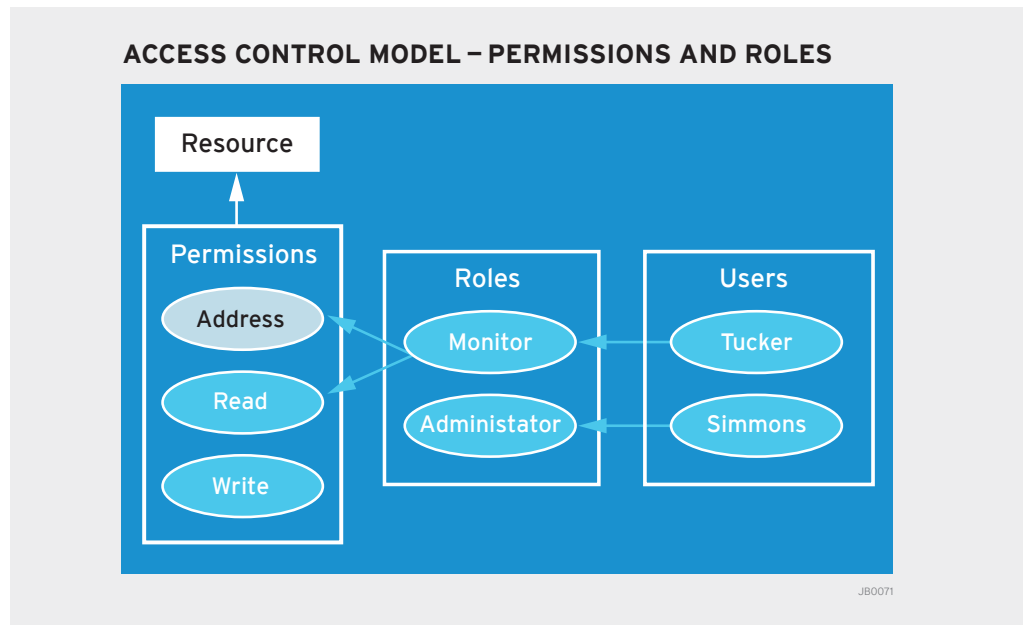
The managed domain mode of JBoss EAP allows you to easily scale administrative and management actions across many applications and servers. From a single point of control through the domain controller, you can deploy new host controllers and servers, update security configurations, apply management policies, and more.

**MANAGEMENT INTERFACES**

With JBoss EAP, you can access the management APIs via multiple management tools, allowing you to configure and administer your applications however best fits your requirements. These include the management console web interface and the management command-line interface (CLI). Or you can edit XML configuration files directly.

And with Red Hat JBoss Operations Network, you have a single point of control to deploy, manage, and monitor Red Hat JBoss Middleware applications. The built-in management and monitoring tooling allows you to effectively administer all your Red Hat JBoss Middleware application environments, helping you improve operational efficiency, reduce costs, and ensure a positive experience for your users.

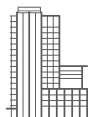
ROLE-BASED ACCESS CONTROL



JBoss EAP allows you to have granular, role-based access control over who is authorized to perform certain administrative and management functions. Assign your users and groups a role, which defines what permissions they are allowed and what resources they have access to. Tweak the role further to determine what additional applications, sensitive resources, or vault access they may be allowed to have. With the console providing a centralized management for defining role-based access, you can gain a higher level of security for your application infrastructure with fewer errors and less downtime.

**INTEGRATED DEVELOPER ENVIRONMENT**

Included with a JBoss Enterprise Application Platform subscription is Red Hat JBoss Developer Studio, an Eclipse-based integrated developer environment (IDE) bundled with tools for developing, testing, and deploying rich web applications, enterprise applications, and service-oriented architecture (SOA) services. There is no need to buy multiple subscriptions to build and test on Red Hat JBoss Middleware products or pay production service-level agreements (SLAs) to get support. It's all included.



#### ABOUT RED HAT

Red Hat is the world's leading provider of open source solutions, using a community-powered approach to provide reliable and high-performing cloud, virtualization, storage, Linux, and middleware technologies. Red Hat also offers award-winning support, training, and consulting services. Red Hat is an S&P company with more than 80 offices spanning the globe, empowering its customers' businesses.



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