

Are you looking at open source-based application servers?

Ask the right questions and do the math when comparing IBM WebSphere Application Server to JBoss Application Server





Highlights

Choosing IBM WebSphere Application Server over JBoss Application Server is as easy as 1, 2, 3:

1. Highly Effective Performance
2. Application Innovation
3. Efficient Management

Overview

Succeeding in today's smarter world not only means utilizing technology to create intelligent, instrumented and interconnected solutions, but leveraging that technology to optimize costs and do more with less. Subsequently, determining the lowest cost solution isn't simply a matter of comparing two vendors' prices, but assessing how the technology and features provided by those solutions can influence their total cost of ownership. The right solution will not only have the lowest cost, but keep your applications running smoother and help you meet your IT objectives.

With ever-increasing pressure to reduce costs, many companies are specifically looking to open source as a way to save money, which might mean considering a JBoss Application Server by Red Hat. Open source application servers can certainly be cost-effective solutions in single server environments

running one or two web applications. In these cases cost and simplicity are key considerations and security, scalability and manageability are less critical. For these scenarios IBM offers IBM® WebSphere® Application Server (WAS) Community Edition (CE), an open source-based application server with no license costs.

However, for most environments consisting of multiple application servers in clusters, open source application servers can be significantly more costly than their closed source counterparts. These environments, ranging from mid to large sizes and which often support business critical and key company-wide Java™-based applications, can benefit from the highest qualities of service such as security, scalability, and manageability delivered through WebSphere Application Server Network Deployment v7. By contrast, using an open source application server such as JBoss Application Server in clustered environments can mean needing to hire additional, higher skilled administrators, suffering from insufficient performance and scalability, struggling with insufficient documentation, dealing with cumbersome security, or not having access to the latest innovation and technologies, all of which can significantly increase total cost of ownership and negatively impact your business success.



While JBoss may tempt customers with its lack of license fees, application servers have many other costs associated with them that can be easy to overlook and difficult to quantify. A recent study performed by Summa Technologies, however, showed that when these factors are taken into account, JBoss Enterprise Application Platform (EAP) v5 costs as much as 47 percent more than WAS v7 for medium and large configurations.

IBM WebSphere Application Server achieves its cost advantage over JBoss by delivering an effective and efficient application foundation that helps you meet business objectives at the lowest overall cost. First, WAS helps you drive customer satisfaction with highly effective performance, offering potentially faster transactions, less downtime, greater scalability and streamlined security. Second, it helps you reach customers in new ways by enabling application innovation that gives you more options in reusing existing applications as well as the ability to deploy the latest technologies without wholesale upgrades. Third, WAS helps reduce costs through efficient development and management with integrated and centralized tools that can reduce risk and lower labor costs as well as up-to-date and thorough documentation that can save you time and decrease uncertainty. This brochure describes how these three key attributes of IBM's application foundation help deliver higher operational efficiencies at a lower cost than JBoss, making IBM the clear choice for you and your customers.

1. Highly Effective Performance

Drive customer satisfaction with highly effective performance.

For mid- to large-sized business critical environments, IBM WebSphere's application foundation will help you deliver higher quality application performance, and an enhanced experience for customers that JBoss EAP v5 can't match. This not only means that your applications can run fast, but they can have higher availability, scalability and more dependable security. When your customers demand high performance and reliable applications, IBM is the clear choice over JBoss.

First, WAS offers one of the best performance values in the industry, helping you deliver responsive applications when performance matters. In fact, IBM was the first vendor to publish to the independent SPECjEnterprise2010 benchmark and currently leads the benchmark in performance (7,903 EjOPS on a cluster of 8 server nodes and 1,813.37 EjOPS on a single server node). JBoss, on the other hand, has never participated in SPECj benchmark testing.

In a study comparing the performance of WAS ND v7 and JBoss EAP v5, Summa Technologies found that WAS ND was more than 2.5 times faster than JBoss in JEE5 stack performance and more than three times faster in web services performance. With JBoss's slower performance, it's your customers who demand performance that get left behind, with less responsive applications that ultimately reflect poorly on IT.

IBM also provides superior scalability to JBoss, allowing you to spend less on additional hardware and software. If you need multiple processors to handle your transactions, this means real cost savings for you, because for a given workload on WAS, you will need less hardware than you would to run the same workload on JBoss. In fact, Summa Technologies found that JBoss can require as much as three times more hardware to run the same workload as WAS. With the extra hardware that JBoss requires comes more hardware support costs, more datacenter space, more power consumption, more OS licenses and support costs and more JBoss support subscriptions. Even at moderate workload volumes, these costs can be significant.

This brochure describes how the three key attributes of IBM's application foundation help deliver higher quality of service at a lower cost than JBoss, making IBM the clear choice for you and your customers.

For mission critical environments, IBM also delivers advanced, high availability features, like advanced clustering and data replication services with significantly enhanced reliability relative to JBoss, so you will experience less downtime and your customers will have continuous access to your applications. For example, according to Summa Technology's testing, JBoss EAP v5 requires customers to restart their http server in the case of cluster node failures and requires more frequent restarts of the application server for configuration changes and other administrative tasks than WAS. Additionally, IBM's internal testing has shown that JBoss does not ensure transaction integrity in many common failure scenarios, which

can lead to valuable data being lost. For example, consider the very real possibility of a network or power failure occurring as a banking customer is transferring funds from a checking account to a savings account. With JBoss, the customer's money might literally be lost as it could be withdrawn from the checking account and never deposited in the savings account due to the application server's inability to roll back a two-phase commit error. JBoss EAP v5 simply fails to deliver the robust environment that customers should demand for critical applications.

Finally, IBM WAS helps you avoid costly security exposures by providing granular and flexible control over security through a simple-to-use management tool helping you deliver more secure applications that are easily managed by production operations. In contrast, in its testing of JBoss, Summa Technologies found that due to defects in the JBoss Operations Network management software, many security management operations need to be performed by manually editing configuration files, a process that increases the risk of human error. JBoss also has numerous security vulnerabilities in its default configuration. Why put the burden of keeping your applications secure and your customers protected on your administrators when WAS provides complete and easily managed security out of the box?

When cost and simplicity are greater concerns than performance and availability, open source solutions, like WAS CE, can often meet your needs. In the majority of environments, however, when performance and qualities of service are critical to your business, why take a chance with JBoss when you can depend on the capabilities of WAS ND?



3. Efficient Management

Reduce costs with efficient management.

IBM's Application Foundation not only makes your applications more effective and innovative, but it also saves you money by enabling your employees to work smarter. In fact, according to Summa Technologies' analysis, JBoss can cost more than twice as much to manage compared to WAS ND v7. Many factors contribute to this difference, including high labor costs for administration of applications, which with JBoss can be more than three times more costly than IBM WAS ND v7. This stems from the fact that although JBoss EAP v5 now supports the JBoss Operations Network (JON) management tool, its capabilities are immature and lack the reliability of IBM's management tools. Subsequently, JBoss continues to lack reliable centralized management, necessitating manual editing of configuration files, often on each individual cluster member. Additionally, JON subscriptions must be purchased separately unless you are paying for support for at least 32 CPUs. WAS ND also provides LDAP, cache, and WLM servers at no additional charge, saving money and simplifying compatibility. JBoss requires that separate software be purchased for this functionality, further driving up costs. Additionally, according to the Summa study, as the size of a JBoss environment increases, the complexity of management drives overall costs higher, so when you should be realizing economies of scale, the cost of JBoss keeps going up.

WAS ND eases your management burden with a comprehensive set of tools for common administrative tasks such as backups, restores, cluster management and remote application deployment, making complicated administrative tasks far simpler to perform than JBoss. A JBoss solution will mean that

your team will spend valuable time and resources manually performing tasks or writing new scripts to address issues, all of which could be avoided with WAS ND's built-in functionality.

Finally, IBM reduces risk for your business and your customers, by providing accurate and well-written documentation that fully specifies compatibility requirements helping to lower staff training cost and avoid incompatibility. Summa's analysis found that JBoss EAP v5 is supported by limited documentation that is often outdated, frequently referring to JBoss EAP v4. JBoss documentation also does not adequately specify compatibility requirements with other software, driving users to a time consuming search of forums and wikis for evidence of implied compatibility. You can rely on IBM's clear documentation to avoid the costly downtime, tedious searches and unexpected incompatibilities that come from unnecessary guess work.

Conclusion

IBM's effective, efficient, and innovation-enabling WebSphere application foundation provides technology and features to create real value for both you and your customers, with the ability to deliver lower total cost of ownership than JBoss. With WAS ND as the foundation of your business critical application infrastructure, you can satisfy your customers with highly effective performance, reach them in new ways with the latest innovative applications, and reduce your costs with more efficient development and management. For less critical applications, open source-based WAS CE can meet your needs with no license fees. In today's smarter planet, lower costs are achieved with superior systems, and IBM and the WebSphere Application Server Family provide the agility, the technology and the simplicity to deliver a more robust and reliable application server at a lower cost than JBoss.

For more information

Experience the WebSphere advantage today by contacting your IBM WebSphere sales representative or business partner. To learn more about the differences between application servers download Summa's JBoss EAP v5 vs. WAS v7 total cost of ownership study at:

ibm.com/software/webservers/appserv/was

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