

TECHNOLOGY DETAIL

## COMMUNITY OR ENTERPRISE?

Choosing between JBoss community projects and Red Hat JBoss Middleware

*“With Red Hat Enterprise Linux and Red Hat JBoss Middleware, we are able to experience the benefits of open source combined with the support and uptime that we require.”*

BEVERLY JAMISON,  
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**RED HAT'S PROJECT-TO-PRODUCT PROCESS****PARTICIPATE**

- We participate in and create community-powered upstream projects.

**INTEGRATE**

- We integrate upstream projects, fostering open community platforms.

**STABILIZE**

- We commercialize these platforms together with a rich ecosystem of services and certifications.

**EXECUTIVE SUMMARY**

Red Hat® JBoss® Middleware takes the best projects and features from the JBoss community and other communities such as the Apache Software Foundation and integrates them into a broad portfolio of stable, supported middleware product offerings that are maintainable over the long-term. JBoss community projects can be downloaded by anyone at any stage of the software development process. These projects are used by developers to test and integrate middleware capabilities as a part of their application development efforts. However, due to their rapidly changing nature, lack of guaranteed support, lack of integration, and the unavailability of certified binary patches/updates, open source community projects are best suited for proof-of-concept and development projects. This paper explores the differences between JBoss community projects and Red Hat JBoss Middleware products. It explains how Red Hat JBoss Middleware delivers the benefits of open source software, combined with the additional testing, certification, and maintenance releases necessary for reliable long-term enterprise production use.

**JBOSS COMMUNITY PROJECTS**

The open source software community has become a major source of innovative middleware for the IT industry by allowing a wide variety of developers and organizations to develop in an open, collaborative manner. The result of that collaborative process is a set of open source projects with source code that is freely available for download, so users have the ability to explore, experiment, test, and provide feedback on the software's latest features. This process allows open source middleware to quickly incorporate innovation into each new release.

The JBoss community has been at the forefront of this revolution, leading the way with its JBoss Application Server community project.<sup>1</sup> The JBoss community has since expanded to include over 90 projects covering everything from enterprise service buses and rules engines, to mobile development and rich Internet application development frameworks, to data integration and management tools.

The combination of easy access, no perpetual license fees, and the usability of JBoss community projects has helped development teams get started quickly on new application initiatives without the need for other costly middleware investments. However, focusing only on the short-term savings from open source projects and ignoring the long-term risks and costs of deploying multiple unsupported, unconnected community projects into production can cause significant problems. The use of community project components places the burdens of component productization, integration, testing, and certification on the developer and user. It offers no guarantee of timely patches, the addition of required capabilities, platform certifications, attention to potential security issues, or intercomponent compatibility. IT organizations could incur significant costs related to unexpected downtime and additional developer hours required to self-support and maintain application platforms that have been cobbled together from multiple community projects.

So what is the best way to combine the innovation provided by the JBoss community with the testing, certification, and maintenance releases necessary for stable, reliable use of open source middleware in production? The answer is Red Hat JBoss Middleware.

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<sup>1</sup> JBoss Application Server community project is now called WildFly community project

## RED HAT JBOSS MIDDLEWARE – RECOMMENDED FOR PRODUCTION USE

Red Hat JBoss Middleware integrates the best projects and features in open source communities – including JBoss Developer, Apache Software Foundation, and more – into stable, supported middleware product offerings. These middleware products are rigorously tested and certified against multiple operating systems, Java virtual machines (JVMs), and databases, then made available via platform subscriptions that include patches and updates, service-level agreement (SLA)-based support, multi-year maintenance policies, and the Red Hat Open Source Assurance. Red Hat JBoss Middleware offers the best of both worlds: software developed by a vibrant open source community, with the testing, certification, documentation, training, and support that is expected from mature enterprise software products.

Red Hat JBoss Middleware is recommended for production use because of its long-term stability, supportability, and maintainability. Figure 1 contrasts community project release life cycles with enterprise platform release life cycles. Community projects are constantly evolving, with frequent releases that primarily focus on features and functionality for the next major version of an enterprise platform.

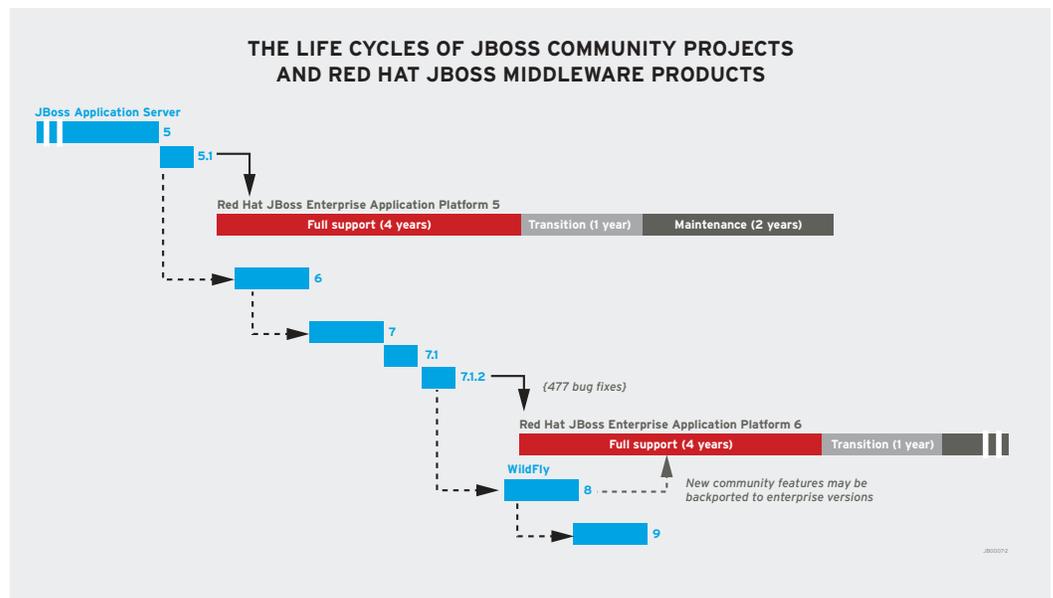


Figure 1. This simplified example compares how the JBoss Application Server project (now called the WildFly project) may contrast with future releases of Red Hat JBoss Enterprise Application Platform (JBoss EAP). Enterprise versions provide long-term support, regular releases including fixes, new features, and new platform certifications. Community project releases are not maintained or productized.

In some cases, a community project point version may be released to vet new features and fixes requested for a current enterprise platform version. For example, in Figure 1, WildFly 8 may have vetted features and fixes for Red Hat JBoss EAP 6.

But in all cases, once the community releases a new version, it completely stops work on it and focuses on the next version. New features and functionality may not be carried forward to the next community project version, and backwards compatibility is not ensured. There is also no

guarantee that community project versions, features, or functionality will ever make it into an enterprise platform. In fact, most community project versions become dead branches as soon as the next version is released.

In contrast, only Red Hat JBoss Middleware delivers long-term support, patches and updates, and backwards compatibility within the lifetime of each major platform release.

In addition to providing long-term stability, supportability, and maintainability, Red Hat JBoss Middleware helps increase productivity with tools for development, management, and monitoring across the breadth of the portfolio. Red Hat JBoss Developer Studio, an Eclipse-based developers' tool, provides a single integrated development environment for all Red Hat JBoss Middleware platforms. And Red Hat JBoss Operations Network, a comprehensive middleware management solution, provides IT operations staff with a single, easy-to-use tool to manage development, testing, deployment, and monitoring of Red Hat JBoss Middleware.

Using Red Hat JBoss Middleware in production reduces testing and validation time, minimizes troubleshooting and downtime, simplifies management, and enables IT to refocus resources on higher-value projects. IT organizations, systems integrators, and independent software vendors (ISVs) alike benefit from the stability, scalability, lower total cost of ownership (TCO), reduced risk, and professional support.

Similar to JBoss community projects, it's free and easy to gain access to complete Red Hat JBoss Middleware platforms under an unsupported development license at [jboss.org/products](http://jboss.org/products).

## SIDE-BY-SIDE COMPARISON OF ENTERPRISE PRODUCTS AND COMMUNITY PROJECTS: OVERVIEW

Now more than ever, it's critical for enterprises and software vendors to comply with government and industry regulations to minimize corporate risk. Deploying applications and services in production demands enterprise-class reliability and maintainability over the long-term.

	RED HAT JBOSS MIDDLEWARE	JBOSS COMMUNITY PROJECTS
Long-term stability	<ul style="list-style-type: none"> <li>• Long-term maintenance and support of code is provided, with backwards compatibility of fixes and security patches.</li> <li>• The Extended Life Cycle Support (ELS) program delivers up to three additional years of maintenance support.</li> </ul>	<ul style="list-style-type: none"> <li>• Innovative projects can have features that end up in dead branches, leaving the developer with code that is not carried forward by the community.</li> <li>• APIs may change between minor releases.</li> <li>• Backwards compatibility is not guaranteed.</li> <li>• Major or minor community versions may not make their way into a fully supported product release.</li> </ul>

	RED HAT JBOSS MIDDLEWARE	JBOSS COMMUNITY PROJECTS
Integration	<ul style="list-style-type: none"> <li>• Multiple community projects (application server, web frameworks, load balancing, restful services, native HTTP) are integrated into a single code distribution that is configured for enterprise use.</li> <li>• Experimental and unproven code are withheld.</li> <li>• Arbitrary third-party dependencies from all projects are replaced with their supported equivalents.</li> <li>• Some enterprise platforms also integrate projects from other communities, including the Apache Software Foundation.</li> <li>• Maintainability is improved.</li> <li>• Features include automated software updates, alerting, and management.</li> </ul>	<ul style="list-style-type: none"> <li>• Most times, the user needs to cobble together multiple projects into a “roll-your-own” platform.</li> <li>• Users must understand, check, and maintain dependencies on arbitrary third-party project binaries used by their selected projects and sub-projects, some of which may conflict.</li> <li>• As each individual project releases, maintenance falls on the user to make sure they all work together.</li> <li>• Compatibility is not guaranteed.</li> <li>• Releases often contain experimental and unproven code.</li> </ul>
Patches and updates	<ul style="list-style-type: none"> <li>• Subscriptions include a single patch and update stream for all components in the platform (even those from communities other than JBoss Developer).</li> <li>• Patches, security updates, and hot fixes are all certified.</li> </ul>	<ul style="list-style-type: none"> <li>• Community releases are replaced, not patched.</li> <li>• Subsequent patches and enhancements are co-mingled with new features in future community project releases. Some bug fixes may never be applied to community versions.</li> <li>• Re-creating patches requires users to attempt to replicate the build process from original source code.</li> </ul>

	RED HAT JBOSS MIDDLEWARE	JBOSS COMMUNITY PROJECTS
Enhancements	<ul style="list-style-type: none"> <li>• Release process is structured.</li> <li>• Subscription includes major and minor release notes and migration documentation.</li> <li>• Enhancements are released separately from patches.</li> </ul>	<ul style="list-style-type: none"> <li>• Code is released into the community for testing and feedback, but may require several releases to finalize. Changes from original can be significant.</li> <li>• Enhancements are intermingled with other community contributions.</li> </ul>
Security	<ul style="list-style-type: none"> <li>• Customers benefit from a formalized enterprise security resolution process.</li> <li>• Issues are tracked, identified, classified, and resolved by the Red Hat Security Response Team.</li> </ul>	<ul style="list-style-type: none"> <li>• There is no formal security response process.</li> <li>• Issues may not be addressed.</li> </ul>

*Table 1: Frequency and quality of releases vary between community and enterprise software versions.*

## INCREASE PRODUCTIVITY

Productivity, quality, and usability are critical success factors for enterprises and software vendors.

	RED HAT JBOSS MIDDLEWARE	JBOSS COMMUNITY PROJECTS
Access to source code	<ul style="list-style-type: none"> <li>• Red Hat JBoss Middleware is completely open source.</li> </ul>	<ul style="list-style-type: none"> <li>• JBoss community projects are completely open source.</li> </ul>
Support	<ul style="list-style-type: none"> <li>• Industry-leading support is included, with mission-critical SLAs, defect escalation processes, and end-of-life policy management.</li> <li>• Provides an enterprise customer support portal and product knowledge base.</li> <li>• Production support is provided.</li> <li>• Escalation support is delivered by the developers of the code.</li> </ul>	<ul style="list-style-type: none"> <li>• No support other than public forums.</li> <li>• Advice in forums may not come from Red Hat and is not guaranteed.</li> <li>• Patches are not available.</li> </ul>

	RED HAT JBOSS MIDDLEWARE	JBOSS COMMUNITY PROJECTS
Quality assurance	<ul style="list-style-type: none"> <li>• Rigorous quality assurance (QA), including performance and scalability testing, is completed for every release.</li> <li>• The software life cycle matches that of traditional enterprise software.</li> <li>• QA tests enhance community test suites by adding performance, scalability, availability, and reliability testing.</li> </ul>	<ul style="list-style-type: none"> <li>• No formal QA process exists.</li> <li>• Testing covers a minimal number of test configurations.</li> </ul>
Localization	<ul style="list-style-type: none"> <li>• Software is localized for major languages.</li> </ul>	<ul style="list-style-type: none"> <li>• No localization.</li> </ul>
Compatibility	<ul style="list-style-type: none"> <li>• Code is tested and certified on a variety of leading JVM/ operating system and architecture combinations and a range of industry-leading DBMS and ISV products.</li> </ul>	<ul style="list-style-type: none"> <li>• Projects lack compatibility certifications.</li> </ul>
Documentation	<ul style="list-style-type: none"> <li>• Subscription includes full, professional, localized software documentation.</li> </ul>	<ul style="list-style-type: none"> <li>• Documentation availability varies by project.</li> </ul>

*Table 2: More support built in means less time your developers spend fixing bugs, installing patches, and making the software work for your purposes.*

## CRITICAL BUSINESS FACTORS

Mission-critical applications require infrastructure that can offer a breadth of related services to maximize your competitive advantage.

	RED HAT JBOSS MIDDLEWARE	JBOSS COMMUNITY PROJECTS
Consulting services	<ul style="list-style-type: none"> <li>• Expert consulting from Red Hat and an advanced worldwide network of certified partners are available.</li> </ul>	<ul style="list-style-type: none"> <li>• Red Hat does not provide, nor certify partners to provide, consulting services on community projects.</li> </ul>

TECHNOLOGY DETAIL Community or Enterprise?



### 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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	RED HAT JBOSS MIDDLEWARE	JBOSS DEVELOPER PROJECTS
Training and certification	<ul style="list-style-type: none"> <li>• Training comes directly from the source, with curricula influenced by those who wrote the code.</li> <li>• Our certification program is industry-recognized and performance-based.</li> </ul>	<ul style="list-style-type: none"> <li>• Red Hat does not provide, nor certify partners to provide, training on community projects.</li> <li>• No training certifications are provided.</li> </ul>
ISV partnerships	<ul style="list-style-type: none"> <li>• There are over 500 certified ISV applications.</li> <li>• ISVs are listed in the Red Hat partner catalog.</li> </ul>	<ul style="list-style-type: none"> <li>• No partnerships exist.</li> <li>• No application certifications are provided.</li> </ul>
Trademarks (embedded ISV specific)	<ul style="list-style-type: none"> <li>• Red Hat and JBoss trademark usage is allowed by agreement.</li> </ul>	<ul style="list-style-type: none"> <li>• ISVs are not permitted to use Red Hat or JBoss trademarks.</li> <li>• Modifications require manual removal of all trademarks in source code, documentation, and collateral.</li> </ul>
Legal assurance	<ul style="list-style-type: none"> <li>• The Red Hat Software Assurance offers indemnification and safeguards from certain legal risks.</li> </ul>	<ul style="list-style-type: none"> <li>• No legal assurance is offered.</li> </ul>

Table 3: Red Hat supports more than just our software, with training and consulting services and legal assurances.

### SUMMARY

Red Hat JBoss Middleware delivers the best of both worlds: software developed by a vibrant open source community, with the testing, certification, documentation, training, and support that is expected from mature enterprise software products. IT organizations and independent software vendors alike can benefit greatly from realizing Red Hat JBoss Middleware as the ideal choice for the development and deployment of mission-critical applications and services.

For more information, visit [redhat.com/jboss](http://redhat.com/jboss) or contact your local Red Hat sales representative.