



Red Hat JBoss Web Server 6.0

Red Hat JBoss Web Server 6.0 Release Notes

For Use with the Red Hat JBoss Web Server 6.0

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Abstract

These release notes contain important information related to the Red Hat JBoss Web Server 6.0.

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PROVIDING FEEDBACK ON RED HAT JBOSS WEB SERVER DOCUMENTATION

To report an error or to improve our documentation, log in to your Red Hat Jira account and submit an issue. If you do not have a Red Hat Jira account, then you will be prompted to create an account.

Procedure

1. Click the following link to [create a ticket](#).
2. Enter a brief description of the issue in the **Summary**.
3. Provide a detailed description of the issue or enhancement in the **Description**. Include a URL to where the issue occurs in the documentation.
4. Clicking **Submit** creates and routes the issue to the appropriate documentation team.

MAKING OPEN SOURCE MORE INCLUSIVE

Red Hat is committed to replacing problematic language in our code, documentation, and web properties. We are beginning with these four terms: master, slave, blacklist, and whitelist. Because of the enormity of this endeavor, these changes will be implemented gradually over several upcoming releases. For more details, see [our CTO Chris Wright's message](#).

CHAPTER 1. RED HAT JBOSS WEB SERVER 6.0

Welcome to the Red Hat JBoss Web Server version 6.0 release.

Red Hat JBoss Web Server is a fully integrated and certified set of components for hosting Java web applications. It consists of an application server (Apache Tomcat servlet container) and the Apache Tomcat Native Library.

JBoss Web Server includes the following key components:

- **Apache Tomcat** is a servlet container in accordance with the Java Servlet Specification. JBoss Web Server contains Apache Tomcat 10.1.
- The **Apache Tomcat Native Library** improves Tomcat scalability, performance, and integration with native server technologies.
- **Tomcat-vault** is an extension for the JBoss Web Server that is used for securely storing passwords and other sensitive information used by a JBoss Web Server.
- The **mod_cluster** library enables communication between JBoss Web Server and the Apache HTTP Server **mod_proxy_cluster** module. The **mod_cluster** library enables you to use the Apache HTTP Server as a load balancer for JBoss Web Server. For more information about configuring **mod_cluster**, or for information about installing and configuring alternative load balancers such as **mod_jk** and **mod_proxy**, see the [Apache HTTP Server Connectors and Load Balancing Guide](#).
- **Apache portable runtime (APR)** is a runtime that provides an OpenSSL-based TLS implementation for the HTTP connectors. JBoss Web Server provides a distribution of APR for supported Windows platforms only. For Red Hat Enterprise Linux, you can use the APR package that the operating system provides.
- **OpenSSL** is a software library that implements the Secure Sockets Layer (SSL) and Transport Layer Security (TLS) protocols and includes a basic cryptographic library. JBoss Web Server provides a distribution of OpenSSL for supported Windows platforms only. For Red Hat Enterprise Linux, you can use the OpenSSL package that the operating system provides.

This release introduces support for Apache Tomcat 10.1 and fixes some security issues.

This release of JBoss Web Server provides OpenShift images based on Red Hat Enterprise Linux 8.

CHAPTER 2. NEW FEATURES AND ENHANCEMENTS

Red Hat JBoss Web Server 6.0 includes the following new features and enhancements.

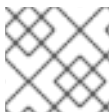
2.1. APACHE TOMCAT 10.1 SUPPORT

The JBoss Web Server 6.0 release is based on Apache Tomcat 10.1.8. This version of Apache Tomcat implements the following specifications that the Jakarta Enterprise Edition (EE) 10 platform requires:

- [Jakarta Servlet 6.0](#)
- [Jakarta Server Pages 3.1](#)
- [Jakarta Expression Language 5.0](#)
- [Jakarta WebSocket 2.1](#)
- [Jakarta Authentication 3.0](#)

2.2. JAVA PACKAGE NAMESPACE CHANGES FROM JAVAX TO JAKARTA

With the introduction of Apache Tomcat 10.1 support, which implements Jakarta EE 10, a major difference between JBoss Web Server 6.0 and previous product versions is the renaming of the Jakarta EE API Java packages from **javax.** to **jakarta.**



NOTE

This change does not affect **javax** packages that are part of Java Standard Edition (SE).

Adapting to this namespace change is the biggest change involved in migrating applications to JBoss Web Server 6.0. For more information, see [Migrating applications from Red Hat JBoss Web Server 5.x to Red Hat JBoss Web Server 6.](#)

2.3. NAMING ENHANCEMENTS FOR JBOSS WEB SERVER NATIVE ARCHIVE FILES

From JBoss Web Server 6.0 onward, the native archive files that you can download from the Red Hat Customer Portal use the following naming format:

jws-6.X.x-optional-native-components-*<platform>*-*<architecture>*.zip

This supersedes the behavior in previous releases where the native archive files used the following naming format:

jws-5.X.x-application-server-*<platform>*-*<architecture>*.zip

2.4. ARM64 ARCHITECTURE SUPPORT

JBoss Web Server 6.0 introduces support for using JBoss Web Server with the ARM64 (aarch64) architecture in the OpenShift environment.

2.5. JWS FOR OPENSIFT IMAGE FOR OPENJDK 17

JBoss Web Server 6.0 introduces support for importing JWS for OpenShift images that are compatible with OpenJDK 17. In this release, you can import a **jboss-webserver60-openjdk17-tomcat10-openshift-ubi8** image.

2.6. JWS FOR OPENSIFT ENVIRONMENT VARIABLE ENHANCEMENTS

Because of modifications in Apache Tomcat connector settings, the JWS for OpenShift environment variables include the following enhancements for secure HTTPS connections:

- **JWS_HTTPS_CERTIFICATE_CHAIN** is a new variable that specifies the name of the certificate chain file (for example, **ca-chain.cert.pem**).
- **JWS_HTTPS_CERTIFICATE_DIR** is a new variable that specifies the name of the directory where the certificate is stored (for example, **cert**).
- **JWS_HTTPS_CERTIFICATE** now specifies the name of the certificate file (for example, **rsa-cert.pem**). This supersedes the behavior in previous releases where the **JWS_HTTPS_CERTIFICATE** variable specified the name of the certificate file within a secret (for example, **server.crt**).
- **JWS_HTTPS_CERTIFICATE_KEY** now specifies the name of the certificate key file (for example, **rsa-key.pem**). This supersedes the behavior in previous releases where the **JWS_HTTPS_CERTIFICATE_KEY** variable specified the name of the certificate key file within a secret (for example, **server.key**).

2.7. ENHANCED DEFAULT ACCESSLOGVALVE PATTERN

From JBoss Web Server 6.0 onward, the default **AccessLogValve** pattern in the **JWS_HOME/tomcat/conf/server.xml** file also contains **%S**, **%I**, and **%T** replacement strings. These replacement strings enable JBoss Web Server to include the following information in access logs to help diagnose session or performance issues:

- User session ID
- Current Request thread name
- Length of time (in seconds) to process the request

Similar to previous releases, the default **AccessLogValve** pattern in JBoss Web Server 6.0 still contains **%h**, **%l**, **%u**, **%t**, **%"r"**, **%s**, and **%b** replacement strings for logging other diagnostic information.

For more information about the Access Log Valve, see the [Apache Tomcat documentation](#).

2.8. STUCKTHREADEDTECTIONVALVE ENABLED BY DEFAULT

From JBoss Web Server 6.0 onward, the **StuckThreadDetectionValve** setting is enabled by default in the **JWS_HOME/tomcat/conf/server.xml** file. This feature is useful for detecting requests that take an excessively long time to process, which might indicate that a processing thread is stuck. By default, if the **StuckThreadDetectionValve** setting is enabled and a request takes more than 600 seconds (10 minutes) to process, JBoss Web Server considers that a thread is stuck.

For more information about the Stuck Thread Detection Valve, see the [Apache Tomcat documentation](#).

CHAPTER 3. DEPRECATED FEATURES

The following features are being deprecated in this release.

3.1. RED HAT ENTERPRISE LINUX 7 SUPPORT

This release removes support for the Red Hat Enterprise Linux 7 operating system. From JBoss Web Server 6.0 onward, Red Hat does not support the installation of JBoss Web Server from an archive file or RPM packages on Red Hat Enterprise Linux 7 hosts.

For more information about supported operating system versions, see [OS/JVM certifications](#).

3.2. WINDOW 2016 SERVER SUPPORT

This release removes support for the Windows 2016 Server operating system. From JBoss Web Server 6.0 onward, Red Hat does not support the installation of JBoss Web Server from an archive file on Windows 2016 Server hosts.

For more information about supported operating system versions, see [OS/JVM certifications](#).

3.3. JDK 8 SUPPORT

This release removes support for using JBoss Web Server with any of the following JDK versions:

- OpenJDK 1.8.x
- Oracle JDK 1.8.x
- IBM JDK 1.8.x

For more information about supported JDK versions, see [OS/JVM certifications](#).

3.4. APR CONNECTOR SUPPORT

With the introduction of Apache Tomcat 10.1 support, JBoss Web Server no longer supports use of the Apache Portable Portable (APR) native connector. From JBoss Web Server 6.0 onward, JBoss Web Server only supports use of the NIO connector or the NIO2 connector.

3.5. JWS_HTTPS_SECRET ENVIRONMENT VARIABLE

From JBoss Web Server 6.0 onward, JWS for OpenShift no longer supports the **JWS_HTTPS_SECRET** environment variable. In previous releases, this environment variable specified the name of the secret that contained the certificate files for secure HTTPS connections (for example, **jws-app-secret**).

For more information, see [JWS for OpenShift environment variable enhancements](#).

3.6. APACHE CXF AND HIBERNATE ORM ARTIFACTS REMOVED FROM THE JBOSS WEB SERVER MAVEN REPOSITORY

From JBoss Web Server 6.0 onward, Red Hat no longer provides Apache CXF and Hibernate JAR files in the **jboss-web-server-6.0.x-maven-repository.zip** file that you can download from the Red Hat Customer Portal.

CHAPTER 4. INSTALLING THE RED HAT JBOSS WEB SERVER 6.0

You can install the JBoss Web Server 6.0 on Red Hat Enterprise Linux or Microsoft Windows. For more information see the following sections of the installation guide:

- [Installing JBoss Web Server on Red Hat Enterprise Linux from archive files](#)
- [Installing JBoss Web Server on Red Hat Enterprise Linux from RPM packages](#)
- [Installing JBoss Web Server on Microsoft Windows](#)

CHAPTER 5. OS/JVM CERTIFICATIONS

This release is supported for use with the following operating system and Java Development Kit (JDK) versions:

Operating System	Chipset Architecture	Java Virtual Machine
Red Hat Enterprise Linux 9	x86_64	Red Hat OpenJDK 11, Red Hat OpenJDK 17, Oracle JDK 11, Oracle JDK 17
Red Hat Enterprise Linux 8	x86_64	Red Hat OpenJDK 11, Red Hat OpenJDK 17, Oracle JDK 11, Oracle JDK 17
Microsoft Windows 2019 Server	x86_64	Red Hat OpenJDK 11, Red Hat OpenJDK 17, Oracle JDK 11, Oracle JDK 17



NOTE

Red Hat Enterprise Linux 7 and Microsoft Windows 2016 Server are not supported.

CHAPTER 6. RESOLVED ISSUES

The following issues are resolved for this release:

Issue	Description
JWS-2579	Naming convention issue in JBoss Web Server download page in customer portal
JWS-2245	Remove CXF and Hibernate from JWS maven-repo zip

CHAPTER 7. KNOWN ISSUES

This release includes the following known issue:

Issue	Description
JWS-3092	Race condition in stop under stress: Context checks block Container stop

CHAPTER 8. SUPPORTED COMPONENTS

For a list of component versions that are supported in this release of Red Hat JBoss Web Server, see the [JBoss Web Server Component Details](#) page.

CHAPTER 9. ADVISORIES RELATED TO THIS RELEASE

The following advisories have been issued to document enhancements, bugfixes, and CVE fixes included in this release:

- [RHBA-2023:6210](#)
- [RHBA-2023:6211](#)
- [RHEA-2023:6212](#)