Red Hat JBoss Web Server 5.3

Red Hat JBoss Web Server 5.3 Release Notes

For Use with the Red Hat JBoss Web Server 5.3

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Legal Notice

Abstract

These release notes contain important information related to the Red Hat JBoss Web Server 5.3.

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CHAPTER 1. REDHAT JBOSS WEB SERVER 5.3

Welcome to the Red Hat JBoss Web Server version 5.3 release.

> **WARNING**
>
> As a result of a security vulnerability (CVE-2020-1938), changes were made to the AJP Connector. By default the AJP connector will not be enabled. If it is required that you use the AJP connector with your build, ensure that you set the **secret** attribute as well as set your the bind address for your server.

Red Hat JBoss Web Server is a fully integrated and certified set of components for hosting Java web applications. It consists of a web server (Apache HTTP Server), an application server (Apache Tomcat Servlet container), load balancers (mod_jk and mod_cluster), and the Tomcat Native Library. A short description of key components is given below:

- **Apache tomcat**: a servlet container in accordance with the Java Servlet Specification. JBoss Web Server contains Apache Tomcat 9.

- **Apache tomcat native library**: a Tomcat library, which improves Tomcat scalability, performance, and integration with native server technologies.

- **tomcat-vault**: an extension for the JBoss Web Server used for securely storing passwords and other sensitive information used by a JBoss Web Server.

- **mod_cluster** library: a library that allows communication between Apache Tomcat and the Apache HTTP Server's mod_proxy_cluster module. This allows the Apache HTTP Server to be used as a load balancer for JBoss Web Server. For information on the configuration of mod_cluster, or for information on the installation and configuration of the alternative load balancers mod_jk and mod_proxy, see the HTTP Connectors and Load Balancing Guide .

- **Apache portable runtime(APR)**: A runtime which provides superior scalability, performance, and improved integration with native server technologies. APR is a highly portable library that is at the heart of Apache HTTP Server 2.x. It enables access to advanced IO functionality (for example: sendfile, epoll and OpenSSL), Operating System level functionality (for example: random number generation and system status), and native process handling (shared memory, NT pipes and Unix sockets).

- **OpenSSL**: A software library which implements the Secure Sockets Layer (SSL) and Transport Layer Security (TLS) protocols and includes a basic cryptographic library.

This release of JBoss Web Server covers several quality of life updates, some key component rebased to newer versions and a few major security updates. Tomcat, tomcat-native, and Apache CXF were all rebased to newer versions.

One major change directly of note was the addition of the **catalina-ssi.jar** file. Previously, these classes were included as part of **catalina.jar** and **tomcat-embed-core.jar**. These changes do no impact unaltered Red Hat JBoss Web Server configurations. However, it is recommended that you check any dependencies your system has on these files after updating to JBoss Web Server 5.3. The **catalina-ssi.jar** file contains code used by the SsiInvoker and effects the following ssi commands:

- SsiConfig

- SsiEcho

- SsiExec

- SsiFlastMod

- SsiFsize

- SsiInclude

CHAPTER 2. INSTALLING THE RED HAT JBOSS WEB SERVER 5.3

The JBoss Web Server 5.3 can be installed using one of the following sections of the installation guide:

- Installing JBoss Web Server on Red Hat Enterprise Linux .

- Installing JBoss Web Server on Microsoft Windows.

CHAPTER 3. OS/JVM CERTIFICATIONS

Operating System	Chipset Architecture	Java Virtual Machine
Red Hat Enterprise Linux 8	x86_64	Red Hat OpenJDK 1.8.x, Red Hat OpenJDK 11, OracleJDK 11
Red Hat Enterprise Linux 7	x86_64	Red Hat OpenJDK 1.8.x, Red Hat OpenJDK 11, Oracle JDK 1.8.x, Oracle JDK 11, IBM JDK 1.8.x
Red Hat Enterpries Linux 6	x86_64, x86	Red Hat OpenJDK 1.8.x, Oracle JDK 1.8.x, Oracle JDK 11(**x86_64 Only**), IBM JDK 1.8.x
Microsoft Windows 2016 Server	x86_64	Red Hat OpenJDK 1.8.x, Red Hat OpenJDK 11, Oracle JDK 1.8.x, Oracle JDK 11
Microsoft Windows 2012 Server R2	x86_64	Red Hat OpenJDK 1.8.x, Red Hat OpenJDK 11, Oracle JDK 1.8.x, Oracle JDK 11

CHAPTER 4. SECURITY FIXES

This update includes fixes for the following security related issues:

ID	Impact	Summary
CVE-2019-12418	Moderate	tomcat: local privilege escalation
CVE-2019-17563	Low	tomcat: session fixation when using FORM authentication
CVE-2019-17569	Low	tomcat: Regression in handling of Transfer-Encoding header allows for HTTP request smuggling
CVE-2020-1935	Low	tomcat: Mishandling of Transfer-Encoding header allows for HTTP request smuggling
CVE-2020-1938	Moderate	openssl: Side-channel vulnerability on SMT/Hyper-Threading architectures (PortSmash)

CHAPTER 5. RESOLVED ISSUES

Issue	Description
JWS-1055	Improve description of Tomcat Natives in the install guide
JWS-1056	[Docs] add that JWS_HOME is /opt/rh/jws5/root/usr/share for RPM distribution
JWS-1113	Provide brief overview of the difference between Apache Tomcat on RHEL and JWS
JWS-1306	Windows and Linux: Intermittent SIGSEGV in Java_org_apache_tomcat_jni_SSLSocket_handshake with HTTP/2
JWS-1311	Websocket: autobahn test suite reports issues with echoBasicEndpoint
JWS-1419	java-headless requirement forces OpenJDK install
JWS-1438	Document additional set to configure the SSI filter
JWS-1450	Review tomcat-librarypath.patch logic
JWS-1459	Tomcat Embedded with Apache CXF is not Java 11 ready
JWS-1463	[ASF BZ 63356] OCSP_parse_url error while parsing Authority Information Access extension
JWS-1465	Rebase tomcat-native to 1.2.23
JWS-1468	Rebase tomcat to version 9.0.30
JWS-1470	Rebase Apache CXF to version 3.3.2.redhat
JWS-1478	rpm install/update overwrites context.xml for host-manager and manager applications
JWS-1499	Update to the latest released JBCS version
JWS-1579	Add missing rpm changelog entries for CVEs
JWS-1592	Missing jar file in maven repository
JWS-1593	Tomcat throws exception when starting

Issue	Description
JWS-1594	Tomcat is undiscoverable to my proxy after updating
JWS-1598	Storing configuration fails with java.lang.NoSuchMethodException

CHAPTER 6. KNOWN ISSUES

There are no known issues this release.

CHAPTER 7. COMPONENTS INCLUDED IN RED HAT JBOSS WEB SERVER 5.3

Component	Version
Apache CXF	3.3.2
Apache Tomcat 9	9.0.30
ECJ	4.12.0
Hibernate	5.3.10
JBoss logging	3.3.2
libapr	1.6.3
mod_cluster	1.4.1.Final
OpenSSL	1.1.1c
Tomcat-Native	1.2.23
Tomcat-Vault	1.1.8.Final