



Red Hat JBoss Web Server 3

3.0 Release Notes

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Abstract

These release notes contain important information related to Red Hat JBoss Web Server 3.0. Read these Release Notes in their entirety before installing JBoss Web Server 3.0.

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1. INTRODUCTION TO RED HAT JBOSS WEB SERVER 3.0

Welcome to Red Hat JBoss Web Server, formerly known as JBoss Enterprise Web Server. These Release Notes detail information about new features, as well as known and resolved issues. Use this document in conjunction with the entire JBoss Web Server 3 documentation suite, available on the Red Hat Customer Portal: <https://access.redhat.com/documentation/>.

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1.1. About Red Hat JBoss Web Server

Red Hat JBoss Web Server is a fully integrated and certified set of components for hosting Java web applications. It is comprised of a web server (Apache HTTP Server), application server (Apache Tomcat Servlet container), load balancers (mod_jk and mod_cluster), and the Tomcat Native Library.

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2. NEW FEATURES

The following is a list of new and updated features available in Red Hat JBoss Web Server 3:

- Inclusion of Tomcat 8.
- Apache HTTP Server has been updated to version 2.4.
- Updated version of Tomcat 7.
- Updated version of Hibernate.
- Updated version of mod_cluster.
- Support for Java 8.
- The addition of mod_security for Apache HTTP Server.

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3. SUPPORTED OPERATING SYSTEMS AND CONFIGURATIONS

For information on supported operating systems and configurations for Red Hat JBoss Web Server, see <https://access.redhat.com/articles/1377603>.



NOTE

A certified Solaris build has not been included in the GA release of JBoss Web Server 3.0, but will be released in a post-GA update.

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4. CHANGES AND RESOLVED ISSUES

Updated Components from JBoss Enterprise Web Server 2.1

- Apache HTTP Server in JBoss Web Server 3.0 is updated from 2.2.26 to 2.4.6.
- `mod_cluster` in JBoss Web Server 3.0 is updated from 1.2.9 to 1.3.1.
- `tomcat-native` in JBoss Web Server 3.0 is updated from 1.1.30 to 1.1.32.
- Tomcat 7 in JBoss Web Server 3.0 is updated from 7.0.54 to 7.0.59.
- Hibernate in JBoss Web Server 3.0 is updated from 4.2.14.SP to 4.2.18.Final.

Replacement of `mod_snmp` with `mod_bmx`

In this release of JBoss Web Server, the Apache HTTP Server `mod_snmp` module has been replaced with `mod_bmx`. `mod_bmx` retrieves the same information about Apache HTTP server for external monitoring, and uses a HTTP/1.1 REST-like interface instead the SNMP protocol.

BZ#1104217 - JDK8 JasperException: Unable to compile class for JSP. type `java.util.Map$Entry` cannot be resolved

The following exception was displayed when JSP page was accessed with `java.util.HashMap` reference:

```
JDK8 JasperException: Unable to compile class for JSP. type
java.util.Map$Entry
```

This issue was related to JDK 8. The `HashMap` implementation had changed and jasper works with `HashMap$Entry` subclass which is not present in the JDK 8 `HashMap`.

This issue is resolved in this release of JBoss Web Server 3, JSP pages with `java.util.HashMap` references should compile successfully.

BZ#1038651 - There are no "TLSv1.1" and "TLSv1.2" options for Apache's `SSLProtocol` directive

An incompatibility problem existed with Apache HTTP Server and OpenSSL on Red Hat Enterprise Linux 6.5.

This resulted in no `TLSv1.1` or `TLSv1.2` options being available for Apache HTTP Server's `SSLProtocol` directive.

This issue has been fixed with the update of OpenSSL to version 1.0.1e in this release of JBoss Web Server, and `TLSv1.1` and `TLSv1.2` options should be available as expected on all supported platforms.

BZ#1131387 - `mod_substitute` is missing on Windows

The Apache HTTP Server `mod_substitute` module was missing in the Microsoft Windows build of JBoss Web Server.

This has been fixed in this release, and `mod_substitute` is now included in the Microsoft Windows build of JBoss Web Server 3.

JWS-22 - Upgrade to hibernate 4.2.18.Final-redhat-1

Previously Hibernate had an issue in which `EntityManager.flush()` did not behave properly with a transient one-to-one association and no cascade. In this situation it is expected that an `IllegalStateException` will be thrown by the flush operation and the transaction marked for rollback, or the transaction commit will fail.

This issue has been fixed in this release of JBoss Web Server by upgrading Hibernate to 4.2.18.Final-redhat-1, and `EntityManager.flush()` operations will now behave as expected in situations of a transient one-to-one association and no cascade.

JWS-18 - Include ECJ4.4 in both Tomcats 7 and 8 for JDK8 issue fixes

When using Java 8 features in JSP pages with Tomcat, JSP compiler exceptions similar to the following were thrown: `Unable to compile class for JSP`.

This issue occurred because the ECJ included with Tomcat 7 and 8 did not properly compile Java 8 classes.

This issue is fixed with the upgrade of ECJ to version 4.4 for both Tomcat 7 and 8, and Java 8 features in JSP pages should now compile successfully.

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5. KNOWN ISSUES

BZ#1025057 - SSLProxyMachineCertificateFile doesn't support PKCS#8 key format

In JBoss Web Server, when a PKCS#8 key generated by OpenSSL is used, JBoss Web Server displays the following error and then terminates:

```
incomplete client cert configured for SSL proxy (missing or encrypted private key?)
```

The PKCS#8 format is not supported by `mod_ssl`, as `mod_ssl` uses different functions when loading the proxy key pair.

This is a known issue in JBoss Web Server 3.0. As a workaround, convert from PKCS#8 to the raw PEM encoding of the RSA key and use `"openssl pkcs8"`.

BZ#1157769 - JWS: VirtualHosts share pointer to mod_proxy configuration, results in: CreateBalancers behave the same with option 0 or 2

The directive `CreateBalancers` with the option `0` or `2` creates the balancers on all Apache HTTP Server virtual hosts.

When using option `2`, it is expected that the balancers should be created on the main server only, and not on the virtual hosts.

The cause of this issue is under investigation, and is expected to be resolved in a future release.

BZ#1155686 - Tomcat7 sessionsList.jsp does not work

This release of JBoss Web Server contains an issue with `sessionsList.jsp` in Tomcat 7 and 8. An error similar to the following is thrown during compile:


```
An error occurred at line: [18] in the generated java file:
[/usr/share/tomcat7/work/Catalina/localhost/manager/org/apache/jsp/WEB_0
02dINF/jsp/sessionsList_jsp.java]
Only a type can be imported. org.apache.catalina.ha.session.DeltaSession
resolves to a package
```

```
An error occurred at line: 109 in the jsp file: /WEB-
INF/jsp/sessionsList.jsp
DeltaSession cannot be resolved to a type
```

This error occurs because `sessionsList.jsp` has a dependency on the `DeltaSession` HA class.

This issue is expected to be resolved in a future release of JBoss Web Server.

BZ#1100599 - Tomcat7 - catalina.out contains warning and errors (after shutdown)

When using JBoss Web Server 3 on Microsoft Windows, starting and then stopping Tomcat7 results in warnings and errors being unexpectedly displayed after Tomcat7 has shut down.

The web application `[/docs]` initiates a thread named `[SeedGenerator Thread]` but does not stop the thread when it shuts down. As a result, the errors and warnings continue to appear after Tomcat7 shuts down.

This is a known issue in JBoss Web Server 3 and there is currently no workaround for this problem.

BZ#822250 - Tomcat6 mod_cluster config file (JON)

In JBoss Web Server, a `mod_cluster` config file error is displayed on the **Inventory Connections** screen even after configuring the file.

This is a known issue in JBoss Web Server 3 and there is currently no workaround for this problem.

BZ#1201269 - Tomcat 7 datasources are not discovered if defined in server.xml file

This release of JBoss Web Server carries a bug that prevents Tomcat 7 datasources from being discovered if they are defined in the `server.xml` file.

A workaround to this issue is to define the datasources in the `context.xml` file.

BZ#1086412 - SSLFIPS option does not operate the same as RHEL httpd

In JBoss Web Server, the `SSLFIPS` option does not operate as expected.

This is a known issue in JBoss Web Server 3 and there is currently no workaround for this problem.

BZ#1116863 - [rpm] hibernate extra source jars

In JBoss Web Server 3.0, some source files are included in the Hibernate RPM distribution that are not present in the Hibernate ZIP distribution.

This is a known issue and there is currently no workaround for this problem.

JWS-106 - Tomcat7: Unable to compile selinux policies

Errors similar to the following are thrown when attempting to compile the SELinux policies for Tomcat 7 on Red Hat Enterprise Linux 7.

```
Compiling targeted tomcat7 module
/usr/bin/checkmodule: loading policy configuration from tmp/tomcat7.tmp
tomcat7.te":78:ERROR 'unknown type tomcat7_domain' at token ';' on line
6151:
#line 78
        typeattribute tomcat7_domain kernel_system_state_reader;
/usr/bin/checkmodule: error(s) encountered while parsing configuration
make: *** [tmp/tomcat7.mod] Error 1
```

The cause of this issue is currently under investigation.

JWS-105 - Tomcat8: Unable to compile selinux policies

Errors similar to the following are thrown when attempting to compile the SELinux policies for Tomcat 8 on Red Hat Enterprise Linux 7.

```
Compiling targeted tomcat8 module
/usr/bin/checkmodule: loading policy configuration from tmp/tomcat8.tmp
tomcat8.te":78:ERROR 'unknown type tomcat7_domain' at token ';' on line
6151:
#line 78
        typeattribute tomcat7_domain kernel_system_state_reader;
/usr/bin/checkmodule: error(s) encountered while parsing configuration
make: *** [tmp/tomcat8.mod] Error 1
```

The cause of this issue is currently under investigation.

JWS-99 - httpd apxs utility needs EWS_HOME var. set

To be able to properly run the Apache Extension Tool (apxs) with Apache HTTP Server in JBoss Web Server 3, the `EWS_HOME` environment variable needs to be set to the JBoss Web Server installation directory.

JWS-93 - Windows: set DefaultRuntimeDir

In this release of JBoss Web Server on Microsoft Windows, the Apache HTTP Server directive `DefaultRuntimeDir` does not point to the installation directory.

As a result, the `mod_auth_digest` shm files are created in logs directory.

This issue is expected to be fixed in a future update.

JWS-86 - Upgrading Tomcat plugin, metric names not updated

When upgrading a RHQ 4.5 installation to 4.6, the Tomcat plugin may not be properly updated.

In this situation the following exception is thrown:

```
java.lang.IllegalArgumentException: The property [name] marked as
required in the configuration definition of [Tomcat Connector] has no
attribute 'default'
```

The cause of this issue is currently under investigation.

JWS-85 - Problem to start tomcat with a user whose group has a name different to the user

The Tomcat init scripts are not designed to be run by a user with a name that does not correspond to an existing group.

In this situation, the Tomcat processes are not able to be stopped with the provided scripts, as well as other operational issues regarding the `CATALINA_PID` file.

To workaroud this issue, please follow the configuration instructions in the *JBoss Web Server 3 Installation Guide*, and create a `tomcat` user that belongs to a `tomcat` group.

JWS-84 - Tomcat8: Backport Add option to disable log rotation in FileHandler.

Tomcat 8 in JBoss Web Server 3 does not currently have the ability to disable log rotation in 'FileHandler`.

This issue will be fixed in a future update.

JWS-79 - mod_cluster-container-jbossweb.jar in RPM installation

`mod_cluster-container-jbossweb.jar` and `mod_cluster-container-jbossweb-sources.jar` shipped in `mod_cluster` are not supported by JBoss Web Server 3.

If you include `/usr/share/java` in your `CLASSPATH`, these jars may prevent `mod_cluster` from registering to the load balancer.

Please remove these two jars if you want to include `/usr/share/java` in your `CLASSPATH`.

JWS-67 - Windows: Tomcat8 WebDAV move operation fails

Attempting to execute a `MOVE` operation in Tomcat 8 on Microsoft Windows returns a HTTP 500 error. An error similar to the following is added to the `access_log`:

```
127.0.0.1 - tomcat [16/Apr/2015:02:58:43 -0700] "MOVE
/webdavapp/webdav/hello.txt HTTP/1.1" 500 1040
```

This issue is currently under investigation.

JWS-61 - Tomcat7/8 breaks session stickyness with ;jsessionid= followed by /

If a `/` is included after a `jsessionid` in a URL, this may result in Tomcat 7 and Tomcat 8 failing to maintain the client session. In this situation, Tomcat fails to understand the `jsessionid` string and creates a new `jsessionid`.

This issue is currently under investigation.

JWS-54 - JON Tomcat8: Not discovered default web app config values

It has been reported that when deploying some applications through the JON interface to Tomcat 8, the following error is encountered:

```
The following configuration properties have invalid values: [Allow Linking, Anti Jar Locking, Caching Allowed, Cache TTL, Cache Max Size, Save Config]. The values must be corrected before the configuration can be saved.
```

This error presents because the default values of the listed properties are not discovered in Tomcat 8. This issue prevents the configuration from being saved until valid settings are entered for each property.

This issue is under investigation.

JWS-48 - JON httpd plugin for mod_bmx not provided yet

A Red Hat JBoss Operations Network plugin for Apache HTTP Server in JBoss Web Server 3 is not included in the general availability (GA) release. A new plugin that uses mod_bmx will be published after the release of JBoss Web Server 3.

JWS-27 - Windows: private key before PEM certificate causes Segfault

On Microsoft Windows, sending a request via a mod_proxy reverse proxy to a https backend results in a segfault. Using `gdb` shows that having the private key before the certificate in `SSLProxyMachineCertificateFile` triggers the segfault.

This is a known issue in JBoss Web Server 3 and is currently under investigation.

JWS-24 - Windows: mod_jk does not work with ipv6

In this release of JBoss Web Server, mod_jk does not work with IPv6 addresses, and may create logs in `mod_jk.log` similar to the following:

```
[error] ajp_validate::jk_ajp_common.c (2748): worker worker1 can't resolve tomcat address ::1
[error] ajp_validate::jk_ajp_common.c (2748): worker worker2 can't resolve tomcat address ::1
```

The cause of this issue is under investigation.

JWS-6 - hibernate c3p0 mchange-commons-java raises error on IBMJDK

If using `mchange-commons-java` in Hibernate c3p0 on an IBM JDK, a `java.lang.ClassNotFoundException: org.slf4j.LoggerFactory` error may be thrown.

You can work around this issue by setting the following property in your application:

```
System.setProperty("com.mchange.v2.log.MLog",
"com.mchange.v2.log.jdk14logging.Jdk14MLog");
```

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A. REVISION HISTORY

Revision 3.0.0-12

Tue 5 May 2015

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Red Hat JBoss Web Server 3.0 GA.