



Red Hat JBoss Web Server 2.1

2.1.1 Release Notes

Release Notes for Red Hat JBoss Web Server 2.1.1

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Abstract

These release notes contain important information related to Red Hat JBoss Web Server 2.1.1. Read these Release Notes in their entirety before installing Red Hat JBoss Web Server 2.1.1.

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1. INTRODUCTION TO RED HAT JBOSS ENTERPRISE WEB SERVER

2.1

Welcome to the Red Hat JBoss Enterprise Web Server 2.1. As you become familiar with the newest version of JBoss Enterprise Web Server, these Release Notes provide you with information about new features, as well as known and resolved issues. Use this document in conjunction with the entire JBoss Enterprise Web Server 2.1 documentation suite, available at the Red Hat Customer Service Portal's [JBoss Enterprise Web Server documentation page](#).

1.1. About Red Hat JBoss Enterprise Web Server

JBoss Enterprise Web Server is a fully-integrated and certified set of components for hosting Java web applications. It is comprised of the industry's leading web server (Apache HTTP Server), the popular Apache Tomcat Servlet container as well as load balancers (mod_jk and mod_cluster), Hibernate, the Tomcat Native library and others.

1.2. Overview

This document contains information about the new features, known and resolved issues of Red Hat JBoss Enterprise Web Server version 2.1. Customers are requested to read this document prior to installing this version.

1.3. Upgraded to openssl-1.0.2h

JBoss Web Server 2.1.1 has been upgraded to openssl-1.0.2h. This is because OpenSSL 0.9.8 is end of life and no longer supported. There is added support of TLSv1.2 and new ciphers only for Apache HTTP Server and JBoss EAP 6.4.10 Natives. By default, SSv3 is disabled. SSLv2 and some unsafe ciphers have been removed.



NOTE

JBoss Web Server 2.1.1 does not support TLSv1.2 for APR connectors on Tomcat. TLSv1.2 works with Java connectors on JDK 1.7 or later.

JBoss OpenSSL 1.0.2h does not claim FIPS certification. Hence, we do not support and test FIPS with JBoss Web Server 2.1.1 on any of our platforms. In case you need more information about FIPS on a specific platform, you can [submit a support case online](#) or [contact us by phone](#).



NOTE

The tomcat-native is upgraded to version 1.1.34.

1.4. Set OPENSSL_CONF and LD_LIBRARY_PATH

You need to set **OPENSSL_CONF** and **LD_LIBRARY_PATH**.

Using the custom engine is feasible as per the upstream documentation. For more information see, <https://www.openssl.org/docs/manmaster/apps/config.html>

**NOTE**

To get your custom engine working, you have to set it in the upper section of the **openssl.cnf** file before any other section. Then, you need to export the **OPENSSL_CONF** variable to make **openssl** use this configuration.

The sample configuration for JBoss Web Server is installed in **/home/user/jboss-ews-2.1**:

- **export OPENSSL_CONF=/home/user/jboss-ews-2.1/httpd/conf/openssl/pki/tls/openssl.cnf**
- **export LD_LIBRARY_PATH=/home/user/jboss-ews-2.1/httpd/lib:\$LD_LIBRARY_PATH**

The configuration of environment variables is required when the **httpd**, **httpd.event**, and **httpd.worker** are run directly. When **apachectl** script is used for starting the httpd server, the **postinstall** script updates the correct **LD_LIBRARY_PATH** and **OPENSSL_CONF** variables in the **apachectl** script.

2. SUPPORTED CONFIGURATIONS

For supported hardware and software configurations, see the JBoss Enterprise Web Server Supported Configurations reference on the Customer Portal at [JBoss Enterprise Web Server Supported Configurations](#) page.

3. CHANGES AND RESOLVED ISSUES

httpd

1182341 - httpd22 service is not enabling the right MPM

Prior to JBoss Web Server 2.1.1, it was not possible to use the worker MPM. This is because the systemd unit explicitly called the httpd prefork binary. This is resolved by updating the systemd unit so that it uses the HTTPD variable defined in the sysconfig file, or prefork, by default.

1292824 - httpd22: rpm scripts act on httpd.service rather than httpd22.service

httpd22 package for EL7 provides a service file named **httpd22.service**. The rpm scripts are now updated to use that name and not to use **httpd.service**

httpd,openssl,tomcat-native

1342073 - Upgrade openssl from 0.9.8 to 1.0.2h

Added support of TLSv1.2 and new ciphers. This is because openssl 0.9.8 is end of life and no longer supported. SSLv2 and SSLv3 and some unsafe ciphers have been removed.

1358118 CVE-2016-5387 Apache HTTPD: sets environmental variable based on user supplied Proxy request header [jbrews-2.1.0]

1338646 CVE-2016-3110 CVE-2016-3110 mod_cluster: remotely Segfault Apache http server

1337151 CVE-2016-2105 CVE-2016-2105 openssl: EVP_EncodeUpdate overflow [jbews-2.1.0]

1337155 CVE-2016-2106 CVE-2016-2106 openssl: EVP_EncryptUpdate overflow [jbews-2.1.0]

1182872 CVE-2014-3570 CVE-2014-3570 CVE-2015-0204 openssl: various flaws [jbews-2.1.0]

1305629 CVE-2014-0226 httpd: changelog typo for previous release notes relative to CVE-2014-0226

1219591 - /var/run/httpd22 file is deleted after reboot

Prior to EWS 2.1.1, when a rhel-7 server reboots the `/var/run/httpd22` file was deleted and it was not possible to start the httpd22 service again. This was resolved by adding the directory to the system's `tmpfiles.d` configuration so that the system recreates the directory after every reboot.

1305580 - httpd supplied `jb-ews-2-for-rhel-6-server-rpms` deplist is missing `apr-util-ldap`

Included a sub-package that contains the ldap dependency. `apr-util-ldap` is in an optional RHEL7 channel, therefore the new sub-package is added, customers using ldap authentication need to install it with the dependency.

1251796 - Need 2048-bit DH support for JWS HTTPD

OpenSSL is updated to version 1.0.2h allowing to append newly generated `DH_PARAM` key to default certification file `localhost.crt`.

After installing httpd and running `.postinstall` script use few more commands to extend default certification file if needed. Run `openssl` provided by zip/rpm package with `<path_to_provided_openssl_folder>/openssl dhparam -out dh_2048.pem 2048` for generating `DH_PARAM` with 2048-bit key. Append the content of `dh_2048.pem` to `localhost.crt` created by `.postinstall` script. `httpd/conf.d/ssl.conf` should show the destination of file. Now, start the httpd server.

The server starts with extended Server Temp Key: DH, 2048 bits. You can verify it by running `<path_to_provided_openssl_folder>/openssl s_client -connect localhost:443 -cipher DHE-RSA-AES256-GCM-SHA384`.

1342071 - Upgrade `mod_jk` to 1.2.41

Previously in JBoss Enterprise Web Server, an outdated version of `mod_jk` was included in the product. This is now fixed in JBoss Enterprise Web Server 2.1 by including `mod_jk` version 1.2.41, which incorporates the required miscellaneous bug fixes into the product.

httpd,mod_cluster

1309598 - `ProxyErrorOverride On` disables workers when a 50x error code is returned by the backend server

When a `VirtualHost` uses `ProxyPass` to proxy traffic, the backend uses `ProxyErrorOverride` to host custom error pages on the Apache httpd side. When the backend replies with a 50x error code `mod_proxy/mod_cluster` marks that worker as down, breaking the session stickiness. This issue is fixed.

1339966 - upgrade mod_cluster native to 1.2.13.Final

Previously in JBoss Enterprise Web Server, an outdated version of mod_jk was included in the product. This is now fixed in JBoss Enterprise Web Server 2.1 by including mod_jk version 1.2.41 is included which incorporates the required miscellaneous bug fixes into the product.

1342074 - Upgrade mod_cluster from 1.2.12.Final to 1.2.13.Final

Previously in JBoss Enterprise Web Server, an outdated version of mod_cluster was included in the product. This is now fixed in JBoss Enterprise Web Server 2.1 by including mod_cluster version 1.2.13 is included, which incorporates the required miscellaneous bug fixes into the product.

mod_jk**1328231 - mod_jk Segmentation fault when trying to resolve unknown host****mod_cluster****1338642 - mod_cluster undersizes the connection pool**

The connection pool was undersized causing the ping to fail when all connections of the pool were used. Causing the following error message: [error] (70007)The timeout specified has expired: proxy: ajp: failed to acquire connection for ...

This is fixed to increase the connection to ThreadsPerChild+1.

1340958 - UpperCase Alias never matches any context

The worker virtual host aliases were treated as case-sensitive. So, one FQDN used as an alias, typed once upper case and once lower case were treated as two different aliases. This issue is fixed in this release. All aliases are converted to lower case. For example, EXAMPLE.COM or example.com, alias is handled as the same alias.

mod_cluster**1338644 - Add JVMRoute or node identifier to httpd/mod_cluster errors**

Mod_cluster error messages used to state merely the fact that an error occurred. With this patch, the offending worker's JVMRoute is printed in the log so as it is easier for user to determine the cause of the problem.

1338641 - StickySessions does not work for ProxyPass from unenabled context

The StickySessions works for ProxyPass from unenabled context. This has been fixed in this release.

4. KNOWN ISSUES

httpd**978978 - Unexpected differences in httpd/include/ap_config_layout.h in ZIP and RPM**

In JBoss Enterprise Web Server 2.1.1, the following C macros are available in the ZIP distribution but are not present in the RPM distribution in `httpd/include/ap_config_layout.h`:

```
#define DEFAULT_EXP_LIBEXECDIR "/usr/lib/httpd/modules"  
#define DEFAULT_REL_LIBEXECDIR "/usr/lib/httpd/modules"  
#define DEFAULT_EXP_INSTALLBUILDDIR "/usr/lib/httpd/build"  
#define DEFAULT_REL_INSTALLBUILDDIR "/usr/lib/httpd/build"
```

1362188 - EWS 2.1.1 CR1: snmp module doesn't response at solaris sparc

SNMP does not respond on the defined port in the `snmpd.conf` file in solaris sparc.

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".

1362029 - EWS 2.1.1 CR1: snmp module ignore conf setup

The SNMP module does not start on the defined port specified in the `snmpd.conf` and uses the default port. In order to make the `httpd` read the `snmpd.conf` correctly, the solution is to place it under `httpd's conf/` directory, the directory in which `httpd.conf` resides.

1358422 - LD_LIBRARY_PATH entries exported in Unix session are overridden in apachectl script

When `LD_LIBRARY_PATH` content was overwritten by `apachectl`, you cannot set it before starting `apachectl`. The workaround is to add `$LD_LIBRARY_PATH` after `:` on the line: `export LD_LIBRARY_PATH="$currentDir/lib:` in the `apachectl` script.

1133129 - Request to resolve upstream bug 39737

On Windows, the access log format "%{tid}P" logs invalid thread IDs.

1360822 - EWS 2.1.1 CR1: snmp module contains discrepancy in snmp.conf.sample at windows

The `Httpd` does not start due to missing "modules/" prefix before declaring `.so` files in `conf.d/mod_snmpd.conf.sample`.

The workaround is to add "modules/" prefix to `libsnpcommon.so` and `libsnpmonagt.so`.

The `conf.d/mod_snmp.conf` should contain `LoadModule snmpcommon_module modules/libsnpcommon.so LoadModule snmpagt_module modules/libsnpmonagt.so`.

httpd,tomcat6,tomcat7**1364453 - Socked bind failed on link-local [IPv6]**

Attempting to use a link-local scoped ipv6 address yields an exception and prevents httpd from binding to the address. Regarding **httpd** and since the upstream bug https://bz.apache.org/bugzilla/show_bug.cgi?id=59396 is not fixed, the only way is to use a **link-local** scoped IPv6 address. Define the address along with scope ID or the link-local scoped interface, and followed by the port number without using brackets. For example, **Listen fe80::4eeb:42ff:fedb:9dbd%3:80**.

On Tomcat, to use a **link-local** scoped IPv6 address, the workaround is to specify the scope ID along with the address in the address section. For example, **address="fe80::124a:7dff:fea1:22be%3"**.

1363653 - Tomcat security manager Error [EWS-2.1.1]

While using Tomcat 7 and jdk 1.6 with security manager, the Tomcat catalina log includes the **java.security.AccessControlException: access denied** after it is started. You can ignore this error message.

mod_jk**900273 - mod_jk is unable to handle space after equal '=' sign in uriworkermap.properties where worker name includes a hyphen '-'**

In JBoss Enterprise Web Server, when a worker name includes the - character and a space is added after the = character in the **uriworkermaps.properties** file, the following error appears in the mod_jk logs:

```
[25736:139832971024352] [error] uri_worker_map_ext::jk_uri_worker_map.c
(506): Could not find worker with name jk-stauus in uri map post
processing. [25736:139832971024352] [error]
uri_worker_map_ext::jk_uri_worker_map.c (506): Could not find worker
with name jk-stauus in uri map post processing.
```

This is a known issue in JBoss Enterprise Web Server 3.0. A workaround for this issue is to remove the space after the = sign. Therefore, **/jk-status|/* = jk-status** is changed to **/jk-status|/* =jk-status**.

mod_cluster**1340955 - A VirtualHost's ProxyTimeout or Timeout does not always properly override global Timeout**

With a shorter global Timeout and a longer ProxyTimeout specified in the VirtualHost, the VirtualHost's ProxyTimeout does not always take precedence.

1338645 - MODCLUSTER000022: Failed to drain n remaining pending requests

A. REVISION HISTORY

Revision 2.1.1-15

Thursday March 16 2017

David Michael

Red Hat JBoss Web Server 2.1.1 GA.