



Red Hat JBoss Enterprise Application Platform 6.4

6.4.0 Release Notes

For Use with Red Hat JBoss Enterprise Application Platform 6

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Abstract

These release notes contain important information related to Red Hat JBoss Enterprise Application Platform 6.4. Read these Release Notes in their entirety before installing the product.

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1. OVERVIEW

Red Hat JBoss Enterprise Application Platform 6 (JBoss EAP 6) is Red Hat's response to significant changes in the way organizations develop and deploy enterprise applications. As organizations seek to lower operational costs and reduce time to market for new applications, JBoss EAP 6 has been rebuilt for a vision of the future, boasting an innovative modular, cloud-ready architecture, powerful management and automation, and world class developer productivity.

JBoss EAP 6 is Java EE 6 certified and features powerful yet flexible management, improved performance and scalability, and many new features to improve developer productivity. All with Red Hat's market-leading reputation for certification and support, ensuring your administration and development needs continue to drive forward into the future and beyond.

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2. NEW FEATURES, ENHANCEMENTS AND TECH PREVIEWS

2.1. New Features

The following new features and enhancements are available in JBoss EAP 6.4.

Apache Server and Connectors

mod_snmp and mod_rt now available on ppc64

As of JBoss EAP 6.4, **mod_snmp** and **mod_rt** are available on ppc64 Red Hat Enterprise Linux systems.

API

Enable configuration of the global session timeout for the web container through the management APIs

The global HTTP session timeout may now be configured using the Management APIs.

Expose public API for WebSockets use cases.

All classes in the **javax.websocket** and **javax.websocket.server** packages of the Websockets API are now publicly exposed.

Authentication Manager

A logout() method was added to org.jboss.security.AuthenticationManager interface

A logout method has been added to **org.jboss.security.AuthenticationManager** interface. Be aware of this if you have implemented a custom **org.jboss.security.ServerAuthenticationManager**, like the following example.

```
<valve>
<class-name>org.jboss.as.web.security.jaspi.WebJASPIAuthenticator</class-name>
<param>
<param-name>serverAuthenticationManagerClass</param-name>
```

```
<param-value>com.acme.ServerAuthenticationManager</param-value>
</param>
</valve>
```

Clustering

fail_on_status for mod_cluster

Support for **fail_on_status** has been added to `mod_cluster`. **fail_on_status** can be used to specify one or more HTTP status codes, so that if a worker node in a cluster returns one of the specified status codes, it will cause that worker to fail. The load balancer will then send future requests to another worker node in the cluster.

Domain Management

Support nested expressions

Expressions may be nested, which allows for more advanced use of expressions in place of fixed values. Nested expressions are permitted anywhere that expressions are permitted, with the exception of Management CLI commands. As for normal expressions, the supported sources for resolving nested expressions are: system properties, environment variables and the Vault.

Ability to read boot errors via the admin APIs

A new Management CLI command has been created, which outputs details of any errors which occurred on bootup. The command is **read-boot-errors** and has no parameters.

Kerberos auth for management over HTTP/HTTPS

It is now possible to configure authentication of management operations made via HTTP/HTTPS using Kerberos. This means it is now possible to authenticate to the Management Console using Kerberos.

EE

Ability to specify a resource adapter reference in `jboss-ejb3.xml` without the ear name

In the **`jboss-ejb3.xml`** deployment descriptor you can specify a resource adapter for a message driven bean (MDB) to use, without specifying the name of the EAR, in cases where the deployment descriptor is in the same EAR as the resource adapter.

EJB

New implementation of `StrictMaxPool`

Contention within the EJB `StrictMaxPool` has been eliminated by changing the underlying data structure.

Ability to use alternate persistent stores for unclustered EJB timers

EJB timers' data may now be stored in a database and shared between clustered server instances. Advantages of this method include suitability to high availability.

Enable wildcard for `<ejb-name>` in `jboss-ejb3.xml`

Support for use of wildcards (*) has been enabled for `<ejb-name>` in `jboss-ejb3.xml`.

Hibernate

Deliver new Hibernate Dialect for MySQL 5.7

A new dialect has been added to Hibernate to support MySQL 5.7. To prevent issues as a result of rounding fractional digits in date and time, the dialect currently has the following limitations: Hibernate will assume **datetime(6)** for "timestamp" columns, and Hibernate will assume **time(0)** for "time" columns.

HornetQ

Ability to close all consumers on a destination and the connections for these consumers

The ability to close all consumers on a destination and the connections for those consumers has been added. This command is available via the Management CLI, management API and JMX.

Abort slow HornetQ consumers

The rate of consumption for message consumers may now be monitored automatically, and action taken if the rate does not meet specific criteria. A minimum consumption rate is specified in messages per second and if it is not met, either the consumer's connection is killed or a management notification is raised, which can be handled by an application. By default this feature is disabled.

Ability to terminate a connection by JMS User

HornetQ now supports termination of connections with the JMS user as the criteria. Previously it was only possible to terminate connections according to the client ID or IP address.

Hibernate Search

Deliver Hibernate Search as a default module

Hibernate Search is now a standard component of JBoss EAP.

Installer

Test datasource and LDAP connections in the installer

When installing JBoss EAP in either GUI or console mode, the installer now provides the option to verify LDAP and datasource connectivity during the installation process. This ensures that the parameters provided during installation are valid.

JBoss Web

Load taglibs from jars in a JBoss Module

Tag Library Descriptors (TLDs) may be separated from their respective applications, allowing for easier additions and updates. To use this feature, create a custom JBoss EAP 6 module that contains the TLD JARs, and declare a dependency on that module in the applications.

Ability to configure HttpOnly SSO cookies

A new attribute has been added to the SSO configuration of a virtual server: **http-only**. When set to **true**, this attribute adds **HttpOnly** to the Cookie header, indicating that the browser should restrict access from non-HTTP APIs.

Users should be aware that the option to support this restriction rests with the client (the web browser).

This action **may** mitigate the risk of security vulnerabilities by restricting access from non-HTTP APIs (such as JavaScript).

JCA

Support enabled for "datasource_class" system property

By default, when a database driver JAR contains a **services/javax.sql.Driver** file, the `datasource_class` attribute in the datasource definition is ignored and the Driver class in the JAR used instead. To override this default behavior and use the `datasource_class` attribute, set the property **-Dironjacamar.jdbc.prefer_datasource_class=true**.

Detect and throw deployment exception for JCA 1.7 resource adapters

An exception is thrown if JCA 1.7 deployments are detected as they belong in an EE 7 based platform.

Add leak detector pool

IronJacamar now features a connection pool implementation which monitors connections and provides feedback if they are never released by the application. When either the pool is shut down or flushed, a stack trace is output to the system logs. To enable the connection pool, set the system value **ironjacamar.mcp** to **org.jboss.jca.core.connectionmanager.pool.mcp.LeakDumperManagedConnectionPool**. To have the stack trace output to a separate file, set the system value **ironjacamar.leaklog** to the name and path of the desired file.

```
-
Dironjacamar.mcp=org.jboss.jca.core.connectionmanager.pool.mcp.LeakDumperManagedConnectio
nPool
```

```
-Dironjacamar.leaklog=leaks.txt
```

JMS Operations

Add remove-jndi operation for JMS resources

The **remove-jndi** operation is now enabled for JMS resources.

JMX

Enable JMX MBean Registration and Unregistration notifications for JBoss' facade MBeans in EAP 6

MBeans in the **jboss.as** and **jboss.as.expr** domains are not truly MBeans but instead facades. As a result, MBean registration and unregistration events were not available. Registration and unregistration events for these domains have now been enabled, allowing these events to be monitored.

Logging

Requesting suffix support for size-based log file rotation

Size-based log file rotation has been enhanced with support for a timestamp suffix which is appended to each log file when it is rotated. The format of the timestamp is configurable according to your requirements. Previously it was only possible to have a numeric suffix added to rotated log files, which made finding the relevant log file difficult in some circumstances.

Implement `java.util.logging.LogManager.getLoggerNames()` in JBoss Logging

A `getLoggerNames()` method has been added to `java.util.logging.LogManager` which returns the names of all loggers.

Audit syslog handler should be able to automatically reconnect

The audit syslog handler has been enhanced with a new attribute - **reconnect-timeout** - which specifies the time period between attempts to reconnect to the syslog server.

Make PeriodicSizeRotatingFileHandler configurable directly via CLI/web console

The **PeriodicSizeRotatingFileHandler** is now able to be configured via either the Management Console or Management CLI. Previously such a handler was only able to be configured by using a custom handler. The new configuration methods are easier and less prone to error.

Mask "password" System Properties

Any system property which contains the text **password** (regardless of case) is replaced with the text **redacted** when output via logging. This improves security by avoiding having passwords output in plain text in log files.

Management CLI

The CLI should support property substitution for names of elements and not only for parameters

Property substitution for *names* of elements has been added. Previously the Management CLI only supported property substitution for parameters.

Add echo command for use in CLI scripting

A new management CLI command - **echo** - has been added. It outputs verbatim any text which follows the command.

Management Console

Display server logs in graphical console

You can now view server and application logs in the JBoss EAP Management Console to help diagnose errors, performance problems, and other issues. For a log to be viewable in the Management Console Log Viewer, it must be located in the server's **jboss.server.log.dir** directory. The Log Viewer also respects user RBAC role assignments, so a user logged in to the Management Console can only view logs that they are authorized to access.

Access Red Hat plugin

Access to commonly used features of the Red Hat Customer Portal are now available from within the Management Console. The top navigation bar of the Management Console contains a drop-down menu: Red Hat Access. Clicking on this menu will reveal three task-specific links to the Customer Portal: **Search Customer Portal**, **Open Case** and **Modify Case**.

Expose web container global session timeout in the Console

The global HTTP session timeout may now be configured using the Management Console.

Naming

Use external-context for remote TIBCO ems lookup

When using the generic JMS resource adapter to connect to an external messaging server, an external context may be used instead of writing a custom ObjectFactory. The following is an extract of an *example* use of **<external-context>**. Replace the example properties with those appropriate for your JMS provider.

```
<external-context name="java:global/tibco" module="com.tibco.tibjms"
class="javax.naming.InitialContext">
```

```
<environment>
  <property name="java.naming.factory.initial"
value="com.tibco.tibjms.naming.TibjmsInitialContextFactory"/>
  <property name="java.naming.provider.url"
value="TIBCO_EMS_SERVER_HOST_NAME:PORT"/>
  <property name="java.naming.factory.url.pkgs" value="com.tibco.tibjms.naming"/>
  <property name="org.jboss.as.naming.lookup.by.string" value="true"/>
</environment>
</external-context>
```

Patching

Access to details of patches has been improved

The Management CLI command **patch** has two additional arguments: *inspect* and *info*. The *info* argument outputs information on *installed* patches. The *inspect* argument outputs information about a *downloaded* patch.

The **Patch Management** panel of the Management Console has been improved to include a brief description of each patch and a link to a more detailed article.

Performance

Backport AbstractPool initLock() synchronization elimination from 1.2

A lock was created when calling to register a transaction after getting a connection from the pool. Since the transaction registry already handled locking, as it already used a concurrent collection, the additional lock handling was unnecessary, and so removed.

New managed connection pool

A new managed connection pool in JCA subsystem has been created that improves performance and eliminates thread contention within the server.

PicketLink

Console plugin to integrate PicketLink subsystems into EAP console

PicketLink's subsystems are now configurable via the JBoss EAP Management Console, resulting in easier configuration.

Modify the PicketLink IDP to support SAML 2.0 unsolicited responses

The PicketLink Identity Provider (IDP) has been enhanced so that it can now send SAML 2.0 unsolicited responses to the Service Provider.

PicketLink should be configurable to ignore ajax calls

In case the user is not authenticated and sends a request to both IdP and SP using AJAX, PicketLink will respond with a 403 HTTP status code instead of the login page. AJAX requests are identified by checking the presence of the **X-Requested-With** header with value **XMLHttpRequest**.

RESTEasy

RESTEasy logging through JBossLogging

RESTEasy logging functionality is now handled by JBossLogging. The benefits of this change include support for internationalization of log messages.

New security parameters

RESTEasy has two new parameters intended to improve security in processing **org.w3c.dom.Document** documents. Both parameters are **context-param** parameters and can be set up in the **web.xml** of the application.

The parameter **resteasy.document.secure.processing.feature** imposes security constraints in processing **org.w3c.dom.Document** documents and JAXB object representations.

The parameter **resteasy.document.secure.disableDTDs** prohibit DTDs in **org.w3c.dom.Document** documents and JAXB object representations.

The default value for **resteasy.document.secure.processing.feature** and **resteasy.document.secure.disableDTDs** is **true**. To disable one of them or both, add following to the application's **web.xml** file.

```
<context-param>
  <param-name>resteasy.document.secure.processing.feature</param-name>
  <param-value>>false</param-value>
</context-param>
<context-param>
  <param-name>resteasy.document.secure.disableDTDs</param-name>
  <param-value>>false</param-value>
</context-param>
```

RPM Installation and Updates

There is now a choice of RPM channels or repositories to which to subscribe for installation and updates of JBoss EAP via RPM. The current JBoss EAP channel provides the latest version, while a minor channel provides a specific minor release and all applicable patches. This allows you to maintain the same minor version of JBoss EAP 6, while still staying current with high severity and security patches. For further details of the available channels, see <https://access.redhat.com/solutions/1346093>.

Security

SSLValve allows for user-configurable header names

The names of HTTP headers that SSLValve uses for passing SSL/TLS information from the originator were predefined, for example: `ssl_client_cert`, `ssl_cipher`, `ssl_session_id` and `ssl_cipher_usekeysize`. With this change, the names of the headers are now customizable so that the originator can use an arbitrary name of the HTTP header, with the name specified in the SSLValve configuration.

Kerberos based authentication for Remoting

Support for Kerberos authentication for EJBs and EJB clients has now been enabled.

Management security realms should cache LDAP data

The management security realm now caches LDAP data, which helps reduce the number of LDAP requests.

Authorization with static Kerberos credentials to Oracle DB on Oracle JVM

Authorization using static Kerberos credentials in an Oracle DB datasource on Oracle JVM has been added. Note that Oracle DB driver version 11.2.0.3 or newer is required, also security domain cache must be enabled.

Authorization with static Kerberos credentials to SQLServer on Oracle JVM

Authorization using static Kerberos credentials in a Microsoft SQL Server datasource has been added. Note that this feature is only supported for non-XA connections.

Add support for external password of keystore to PicketBoxVault implementation

The Vault feature now supports the option of having the keystore password provided via an external command or a custom class.

Add "remove vault entry" option to vault tool

The Vault CLI tool has been improved with the addition of the ability to remove a value stored in a vault.

Use of the `-secmgr` flag for the configuration of a Java Security Manager

Running JBoss EAP within the Java Security Manager is now enabled by either adding the `-secmgr` parameter to the startup script, or enabling the option `SECMGR="true"` in the configuration file. Enabling the Java Security Manager with the `-Djava.security.manager` Java system property is no longer possible. As a result of this change, custom security managers cannot be used. Starting JBoss EAP with a custom security manager enabled will result in JBoss EAP exiting with a non-zero exit code on startup. See the *Security Guide* for details of the changes required to enable the Java Security Manager.

Supported Configurations

Oracle JDK 8

Oracle Java Platform, Standard Edition 1.8 (JDK 8) has been added to the list of supported configurations.

IBM JDK 8

IBM JDK 8 has been added to the list of supported configurations.

DBMS

The following DBMS have been certified and are now fully supported:

- Enterprise DB Postgres Plus Advanced Server 9.3
- MySQL 5.7
- IBM DB2 10.5
- Microsoft SQL Server 2014
- PostgreSQL 9.3

Deliver `mod_snmp` for tested RHEL versions on PPC

The Simple Network Management Protocol (SNMP) module `mod_snmp` is now supported on PowerPC64 Architecture running Red Hat Enterprise Linux 6 and Red Hat Enterprise Linux 7.

WebSockets 1.0

The WebSocket 1.0 protocol provides two way communication between web clients and servers. Communications between clients and the server are event-based, allowing for faster processing and smaller bandwidth compared with polling-based methods.

The JBoss EAP 6.4 WebSocket implementation provides full dependency injection support for server endpoints, however, it does not provide CDI services for client endpoints. CDI support is limited to that required by the EE6 platform, and as a result, EE7 features such as interceptors on endpoints are not supported.

[Report a bug](#)

2.2. Enhancements

Installer

BZ#1169462 - Installer should look automatically look for variables file during automated installs

In JBoss EAP 6.4 the installer now automatically looks for a variables file during installation.

The installer will look for the **.variables** file only if an automated installation is being run and no variables are passed in through the **-variables** or **-variablefile** tags.

The installer will look in the location of the **auto.xml** file first. If nothing is found there it will look in the current working directory for the user.

If the user specifies a remote **auto.xml** file the installer will only look for the **.variables** file in the location user's current working directory.

The **.variables** file will also only be detected if it follows this naming convention;
<NAME_OF_AUTO.xml>.variable.

Transaction Manager

BZ#1168973 - JTS participants are not showing up in the tooling

This release of JBoss EAP 6 contains an enhancement to the Transaction Manager component. Previously, not all participants were appearing in the log viewer.

Now, the following types of participants will be shown:

- AssumedCompleteHeuristicTransaction
- AssumedCompleteHeuristicServerTransaction
- AssumedCompleteTransaction
- AssumedCompleteServerTransaction

See http://bugzilla.redhat.com/show_bug.cgi?id=1168973

[Report a bug](#)

2.3. Features Provided as Tech Preview Only

The following configurations and features are known to have issues and are provided as technology previews only. They are not supported in a production environment.

WS-Trust/STS with JBoss Web Services

JBoss Web Services now exposes WS-Trust/STS capabilities from the underlying CXF implementation.

Apache CXF 2.7.13 changes SAML/WS-Trust

The Security Token Service (STS) now validates ActAs tokens too, while it was previously validating OnBehalfOf tokens only; as a consequence, valid username/password have to be specified in the UsernameToken that is provided as ActAs token.

The SAML Bearer tokens are now required to have an internal signature; additionally, the **org.apache.ws.security.validate.SamlAssertionValidator** has a **setRequireBearerSignature** method to enable/disable this signature verification.

Adding and Removing Modules with the JBoss CLI

The CLI offers new commands to add and remove modules.

RestEasy Validation with the Hibernate Validator

RestEasy now includes a validation provider to support the Hibernate Validator delivered with JBoss EAP 6.

Multi-JSF

This feature enables a user to replace the JSF implementation provided with JBoss EAP 6 with a user-supplied JSF implementation.

mod_jk and IPv6

The mod_jk version has been updated. This new version contains support for IPv6, however this feature has not been fully tested.

[Report a bug](#)

3. RESOLVED AND KNOWN ISSUES

3.1. Resolved Issues

Patching

BZ#1110117 - Querying patching MBeans during shutdown results in **IllegalStateException**

An attempt to query the patch status of a JBoss EAP instance could previously result in an **IllegalStateException** error being thrown. The root cause of this error was that the **InstallationManagerService** was not available as it had already been shut down. This issue has now been resolved by first checking if the **InstallationManagerService** is available and if so, the query proceeds.

See http://bugzilla.redhat.com/show_bug.cgi?id=1110117

EJB

BZ#1172856 - Server side EJB Handler not compression response

When using EJB compression in previous versions of JBoss EAP 6, the client was sending a compressed request, but the server was sending an uncompressed response, even though it was configured to return a compressed response.

In this release, the server will respond with a compressed response as it should.

See http://bugzilla.redhat.com/show_bug.cgi?id=1172856

BZ#1118432 - java.util.concurrent.RejectedExecutionException if a remote-naming InitialContext should be closed

If remote naming is used to lookup an EJB it creates an **ejb-client** context. If the remote naming context object was closed when done, the client logged the error shown below, because the **ejb-client** context was already shut down and it tried to do so again. The underlying cause of this error has been resolved by checking the **ejb-client** context before being closed.

```
ERROR [org.jboss.remoting.handler-errors] Close handler threw an exception:  
java.util.concurrent.RejectedExecutionException
```

See http://bugzilla.redhat.com/show_bug.cgi?id=1118432

BZ#1156620 - Memory leak on undeploy & too many channels caused by ejb client not disassociating

This release of JBoss EAP 6 fixes a memory leak caused by an application deployed that is using **jboss-ejb-client.xml** to configure remote EJB clients connections.

This fix also resolves another issue wherein scoped context was used and too many channels occurred (as a result of channels not being closed until all channels to a given host are closed). The channel is now closed when **Context.close()** is called, even if other channels are open to the same host.

See http://bugzilla.redhat.com/show_bug.cgi?id=1156620

BZ#1088463 - If large parameters are given to an EJB method invocation the client show a EJBCLIENT000032 Exception - the OutOfMemoryError is swallowed

In the previous version of JBoss EAP 6, when a large value is passed in a parameter for EJB invocation, the channel crashed and the out of memory error was not displayed on the server. On the **ejb-client**, an exception indicating the error occurred during the unmarshalling of some parameter with a possible OOM cause is displayed. This issue is now fixed in the current version of JBoss EAP 6. When a large value is passed in a parameter for EJB invocation, an out of memory exception is displayed on the server and a hint is displayed on the client side.

See http://bugzilla.redhat.com/show_bug.cgi?id=1088463

CDI/Weld

BZ#1159570 - CDI injected topic does not work

In previous versions of JBoss EAP 6, the injection of a JMS Topic into a CDI bean failed with the following error:

```
javax.jms.InvalidDestinationException: Not a HornetQ Destination:HornetQTopic[EventTopic]  
  
@javax.inject.Inject
```


private javax.jms.Topic topic

In this release, the injection succeeds without error.

See http://bugzilla.redhat.com/show_bug.cgi?id=1159570

BZ#1166133 - Bean proxy class has non-varargs method for original varargs method

In previous versions of EAP, varargs methods were misrepresented in bean proxies as non-varargs methods with an array argument. This caused problems in frameworks which depend on reflection.

The issue was resolved by adding the missing vararg flag in bytecode of the proxied method. As a result, vararg methods are now represented correctly in bean proxies.

See http://bugzilla.redhat.com/show_bug.cgi?id=1166133

BZ#1146853 - Proxy naming conflict when using static nested classes with the same name and package

In previous versions of EAP if two static nested classes with equal names enclosed by different classes were used as beans, Weld generated proxies with equal class names for both such beans and **ClassCastException** were thrown when such beans were used.

This was fixed by amending the proxy class name generation procedure to include the name of the enclosing class. Two static nested classes can now have the same simple class name even when enclosed by two different classes in the same package.

See http://bugzilla.redhat.com/show_bug.cgi?id=1146853

BZ#1054876 - Proxy creation fails when a superclass does not have a no-arg constructor

Previous versions of JBoss EAP included an implementation of Weld that performed an unnecessarily strict check that constructors of all superclasses have public no-arg constructors.

This issue has been resolved in this release. Now only the proxiability of the bean itself is checked, not all supertypes.

See http://bugzilla.redhat.com/show_bug.cgi?id=1054876

BZ#1149644 - CDI Interceptor cannot inject EJB session context.

In previous versions of JBoss EAP there was an omission in the Weld integration code as a result of which it was not possible to inject an EJB session context into a CDI interceptor.

This was fixed in the integration code by providing the proper EJBContext JNDI location to injection points for all EJB contexts.

See http://bugzilla.redhat.com/show_bug.cgi?id=1149644

BZ#1138192 - Package-private members not working on CDI beans in static modules

In previous versions of JBoss EAP there was a classloading optimization in the Weld integration code which caused an **IllegalAccessException** to be thrown when any normal-scoped bean from a static module which declared a package-private no-arg constructor got injected into a bean from a deployment.

This was fixed by limiting the optimization and using a static module's `ClassLoader` for proxies of classes originating from the given static module.

The **`IllegalAccessException`** is no longer thrown for beans with package-private constructors in static modules.

See http://bugzilla.redhat.com/show_bug.cgi?id=1138192

BZ#1086555 - Weld - Specialization of generic beans throws inappropriate exception

In a previous release of JBoss EAP 6, setting a specialization on a generic bean resulted in a **`DefinitionException`** being thrown.

This behavior was not intended as has been addressed in this release. Setting a specialization on a generic bean now operates as expected.

See http://bugzilla.redhat.com/show_bug.cgi?id=1086555

Domain Management

BZ#1111575 - subnet-match is does not respect 'value' attribute

Previous releases of JBoss EAP 6 carried a bug that prevented `subnet-match` from respecting the **`value`** attribute.

In this release of the product, the issue has been resolved and the **`value`** attribute works as expected.

See http://bugzilla.redhat.com/show_bug.cgi?id=1111575

BZ#1159709 - IO error during deployment scanning triggers undeployment

In previous versions of JBoss EAP 6, **`FileSystemDeploymentService.scanDirectory()`** method treated the null return value of **`File.listFiles()`** as an empty list rather than an error.

As a result, IO errors occurring during deployment scanning could trigger the un-deployment of applications.

This issue has been addressed and in this release of the product, deployed applications are no longer undeployed if file limit is reached.

See http://bugzilla.redhat.com/show_bug.cgi?id=1159709

BZ#1133328 - Runtime updates to outbound LDAP connections not performed on host controller.

JBoss EAP 6's domain management operation handlers can specify if a runtime update should be performed as a result of an update to the model. In previous versions, the operation handler was only requesting runtime updates for outbound LDAP connection definitions if running in a server process.

As a result, changes made to outbound LDAP connections within a host controller process were not leading to immediate runtime updates for that process.

In this release of the product, the affected operation requests runtime updates are applied in all process types and changes made to outbound LDAP connections are reflected immediately for both application server processes and non-application server processes.

See http://bugzilla.redhat.com/show_bug.cgi?id=1133328

BZ#1148565 - Management HTTP server closing idle connections prematurely.

JBoss EAP's management HTTP server contains a timeout handler which is intended to terminate idle connections after 5 minutes.

In previous versions of the product the timeout was terminating connections after 30 seconds. Any active SSL sessions were also terminated as a side effect of the connection being terminated. When the client's web browser reconnected for a subsequent invocation the a fresh SSL session had to be created.

In this release of the product, the idle connection timeout is now set correctly to 5 minutes.

Web browser initiated shut down of keep alive connections can now happen as intended, leaving any underlying SSL sessions intact and allowing the web browser to resume its previous session the next time it connects.

See http://bugzilla.redhat.com/show_bug.cgi?id=1148565

BZ#1106393 - Managed server shutdown unexpectedly when timeout during connection request to HC

In a previous version of JBoss EAP 6, after a managed server's connection to it's Host Controller failed, it would only make a single re-connection attempt.

This could cause the product to shut down unexpectedly if the re-connection failed.

In this release, connections to the Host Controller are re-tried indefinitely. Server instances no longer shut down due to loss of connection to the Host Controller.

See http://bugzilla.redhat.com/show_bug.cgi?id=1106393

BZ#1105677 - Nonexistent ldap group causes authentication to fail in security-realm

In previous release of JBoss EAP 6, a user containing a reference to a non-existent group returned a failure in authentication while performing principal-to-group searches of LDAP to load a user's group membership information. The user's authentication was aborted.

In JBoss EAP 6.4, this issue has been fixed by defining a skip-missing-groups attribute as "true" on the principal-to-group configuration, which allows missing groups to be ignored.

See http://bugzilla.redhat.com/show_bug.cgi?id=1105677

BZ#1073866 - Adding server-identity=ssl to SecurityRealm throws NPE in 6.3.0.DR2

In the previous release of JBoss EAP 6, the runtime updates returned a NullPointerException for the list of services being added, thus making the roll back of services, when needed, very difficult.

In JBoss EAP 6.4, this error is fixed and the list of service references is provided for runtime updates.

See http://bugzilla.redhat.com/show_bug.cgi?id=1073866

BZ#1151434 - The outbound-connections element doesn't validate against XSD after removing connection

Within the management mode, when a new outbound LDAP connection is defined, a resource is instantiated to hold the child ldap connections.

In previous versions of JBoss EAP 6, this resource was not removed after the last child connection is removed.

The behavior was encountered because the XML marshalling saw the outbound ldap connections in the model as being defined, and so wrote the **<outbound-connections>** element to contain them. As there were no connections in the model this element remained empty, which is invalid according to the schema.

Note: The parser is tolerant to this and this does not prevent a subsequent server start up.

In this release of the product the resource is removed once the last child has been removed and the parser now sees there are no defined outbound connections so an empty **<outbound-connections>** element is no longer written.

See http://bugzilla.redhat.com/show_bug.cgi?id=1151434

BZ#908236 - Defining a secure socket for http management without a security realm results in a NullPointerException

In previous versions of JBoss EAP 6, model validation was not being performed to ensure an HTTP management interface configured to enable SSL also referenced a security realm to obtain its SSLContext.

Without the validation, the SecurityRealm was null, which lead to a **NullPointerException**.

In this release the time updates are applied to the management model and additional checks are performed to ensure a security realm is associated with the HTTP management interface is SSL is being enabled.

If a user attempts to define a HTTP management interface with SSL but no SecurityRealm an error message is reported instead of the **NullPointerException**.

See http://bugzilla.redhat.com/show_bug.cgi?id=908236

BZ#1129400 - Unable to create resource-adapter using HTTP management interface

In previous versions of JBoss EAP 6, the logic in the operation to add a resource-adapter resource required that the target address be represented as a list of elements of DMR ModelType.PROPERTY.

This meant that HTTP-based management clients that used JSON could not reliably create operations using the expected format (as representing the \$PROPERTY element in JSON syntax can be problematic).

In this release of JBoss EAP 6, the handler for the resource-adapter **add** operation has been updated to use standard address parsing code which is more forgiving of formatting differences. As a result, operations that add a resource-adapter using the HTTP interface and JSON similar to the example above now succeed as expected.

See http://bugzilla.redhat.com/show_bug.cgi?id=1129400

BZ#1133961 - XML parsing mandating the 'force' attribute on username-to-dn even though it has a default value.

In JBoss EAP 6, where a **username-to-dn** element is defined for LDAP based authorization with security realms, the schema describes an optional attribute; **force**.

In previous versions of the product the parser was implemented to assume this attribute was mandatory.

This caused configurations which were valid according to the schema to be rejected by the parser if the optional attribute was omitted.

In this release the parser has been updated to reflect the fact that the attribute is optional and configurations that omit the **force** attribute will now be correctly parsed by the parser.

See http://bugzilla.redhat.com/show_bug.cgi?id=1133961

BZ#1052821 - Unnecessary DNS lookup when accessing web console with https

If a client connects to the server and the SSL session is initiated there is an attempt to resolve the clients host name. If the clients name is an address this involves a DNS look up to attempt to discover the name. This caused performance hit on every connection from a remote client while the DNS lookup is performed, in addition to this if the DNS server is unavailable this can introduce a long delay.

This issue has been fixed in JBoss EAP 6.4. A DNS lookup is now eliminated on the server when a client attempts to connect and establish a SSL session.

See http://bugzilla.redhat.com/show_bug.cgi?id=1052821

Transaction Manager

BZ#1162882 - JBTM-2188 - Some code that writes to the file store is missing PrivilegedAction blocks

In previous releases of JBoss EAP 6, if Security Manager was enabled then Narayana Transaction Manager could not be allowed read or write from the files of object store managed by FileSystemStore class.

This was because, when the security manager is used, it verifies that the code has permissions to access the file system. This process checks the entire method call chain, meaning there is a chance that some classes do not have permission to access the filesystem.

The fix implemented in this release is to access the file system as a privileged entity (**AccessController.doPrivileged()**), which reduces the stack to classes that the security manager recognizes as privileged to have file system access.

See http://bugzilla.redhat.com/show_bug.cgi?id=1162882

BZ#1133346 - XA Recovery scans can stall JBoss startup

In JBoss EAP 6, transaction recovery operates by asking resources for their view of in-doubt transaction branches using "RecoveryHelpers" provided by other subsystems. When a deployment registers one of these helpers, a lock is taken. The same lock is acquired when recovering a resource.

If the resource is slow to complete a recovery request, then the subsystem deployment (which is waiting for the lock) is similarly delayed.

In this release the contention on the lock is broken and subsystems deploy as expected.

See http://bugzilla.redhat.com/show_bug.cgi?id=1133346

BZ#1113225 - CMR: TX log does not show participants after crash.

In previous releases of JBoss EAP 6, the tooling for reading transaction logs did not expose CMR records.

This issue has been addressed in this release.

See http://bugzilla.redhat.com/show_bug.cgi?id=1113225

BZ#1077156 - Not possible to start XTS transaction on IPv6 with server bound to ::1

In a previous release of JBoss EAP 6, it was not possible to start an XTS transaction on IPv6 with a server bound to address `::1`. This was because this part of the address must be wrapped in square brackets; `[::1]`.

This issue has been resolved by splitting the URL into discrete sections and inserting square brackets as required before it is passed to the XTS core.

Note that if you are using the `-b` switch in a CLI comment, do not wrap the address portion of the URL in square brackets as this is contrary to the specification and will prevent Webservices from starting.

See http://bugzilla.redhat.com/show_bug.cgi?id=1077156

BZ#1032641 - IllegalStateException from periodic recovery when server is reloaded with XA datasource being defined

Previous versions of JBoss EAP 6 could encounter an **IllegalStateException** during some transaction recovery operations.

The transaction recovery system operates by querying resources for their view of 'in-doubt' transaction branches. It uses a "RecoveryHelper" which JCA registers to achieve this.

When a resource is removed from the system, the RecoveryHelper is de-registered. In previous versions of the product there was a race condition in the code whereby if the removal happened during a "recovery scan" then the helper was not removed.

This resulted in the possibility that transaction recovery would continue using resources even though they had been removed from the server (which could produce the **IllegalStateExceptions**).

In this release, if the current recovery scan is using the resource, it waits for it to finish and then remove the helper.

See http://bugzilla.redhat.com/show_bug.cgi?id=1032641

BZ#1124861 - Issue with issue recovering AA with CMR, recovers OK but via orphan detection

In previous releases of JBoss EAP 6, if the server crashed during an XA transaction, the XA resource did not always roll back immediately.

This issue has been corrected by an upgrade of **org.jboss.jbossts**. Transactions now roll back and logs are cleaned as expected.

See http://bugzilla.redhat.com/show_bug.cgi?id=1124861

BZ#900289 - Domain management API does not expose JTS orphans from the transaction object store

The transaction subsystem contained in JBoss EAP 6 maintains a log of pending transactions. This log is exposed to the console user.

In some circumstances a resource has a log of an in-doubt transaction branch for which there is no corresponding top level transaction log (but on disk there is a participant log). Such logs are called "orphans" and by default these were not exposed in previous versions.

As a result, if the transaction subsystem was configured to use JTS then these orphan records were not automatically removed resulting in a leak of available storage space.

In this release, the console user can override the default by setting the transaction subsystem property **expose-all-logs** to **true**. Then the console user has the option to manually delete these logs, preventing the leak.

See http://bugzilla.redhat.com/show_bug.cgi?id=900289

JMX

BZ#1113242 - RemotingConnector & VersionedConectionFactory need configurable connection, channel & versioned connection timeouts

Previous versions of JBoss EAP 6 contained several hard-coded JMX connection timeouts. In this release of the product, those intervals can now be configured via a system property or properties passed in when creating the JMXConnectorFactory: **JMXConnectorFactory.connect(serviceURL, environment)**;

The order of priority of these settings is as follows:

1. The default is 30 seconds.
2. The **Env map** property overrides default.
3. The system property overrides values passed into the **env map**.

Order of specificity:

Specific timeout properties:

1. Channel timeout: **org.jboss.remoting-jmx.timeout.channel**
2. Connection timeout: **org.jboss.remoting-jmx.timeout.connection**
3. Versioned Connection timeout: **org.jboss.remoting-jmx.timeout.versioned.connection**

If the **org.jboss.remoting-jmx.timeout** property is set and the specific property is not set, the generic value will be used instead of the default.

See http://bugzilla.redhat.com/show_bug.cgi?id=1113242

BZ#1185118 - random NPE in RootResourceIterator

In previous versions of JBoss EAP 6, the logic in the facade that exposes management resources as JMX MBeans made an unnecessary duplicate read of child resources. It was possible for this second read to return a null child if the resource was dynamic and could be removed due to non-

management action (a resource for a temporary JMS queue added or removed by an application, for example).

As a result, calling remote JMX server methods such as **getMBeanCount()** by remote clients could intermittently lead to random `NullPointerException`s with a log message similar to the following.

```
[0m[33m18:38:11,612 WARN [org.jboss.remotingjmx.protocol.v2.ServerCommon] (pool-2-thread-12) Unexpected internal error: java.lang.NullPointerException
at org.jboss.as.jmx.model.RootResourceIterator.dolterate(RootResourceIterator.java:49)
```

In this release of the product, the duplicate read of child resources has been removed, with the value from the initial read (which will never be `null`) used. This ensures the `NullPointerException`s no longer occur.

See http://bugzilla.redhat.com/show_bug.cgi?id=1185118

Remoting

BZ#1126489 - Marshalling fails on objects that require permissions in their readObject

With the Java Security manager enabled, the `java.security.AccessControlException` was thrown when a `java.util.Calendar` object was passed as an argument or response from an EJB method, even with a java security policy that provides the necessary permissions. This issue has been fixed in this release. The exception is no longer thrown and the marshalling and EJB call succeed.

See http://bugzilla.redhat.com/show_bug.cgi?id=1126489

BZ#1161430 - JBoss Marshalling NullPointerException occurs when object being cloned has writeObject

The JBoss Marshalling `NullPointerException` used to occur when an object being cloned has `writeObject`. This issue has been fixed in this release.

See http://bugzilla.redhat.com/show_bug.cgi?id=1161430

BZ#1153281 - Excessive logging when a JMS message is received

The INFO log event was seen every time a JMS message was sent to the server. This issue has been fixed in this release.

See http://bugzilla.redhat.com/show_bug.cgi?id=1153281

Web Console

BZ#1107869 - Web Console errors out and ends the jbossas process completely

When JTS is enabled in the `Transactions` section of the web management console, it is necessary to also set the attribute `transactions` to the value `on` in the JacORB subsystem.

In previous JBoss EAP 6 versions the user was not notified about this dependency by the management console.

The behavior has been corrected in this release by adding a validation check to the console.

See http://bugzilla.redhat.com/show_bug.cgi?id=1107869

BZ#1026823 - Provide a reliable way to clear "ROLE" headers set by "Run as" dialog

In previous releases of JBoss EAP 6, it was found that when a SuperUser acted on behalf of another user (with the **Run As...** link), their role was not reset after the action was taken.

This issue has been addressed and users no longer need to close the browser window and re-access the Web Console for roles to be reset.

See http://bugzilla.redhat.com/show_bug.cgi?id=1026823

BZ#1017655 - Web services configuration validation errors

In previous releases of JBoss EAP 6, invalid values for **WSDL Host**, **WSDL Port** and **WSDL Secure Port** under Profiles > Web > Web Services were not rejected by the web console.

This issue has been resolved in this release which honors the validation rules from the management model. Incorrect values are no longer saved.

See http://bugzilla.redhat.com/show_bug.cgi?id=1017655

BZ#1029851 - management console - even after cancel the process to upload a deployment file, the content is added to data directory

An issue present in previous releases of JBoss EAP 6 that caused the upload of files through the Manage Deployments screen to complete, even if the upload was canceled by the user, has been corrected in this release.

The issue presented because older versions of the product allowed users to cancel a file upload operation after the file copy had occurred but before the deployment entry had been added to **domain.xml**.

In this release of the product, the console workflow has been redesigned to remove the cancel option during the operation, preventing incomplete operations and inconsistent states between saved files and **<deployment>** entries in **domain.xml**.

See http://bugzilla.redhat.com/show_bug.cgi?id=1029851

HornetQ

BZ#1165456 - HornetQ: Disallow SSLv3 [defense-in-depth]

In this release of JBoss EAP 6, SSLv3 has been disabled due to the recently uncovered POODLE vulnerability. More information about POODLE can be found in in Oracle's security topics:

<http://www.oracle.com/technetwork/topics/security/poodlecve-2014-3566-2339408.html>

See http://bugzilla.redhat.com/show_bug.cgi?id=1165456

Server

BZ#1110635 - Deployment overlay feature does not work if a leading / is present on the overlay path

In previous releases of JBoss EAP 6, adding a deployment overlay prefixed with a '/' did not work:

In previous release of JBoss EAP 6, adding a deployment overlay prefixed with a / did not work.

In JBoss EAP 6.4, this has been fixed. The deployment-overlay works with or without a leading '/'

```
deployment-overlay add --name=example-overlay --content=/lib/example.jar=eap6-overlay-example.jar --deployments=example.ear
```

See http://bugzilla.redhat.com/show_bug.cgi?id=1110635

Web Services

BZ#1157482 - EJB3 Web Service returns Invalid User on parallel invocations

The EJB3 Web Service using username token for authentication would fail if it was loaded with parallel invocations. If the EJB3 Web Service was using username token for authentication, it would fail on parallel invocations. This issue has been fixed in this release.

See http://bugzilla.redhat.com/show_bug.cgi?id=1157482

BZ#1115214 - CXF-5679, CXF-5724 - WS-S after upgrade fails with org.apache.ws.security.WSSecurityException: The signature or decryption was invalid

Previous versions of JBoss EAP 6 carried a regression that was introduced in Apache CXF 2.7.10 which failed with the error:

```
org.apache.ws.security.WSSecurityException: The signature or decryption was invalid
```

This issue has been resolved and signature verification of WS-Security SOAP messages is correctly performed.

See http://bugzilla.redhat.com/show_bug.cgi?id=1115214

BZ#1121223 - Ensure EncryptedKey references BinarySecurityToken before it

In previous releases of JBoss EAP 6, CXF placed the **BinarySecurityToken** referenced by the EncryptedKey element after the EncryptedKey element when the WSS timestamp was not included in the SOAP message.

This could cause receivers that expect the **BinarySecurityToken** referenced by the EncryptedKey to be above the EncryptedKey element to fail as they had not processed the **BinarySecurityToken** when attempting to look it up while processing the EncryptedKey element.

This issue has been resolved by moving the BinarySecurityToken higher in the SOAP message. Now **EncryptedKey** elements always reference **BinarySecurityTokens** that have already been found while parsing the SOAP message.

See http://bugzilla.redhat.com/show_bug.cgi?id=1121223

BZ#1155490 - Memory leak in JBoss WS CXF Client's HandlerChainSortInterceptor

If the JAX-WS client was implemented with one JAX-WS handler, on invoking the service port method indefinitely, it resulted in a memory leak. This issue has been fixed in this release.

See http://bugzilla.redhat.com/show_bug.cgi?id=1155490

EE

BZ#1029260 - Cannot use a ear-subdeployments-isolated attribute setting with a jboss-deployment-structure.xml

If you configure a ear-subdeployments-isolated attribute with **jboss-deployment-structure.xml** and put under a **<EAR>/META-INF** directory, the isolation flag was overwritten by the sub-system configuration.

In JBoss EAP 6.4, this issue is fixed. The order of processing has been updated.

See http://bugzilla.redhat.com/show_bug.cgi?id=1029260

JPA

BZ#1131711 - HttpManagementService-threads consumes high cpu on org.jboss.as.jpa.hibernate4.management.QueryName.displayable()

In the previous version of JBoss EAP 6, **HttpManagementService-threads** on **org.jboss.as.jpa.hibernate4.management.QueryName.displayable()** slowed down the performance due to high CPU usage. This was caused due to multiple calls to **String.replace()**. This issue is fixed in the current version of JBoss EAP 6.

See http://bugzilla.redhat.com/show_bug.cgi?id=1131711

BZ#1114726 - JPA entity class enhancement may not work for sub-deployments when other sub-deployments reference the entity classes

In the previous versions of JBoss EAP 6, entity classes in user applications which are expected to be rewritten by the persistence provider during application deployment may not be rewritten. Due to this, when sub-deployments are deployed in parallel and there are references to entity classes in other sub-deployments beyond the deployment that contains the persistence unit, the entity class definition is loaded before it is rewritten by the persistence provider. Thus affecting the performance. This issue is fixed in the current version of JBoss EAP 6.

See http://bugzilla.redhat.com/show_bug.cgi?id=1114726

JMS

BZ#1070106 - Generic JMS adapter does not deploy correctly in domain mode.

In the previous version of JBoss EAP 6, contextual information was not correctly checked during the add operation. As a result, generic JMS adapter was deployed correctly in domain mode. This issue is now fixed in the current version of JBoss EAP 6. Generic JMS adapter can now be deployed in domain mode.

See http://bugzilla.redhat.com/show_bug.cgi?id=1070106

JCA, JMX

BZ#1150821 - JMX Datasource pool & jdbc statistics disappear if you enable validation

In the previous version of JBoss EAP 6, JMX Datasource pool and jdbc statistics may disappear if

validation was enabled. This was due to a reference to part of the resource model was held, which became invalid if the model was modified. This issue is fixed in the current version of JBoss EAP 6. The reference to part of the resource model is not longer held across operations.

Result: DataSource statistics do not disappear.

See http://bugzilla.redhat.com/show_bug.cgi?id=1150821

Logging

BZ#1096053 - SyslogHandler doesn't handle multi-byte characters correctly

In previous versions of JBoss EAP 6, using **org.jboss.logmanager.handlers.SyslogHandler** to log multi-byte characters may result in corrupted output recorded in the log. For example:

```
Mar 8 17:29:09 UNKNOWN_HOSTNAME java[9896]: SyslogHandler: ??????????????
```

This issue has been resolved in this release and now characters are output to the log as expected.

See http://bugzilla.redhat.com/show_bug.cgi?id=1096053

BZ#1031448 - logging-profile works for a servlet, but doesn't for a JSP

In a previous release of JBoss EAP 6, logging profiles worked as expected for a servlet, but did not work for a JSP; all log messages from a JSP went to the system log context.

This issue presented because the class loader that was checked was **org.apache.jasper.servlet.JasperLoader** with a parent class loader of the class loader that was registered for the log context.

This issue has been resolved by adding an option to the log manager to recursively check a class loader's parent for a LogContext.

See http://bugzilla.redhat.com/show_bug.cgi?id=1031448

BZ#1071695 - Infinite recursion when exception stack frame class lookup fails

The JBoss LogManager when configured with the %E formatter, prints out where the jar classes are from. If there is a problem loading the class, JBoss Modules prints a warning. In some circumstances, the exception formatter will trigger infinite recursion between the log manager loading a class and modules printing a warning.

This issue has been fixed in JBoss EAP 6.4. The situation no longer triggers infinite recursion and logging.

See http://bugzilla.redhat.com/show_bug.cgi?id=1071695

Class Loading

BZ#1155823 - Package certificate SecurityErrors triggered by MODULES-192

In previous releases of JBoss EAP 6, the **JarFileResourceLoader** attempted to retrieve the certificates before rather than after reading the class stream, which resulted in the certificates not being loaded.

This would cause a **SecurityError** to occur when signed classes were loaded concurrently by multiple threads.

In this release the **JarFileResourceLoader** retrieves the certificates after reading the class stream and the **SecurityError** no longer occurs.

See http://bugzilla.redhat.com/show_bug.cgi?id=1155823

BZ#1172577 - Include additional sun.jdk dependencies

In previous versions of JBoss EAP 6 some classes in the JDK were not exposed to the application via the sun.jdk that should have been when using JDK **javax.sql.rowset.RowSetProvider** and **java.lang.invoke.MethodHandleProxies** and depending on **sun.jdk** module.

In this release, applications will find classes in these packages visible when depending on the **sun.jdk** module:

- com.sun.rowset
- com.sun.rowset.providers
- sun.invoke

See http://bugzilla.redhat.com/show_bug.cgi?id=1172577

Domain Management, Security

BZ#1150024 - HeaderParser fails to handle delimiters in DigestAuthenticator

Previous versions of JBoss EAP 6 carried a bug in the Digest authenticator which caused it to not correctly handle escaped delimiters within values contained in the authentication header.

Additionally, the add-user utility was not correctly escaping usernames that contained the 'backslash' character (\).

As a result, valid authentication requests were being incorrectly rejected.

In this release, the parsing of the headers has been re-worked within the Digest authentication mechanism and the add-user utility now correctly escapes the 'backslash' character in usernames allowing authentication to occur as expected.

See http://bugzilla.redhat.com/show_bug.cgi?id=1150024

BZ#1153854 - Management Interface: SSL configuration does not allow disabling protocols

In previous versions of JBoss EAP 6, it was found that while it was possible to specify the protocol to request when creating the SSLContext when configuring security realms to supply a SSLContext it was not possible to specify the protocols or cipher suites to be supported on the underlying SSLEngine.

This meant that it was not possible to select a strong set of protocols and cipher suites to be used for SSL connections.

In this release users are now able to specify a set of enabled protocols and cipher suites within the security realm definition. These will be matched against the supported protocols and cipher suites to configure the underlying SSLEngine.

In addition, the enabled protocols will be TLSv1, TLSv1.1 and TLSv1.2 by default if no configuration is specified. SSLv3 and earlier is no longer enabled by default and it is possible for the protocols and cipher suites to be configured further.

See http://bugzilla.redhat.com/show_bug.cgi?id=1153854

Clustering

BZ#993041 - RuntimeException in org.jboss.as.web.session.ClusteredSession.access

Previous versions of JBoss EAP 6, when a distributed web session was being accessed while another node was abruptly leaving the cluster, a lock acquisition could, in some instances, fail. When this occurred it resulted in the following exception:

```
RuntimeException: JBAS018060: Exception acquiring ownership of <session-id>
```

The root cause of this issue was that the lock acquisition did not take into account that a cluster node might leave the cluster at exactly the same time, resulting in the lock acquisition failure.

This issue has been addressed and the exception no longer presents.

See http://bugzilla.redhat.com/show_bug.cgi?id=993041

Security

BZ#1150020 - add-user utility doesn't escape names correctly

JBoss EAP 6's add user utility iterates the value being used as the key in a properties file and escapes all occurrences of special characters.

In previous versions of the product, an error in how the characters were checked caused only the first instance of the 'equals' character (=) to be escaped. If a username contained a subsequent 'equals' character, it was not properly escaped, causing the generated properties file to be unusable.

In this release, the special character handling is now corrected to handle all occurrences of the 'equals' character and usernames containing more than one are correctly written to the properties file.

See http://bugzilla.redhat.com/show_bug.cgi?id=1150020

BZ#979369 - Different behaviors of HttpSession creation with programmatic login()

In the previous versions of JBoss EAP 6, the behavior of HttpSession creation differs when used together with a following programmatic login:

- Without SSO: session is not created while calling the **login()** method. Thus, subsequent requests are unauthenticated
- With non-clustered SSO: session is created while calling the **login()** method, but the first call does not set the authentication status. The subsequent requests are unauthenticated and the user is authenticated after the second call of **login()** method, because the session is already present.

- With clustered SSO: session is created while **login()** method and subsequent requests are authenticated

This issue is fixed in the current version of JBoss EAP 6. The **org.apache.catalina.authenticator.AuthenticatorBase.ALWAYS_USE_SESSION** class has a new option to always create a session.

See http://bugzilla.redhat.com/show_bug.cgi?id=979369

BZ#949737 - Session replication broken by NegotiationAuthenticator valve

Previous versions of JBoss EAP 6 did not include an option to define global authentication mechanisms as there was in JBoss EAP 5. To overcome this limitation the advice for enabling SPNEGO authentication was to manually add the Valve to the **jboss-web.xml** of the affected deployment.

The consequence of this was that the valve was invoked much earlier in the call and preceded the valve responsible for clustering. This meant that the JBoss Negotiation valve created a new HTTP session and the clustering valve did not receive any notifications regarding the life-cycle of the sessions. As the clustering valve was not receiving the notification it needed the session was not clustered and replication was affected.

This release of JBoss EAP 6 now supports defining authentication mechanisms globally. This approach deprecates adding the valve manually to the web application's **jboss-web.xml**.

The SPNEGO authentication valve will now be called after the clustering valve so that the clustering valve will receive the required notifications relating to session life-cycle and will replicate the session correctly.

See http://bugzilla.redhat.com/show_bug.cgi?id=949737

Domain Management, IPv6 support

BZ#1149612 - User is able to use any-ipv6-address interface on IPv4 environment

In previous versions of JBoss EAP 6, the logic for checking for, and rejecting, the combination of an **any-ipv6-address** configuration for an interface and the **java.net.preferIPv4Stack=true** system property was done when installing the network interface service rather than waiting until the service was starting.

As a result, the check could run on host controller processes that did not need the interface service, resulting in spurious failures if the server process that would actually use the interface configuration did not have **java.net.preferIPv4Stack=true** set.

In this release, the consistency check is been deferred until the interface service is started, ensuring it only occurs if the service is actually in use on that process.

Now a server that does not have **java.net.preferIPv4Stack=true** set can use **any-ipv6-address** in the configuration of one of its interfaces even if the domain controller or its own host controller does have **java.net.preferIPv4Stack=true** set.

See http://bugzilla.redhat.com/show_bug.cgi?id=1149612

BZ#1083563 - Mod_cluster draining pending requests could fail since deployments are missing dependency on mod_cluster service (seen on JDK8)

The mod_cluster subsystem was draining and this would fail pending requests. This issue has been fixed in this release.

See http://bugzilla.redhat.com/show_bug.cgi?id=1083563

BZ#1044879 - If "Balancer name includes" uppercase letter in name then mod_cluster will not maintain sticky sessions

In a previous release of JBoss EAP 6, the modcluster module did not maintain sticky sessions if a load balancer's name included upper-case letters.

This issue has been corrected in this release by making the validation of load-balancer names case-insensitive.

See http://bugzilla.redhat.com/show_bug.cgi?id=1044879

RESTEasy**BZ#1090487 - Resteasy secure processing to be turn on by default to apply entity expansion limit**

Two new RESTEasy parameters have been created to improve security in processing **org.w3c.dom.Document** documents. Both are **context-param** parameters and configured in the **web.xml** configuration file of the application.

Name: `resteasy.document.secure.processing.feature` Default value: `true` Description: Impose security constraints in processing `org.w3c.dom.Document` documents and JAXB object representations

Name: `resteasy.document.secure.disableDTDs` Default value: `true` Description: Prohibit DTDs in `org.w3c.dom.Document` documents and JAXB object representations

Note that Xerces 2.9.1.redhat-6 included in EAP 6.4.0 doesn't support Max attributes limit.

See http://bugzilla.redhat.com/show_bug.cgi?id=1090487

BZ#1088956 - MalformedByteSequenceException in Namespace test on Windows

In a previous release of JBoss EAP 6, when encoding was not specified in the body of a client request, RESTEasy returned a response in the encoding of the server, not in the encoding of the original request.

This issue has been resolved in this release by setting UTF-8 as the default encoding if no encoding is requested by the client.

See http://bugzilla.redhat.com/show_bug.cgi?id=1088956

BZ#899666 - RESTEasy: Empty cfg. param javax.ws.rs.Application produces exception

The RESTEasy component shipped with previous versions of JBoss EAP 6 threw an **java.lang.StringIndexOutOfBoundsException: String index out of range: 0** error when the `javax.ws.rs.Application` configuration option in the **WEB-INF/web.xml** file was left empty.

The issue has been corrected in this release with an upgrade to the RESTEasy component.

See http://bugzilla.redhat.com/show_bug.cgi?id=899666

Installer

BZ#977805 - Starting JBoss Administration Console from start menu is not working on Solaris

Due to a gvfs-open issue on Solaris, start menu shortcuts for the Administration Console on Solaris do not work for a JBoss EAP 6 instance that has been installed using the installer.

From JBoss EAP 6.4 and onwards, start menu shortcuts for the Administration Console will not be created for JBoss EAP 6 instances that have been installed using the installer on Solaris.

The Administration Console can be accessed directly in a web browser. If configured with the default ports, the URLs for the Administration Console are below: For standalone mode:

<http://localhost:8080/console> For domain mode: <http://localhost:9990/console>

See http://bugzilla.redhat.com/show_bug.cgi?id=977805

BZ#1032892 - Unable to use tab filling for path starting with a drive letter on windows.

In previous versions of JBoss EAP 6, tab completion for directory paths which start with a drive letter was not working in the console installer of JBoss EAP 6 on Microsoft Windows Server.

When entering a path which starts with a drive letter, for example `C:\`, and pressing the +Tab+ key, nothing was shown. In this situation, it is expected that it will show the contents of that directory.

This issue has been fixed in this release and tab-completion works as expected.

See http://bugzilla.redhat.com/show_bug.cgi?id=1032892

CDI/Weld,Transaction Manager

BZ#1098127 - "Failure while notifying an observer of event" in CDI transactional observer methods with remote EJB call using JTS

In previous versions of JBoss EAP 6, firing a CDI event from a remote EJB client using JTS transactions resulted in a failure in invocation of transactional observers on the server.

This was fixed by correcting the JNDI namespace selection for transaction synchronization callbacks in the Weld integration code.

Transactional observers are now properly invoked in distributed transaction scenarios.

See http://bugzilla.redhat.com/show_bug.cgi?id=1098127

Naming

BZ#1131626 - ERROR: remote lookup Channel end notification received, closing channel Channel ID is seen when looking up a remote queue

In previous versions of JBoss EAP 6, an error could be encountered when performing a lookup on a remote queue from within an EJB, even though the operation executed successfully.

An upgrade to the jboss-remote-naming has resolved this issue.

See http://bugzilla.redhat.com/show_bug.cgi?id=1131626

Domain Management, Test suite

BZ#1078062 - ManagementClientContentTestCase is sometimes fails (different JDK dor master and slave)

In previous release of JBoss EAP 6, map used in the storage mechanism for management-client-content returned different values of the 'hash' attribute for the management-client-content=rollout-plans resource on different processes in a domain.

In JBoss EAP 6.4, this error is fixed by updating the map with consistent ordering used for storing management-client-content. The 'hash' attribute for the management-client-content=rollout-plans resource returns the same value on all processes in a domain.

See http://bugzilla.redhat.com/show_bug.cgi?id=1078062

JCA

BZ#1107120 - Failures when deploying MySQL JDBC driver to EAP 6.x

A previous release of JBoss EAP 6 carried a bug that prevented the MySQL JDBC driver being deployed under certain circumstances.

The deployment would fail, informing the user that the deployment already existed. Any attempt to remove an existing deployment also failed.

This issue has been resolved and the driver deploys as expected.

See http://bugzilla.redhat.com/show_bug.cgi?id=1107120

Web Console - UX

BZ#1016546 - RBAC: Unclear error message when trying to configure Auditor role as Administrator

In previous releases of JBoss EAP 6, if a user attempted to perform an operation which they did not have permission to execute, they would receive the following error message:

You don't have the permissions to access this resource!

This message could be confusing to users as they were attempting to perform an operation, not attempting to access a resource. This error text has been clarified and now reads:

You don't have the permissions to perform this operation!

See http://bugzilla.redhat.com/show_bug.cgi?id=1016546

Security, Web

BZ#952518 - run-as does not work for Servlet init() and destroy() methods

Previous versions of JBoss EAP 6 carried an issue where the **run-as** identity was not being used for **Servlet.init()**, which was contrary to the Java Servlet 2.4 specification.

This was caused by the **RunAsListener** not existing in JBoss EAP 6 as it had previously in JBoss EAP 5.

This issue has been addressed in this release and the product now adheres to the specification in this regard.

See http://bugzilla.redhat.com/show_bug.cgi?id=952518

Scripts and Commands, Security

BZ#901193 - add-user check is not i18n, while prompt is

The add-user utility in JBoss EAP 6 prompts users to confirm the action they are about to take based on the current locale. Where user input was being compared with the different translations, the user input was being converted to lower case whilst the translated value was not.

This meant the add-user utility was not able to identify which option the user had selected due to the difference in case for comparison and was reporting an error to the user to tell them they had not selected a valid value.

In this release both the user's input and the translated values being compared are converted to lower case before comparison. Internationalized responses are now correctly accepted for the confirmation dialogues within the add-user utility.

See http://bugzilla.redhat.com/show_bug.cgi?id=901193

IPv6 support

BZ#900564 - Wrong format of IPv6 addresses in log entries

Logged IPv6 addresses in previous releases of JBoss EAP 6, were not wrapped in square brackets as required. In this release, the handling of IPv6 addresses has been addressed and they are bracketed in logs as expected.

See http://bugzilla.redhat.com/show_bug.cgi?id=900564

Apache Server (httpd) and Connectors

BZ#1188769 - snmpd.conf isn't loaded on Windows except it is in conf

It was found that the **SNMPConf** configuration settings were ignored in previous versions of JBoss EAP 6 installed on Windows systems, causing the agent to start on port 161.

In this release, the snmpd.conf.sample configuration has been added to **etc/httpd/conf** and is honored as expected.

See http://bugzilla.redhat.com/show_bug.cgi?id=1188769

PicketLink

BZ#1170792 - SAML11TokenProvider and SAML20TokenProvider do not take CLOCK_SKEW into account

In previous versions of JBoss EAP 6, the `SAML11TokenProvider` and `SAML20TokenProvider` did not take the `CLOCK_SKEW` attribute into account when validating the tokens.

As a result, if the clock on the validating host and the STS are not synchronized, authentication could fail.

In this release, the `SAML11TokenProvider` and `SAML20TokenProvider` have been modified to honor the `CLOCK_SKEW` during token validation. The clocks on the validating host and STS can be misaligned within the `CLOCK_SKEW` limit and authentication will succeed.

See http://bugzilla.redhat.com/show_bug.cgi?id=1170792

CLI**BZ#1139515 - cli deploy command with unpaired quotation mark causes StringIndexOutOfBoundsException**

When running previous versions of Jboss EAP 6 on Windows, using `jboss-cli.bat` to deploy an application would throw an exception when trying to tab complete an open quote (`"`).

Attempting this action would result in the following error:

```
java.lang.StringIndexOutOfBoundsException: String index out of range: -1
```

In this release, the exception will not occur.

See http://bugzilla.redhat.com/show_bug.cgi?id=1139515

Hibernate**BZ#1132207 - HHH-9389 Foreign key column name for table mapping @ElementCollection uses entity class name instead of specified entity name**

In previous releases of JBoss EAP 6, the name attribute for `@Entity(name="...")` is ignored in computing the prefix for foreign key columns used to join the entity table to tables mapping `@ElementCollection` properties

As a result, the computed foreign key prefix is the entity class name rather than the name supplied in the `@Entity` annotation

In this release, the `@Entity` annotation name property is used to compute the foreign key name prefix. For example, the `@Entity(name="prod")` public class `Product` will result in a computed foreign key (for the `@ElementCollection` table) with the prefix 'prod' rather than 'Product'.

See http://bugzilla.redhat.com/show_bug.cgi?id=1132207

RPM**BZ#1124516 - File snmpd.conf.sample is missing in rpm**

The 'httpd/conf.d/snmpd/snmpd.conf.sample' file was missing from the following versions of the 'mod_snmp' RPMs:

- mod_snmp-2.4.1-7.GA.ep6.el5.i386.rpm
- mod_snmp-2.4.1-7.GA.ep6.el5.x86_64.rpm
- mod_snmp-2.4.1-8.GA.ep6.el6.i386.rpm
- mod_snmp-2.4.1-8.GA.ep6.el6.x86_64.rpm
- mod_snmp-2.4.1-9.GA.ep6.el7.x86_64.rpm

This issue has been resolved in this release of the product.

See http://bugzilla.redhat.com/show_bug.cgi?id=1124516

Table 1. Other Resolved Issues

BZ#1187027 : Deprecation of :enable / :disable operations for datasources
BZ#1168836 : Back port of JBTM-2279 in to JBoss EAP 6.4
BZ#1152477 : Annotation @RolesAllowed doesn't work for generic types in EJBs
BZ#1151526 : SAAJ SOAPConnection doesn't return SoapFault for HTTP 400
BZ#1148728 : Property substitution for username in remote-outbound-connection doesn't work
BZ#1147715 : use JCA XidWrapper only if needed
BZ#1139102 : The node-identifier default value uses invalid dash char '-'
BZ#1138595 : Can't get implementing classname for JSR77 MBean
BZ#1132207 : Foreign key column name for table mapping @ElementCollection uses entity class name instead of specified entity name
BZ#1127999 : JBOSS JSP class loading problem due to case insensitivity
BZ#1127329 : Invalid boolean values are set to 'false' instead of null
BZ#1127318 : JAXB Unmarshaller sets the incorrect element as nil
BZ#1104691 : Hosted page is not served properly (jsp headers not taken into account, served as text)
BZ#1103735 : Classloader leak in JBossCachedAuthenticationManager
BZ#1098074 : AccountIDPMapProvider parameter of AccountChooserValve is ignored
BZ#1085500 : JBoss Negotiation should fallback to form authentication instead of returning 401

BZ#1064217 : SAML Assertion parsing - empty AttributeValue raises exception
BZ#1062104 : JAAS login module's logout() method is not invoked with cache-type="infinispan"
BZ#1062101 : JAAS login module's logout() method is not invoked removing cache-type
BZ#1057835 : JBoss EAP6 is not able to parse ejb-jar.xml of version 2.0
BZ#1054556 : AuditProvider mentions "[Success]" even if username/password is invalid
BZ#1024239 : Strange behaviour of connection-properties=hoge:remove, :disable and :remove of a datasource
BZ#1018026 : Fail to remove the content file from the domain/servers/serverName/data/content folder when undeploying application from a stopped server
BZ#900984 : Setting transaction timeout on UserTransaction leaks to the thread and doesn't get cleared
BZ#1149020 : EJB Compression missing Server Side Handler
BZ#1090406 : Server fails to start when transactions subsystem attribute process-id-uuid is set to false
BZ#1080140 : JTS transaction log record type PREPARED is not changed to HEURISTIC after connection to db is restored
BZ#1080035 : Inconsistency for recovery when db connection fails for Oracle database when running on JTS
BZ#1001909 : Last resources is not committed prior to other resources
BZ#1188643 : PicketLink throws java.lang.RuntimeException: PLFED000092: Null Value: Destination is null
BZ#1188642 : SAML11TokenProvider and SAML20TokenProvider do not take CLOCK_SKEW into account
BZ#1187026 : Deprecation of -ds.xml deployments
BZ#1172419 : EAP6 unable to use ports > 32767
BZ#1171863 : Backport WFLY-4140: In some case :activate on resource-adapter fails if id != archive_name
BZ#1170359 : InitialContext re-wrapping specific NamingExceptions with more generic NamingException
BZ#1163646 : Setting "org.jboss.as.jaxrs.enableSpringIntegration" to "true" causes JaxrsSpringProcessor to throw NullPointerException
BZ#1158498 : Cannot enable NamingStrategyDelegator implementations using entity manager
BZ#1155815 : Array of size 0 causes java.lang.ClassCastException

BZ#1154936 : Add optional fastinfoset dependency in org.apache.cxf
BZ#1148603 : Hibernate AbstractCollectionPersister method processQueuedOps calls a deprecated method which has negative impact on the performance
BZ#1147412 : Datasource recreated upon delete or disable if max connections InUse
BZ#1140278 : Logging application constraints don't allow Deployers to modify logging in web console
BZ#1132188 : Prefill does not work for the last url in connection-url when HA Datasource failover is enabled
BZ#1131691 : JBoss Remoting version (unknown) in AS log
BZ#1131612 : PickletLink IdP Filter eating cookies added to response by other filters
BZ#1131225 : Fallback to FORM authentication when an invalid kerberos token is used
BZ#1130863 : Setting some locales causes missing buttons on console and throws errors
BZ#1128278 : HQL FromElement is not reused in some cases resulting in an additional join
BZ#1125004 : vault.sh / VaultSession fail when using specific keystore password / salt / iteration count combination
BZ#1124086 : Vault should throw exception if different alias name is specified to vault
BZ#1117364 : Setting "Socket Timeout" or "Stop Context Timeout" to 0 in mod_cluster configuration yields "Unknown error"
BZ#1115650 : jboss-remote-naming thread does not shutdown even if calling "javax.naming.InitialContext#close()"
BZ#1192088 : - Reserve static gid/uid for jboss user

[Report a bug](#)

3.2. Known Issues

JSF

BZ#1096905 - InstantiationException on WeldApplicationFactory when switching to JSF 1.2 in EAP 6.2.

JBoss EAP 6 allows users to choose a JSF version for a deployment using descriptors bundled with the deployment.

This, however, currently does not work correctly when the deployment also uses CDI. It is currently not possible to have two different deployments use different versions of JSF if both deployments also use CDI.

When this is attempted, an exception is thrown and the deployment fails with the following error:

```
java.lang.InstantiationException: org.jboss.as.weld.webtier.jsf.WeldApplicationFactory
```

Though using JSF 1.2 with CDI is not officially supported, since JSF 1.2 is an EE5 technology and CDI is an EE6 technology, it is still possible to make JSF 1.2 work with CDI for all deployments using the following workaround:

1. Set 1.2 as the default JSF version in EAP by executing the following command in jboss-cli:
`/subsystem=jsf:write-attribute(name=default-jsf-impl-slot,value=1.2)`
2. Configure JSF 1.2 dependency for the Weld module in both
`/modules/system/layers/base/org/jboss/weld/core/main/module.xml` and
`/modules/system/layers/base/org/jboss/as/weld/main/module.xml` by changing the line
`<module name="javax.faces.api"/>` to **`<module name="javax.faces.api" slot="1.2" />`**
3. Restart the server.

See http://bugzilla.redhat.com/show_bug.cgi?id=1096905

EJB

BZ#1188420 - EJB Asynchronous pass POJO by reference leading to ClassCastException errors in remote invocations

In this release of JBoss EAP 6, an Asynchronous EJB call via the EJB's Remote Interface from a client to an EJB running in the same JVM fails with a ClassCastException.

This is because the request/response are not being marshalled as they should and the client and EJB are not using the same classloader.

This is expected to be resolved in a future release and the request/response will be marshalled as it should since it is a Remote interface call, allowing the client and EJB to use different classloaders and not fail with a ClassCastException.

See http://bugzilla.redhat.com/show_bug.cgi?id=1188420

BZ#1020074 - EJB clients do not attempt to reconnect to any receivers until all receivers have failed

This release of JBoss EAP 6 carries an issue in the EJB component.

EJB clients should attempt to reconnect to receivers when they detect a failed connection. Instead the connection attempt is not made until there are no available receivers.

As a result, this makes it ineffective to use this method in a load balancing configuration. The cause of this problem is still under investigation.

See http://bugzilla.redhat.com/show_bug.cgi?id=1020074

BZ#952746 - Fix transaction recovery failures involving remote EJB resource

In this release of JBoss EAP 6, transaction recovery operations can fail if they involve remote EJB resources that may have crashed.

The issue presents because when a connection breaks down between the server and the client (specifically when the client crashes and is restarted); the server and the client will not automatically communicate with each other.

In these scenarios, the server will have no knowledge that the client has started again, effectively meaning that the EJB tx recovery process will not know which EJB nodes to communicate with.

This issue is under investigation and a solution is being developed.

See http://bugzilla.redhat.com/show_bug.cgi?id=952746

BZ#1036040 - Calling EJB with "REQUIRES_NEW" transaction attribute creates two transactions.

In this release of JBoss EAP 6, an issue in the EJB component causes transaction statistics to show an incorrect number of processed transactions.

This is because the **CMTTxInterceptor** and **LifecycleCMTTxInterceptor** interceptors create two transactions when handling EJB requests. One is a dummy transaction and other is used for managing resources. This results in the one EJB request being counted twice in statistics.

There is no workaround available at this time.

See http://bugzilla.redhat.com/show_bug.cgi?id=1036040

BZ#990102 - Concurrent access timeout -- could not obtain lock within 5000 MILLISECONDS

This release of JBoss EAP 6 carries a bug that could produce a **concurrent access timeout** when an EJB client invoking a method on a stateful bean in a "forwarding" cluster; this bean forwards the call to stateful beans in a "target" cluster, and then back again. Invocations are serial; the client will not invoke a method on a bean until it got a response to previous invocation. When one of the servers in the cluster is shut down, the error occurs.

See http://bugzilla.redhat.com/show_bug.cgi?id=990102

Web

BZ#1076439 - NIO2 Connector is not properly reloaded during reload operation on IBM JDK (IBM JDK 1.7 and 1.8)

If this release of JBoss EAP 6 is started on IBM JDK 1.7 or IBM JDK 1.8 and an attempt is made to reload the server, following error message appears in logs.

```
ERROR [org.apache.coyote.http11.Http11NioProtocol] (MSC service thread 1-6) JBWEB003043:
Error initializing endpoint: java.net.BindException: Address already in use
```

This error is caused by an issue with the IBM JDK which results in the NIO2 connector not reloading properly and the original remaining running. To work around this issue, either use different connector (note that each connector has its own capabilities) or use a different JDK.

This issue is expected to be resolved in a future release of the product.

See http://bugzilla.redhat.com/show_bug.cgi?id=1076439

BZ#918130 - JBossWeb connectors start before application deployments are completed in EAP 6

A timing issue with JBossWeb connectors on startup has been discovered, in which the connectors start and accept requests before applications are fully deployed.

In these circumstances, client connections via either a load balancer or direct to JBoss EAP are returned a **404** message. This issue affects JBoss EAP versions 6.0.1 and greater.

No workaround is available but the issue is under investigation.

See http://bugzilla.redhat.com/show_bug.cgi?id=918130

BZ-1086399 - WebSockets should support CDI as per JSR-356

The JBoss EAP 6.4 WebSocket implementation provides full dependency injection support for server endpoints, however, it does not provide CDI services for client endpoints.

CDI support is limited to that required by the EE6 platform, and as a result, EE7 features such as interceptors on endpoints are not supported.

RPMs

Openjdk packages not providing 'java' in metadata

Several Openjdk packages (1.6.0, 1.7.0 and 1.8.0) do not provide "java" in the RPM metadata, which breaks compatibility with packages that require Java and are available from the JBoss EAP channel. To work around this problem, install another package that provides "java" in the RPM metadata before installing one of the above Openjdk packages.

See:

- https://bugzilla.redhat.com/show_bug.cgi?id=1189530
- https://bugzilla.redhat.com/show_bug.cgi?id=1189692
- https://bugzilla.redhat.com/show_bug.cgi?id=1189853
- https://bugzilla.redhat.com/show_bug.cgi?id=1189529

Web Console

BZ#1180206 - Unable to unset wsdl-port and wsdl-secure-port if wrong value is entered first

It is not possible to change values of WSDL attributes port and secure port back to **undefined** via console if they already have any value set. Input fields for these attributes currently allows only numeric values and don't handle empty string as **undefined**.

Workaround: To unset these attributes, use one of the following command in the management CLI:

```
/subsystem=webservices:undefine-attribute(name=wsdl-port)
```

```
/subsystem=webservices:undefine-attribute(name=wsdl-secure-port)
```

See http://bugzilla.redhat.com/show_bug.cgi?id=1180206

BZ#1014048 - RBAC: Log in right after log out wont clear UI properly in domain mode

In some cases, when logging out of the Web Console, the console is partially rendered before logging in as another user. This leads to "mixed" content where parts of the screen are rendered as if the old user was logged in and parts of the screen as the new user was logged in.

This issue is not a security risk and no sensitive data will be revealed.

As a workaround, close the browser window (not just the active tab) and log in as the new user.

See http://bugzilla.redhat.com/show_bug.cgi?id=1014048

BZ#1027586 - RBAC: Web console is too coarse-grained with application resources

In this release of JBoss EAP 6, when a resource is defined as an application resource, the console may not reflect that definition. This is because the console often groups several resources under one view. The controls in the views are available if all related resources are writable. If any of these resources is configured as an application resource, however, the related controls will still be disabled.

The current workaround is to, if possible, configure all resource types associated with a subsystem as application resources.

See http://bugzilla.redhat.com/show_bug.cgi?id=1027586

JMS

BZ#1033008 - Generic JMS RA is not consistent with the EE spec - it does *not* ignore the parameters when session is created in the transaction context

This release of JBoss EAP 6 carries the following issue in the JMS component.

When a session is created in a transaction's context and parameters are passed to the generic JMS resource adapter, a **NullPointerException** (NPE) occurs.

The issue occurs because the processing of parameters is attempted, when the Java EE specification states that they are **not** to be processed.

The root cause of the issue is under investigation, but until then a workaround is to set the session to be transacted, as per the following example. With this workaround, the NPE will not occur.

```
connection.createSession(true, Session.SESSION_TRANSACTED);
```

See http://bugzilla.redhat.com/show_bug.cgi?id=1033008

Security

BZ#1103684 - Unable to share Identity Security Domain across datasources

This release of JBoss EAP 6 carries a bug that presents the error **javax.resource.ResourceException: No matching credentials in Subject!** when multiple datasources are defined backed by the same security domain.

This issue is being investigated and is expected to be resolved in a future release of the product.

See http://bugzilla.redhat.com/show_bug.cgi?id=1103684

BZ#1052644 - LdapExtLoginModule cannot find custom ldap socket factory

In this release of JBoss EAP 6 the **LdapExtLoginModule** does not set the TCCL to the classloader of a (configurable) JBoss module. The JBoss module would contain a custom socket factory.

As a consequence the **LdapExtLoginModule** cannot use custom socket factories for creating connections to the ldap server. A **ClassNotFoundException** will be thrown when attempting to use a custom socket factory with the **LdapExtLoginModule**.

This issue will be resolved in a future release of the product.

See http://bugzilla.redhat.com/show_bug.cgi?id=1052644

BZ#1145490 - FIPS 140-2 compliant mode doesn't work in JDK-8

This release of JBoss EAP 6 carries the following JDK8 issue:

When using an RSA client key exchange in SSL/TLS protocols, the SunJSSE provider cannot work in FIPS 140 compliant mode. This issue does not impact the default mode of SunJSSE.

More information can be found at: <http://www.oracle.com/technetwork/java/javase/8-known-issues-2157115.html>

Domain Management**BZ#1015524 - RBAC: unable to deploy the same deployment which was already deployed by user from different server-group scope**

When role-based access controls are enabled, management users with server-group scoped roles might have new deployments fail with the following message:

```
"JBAS014807: Management resource '[("deployment" => "example.war")]' not found"
```

This occurs because a deployment with the same name already exists in the domain. This is correct behaviour. However because the management user is scoped to a server group, they will be unable to see if such a deployment already exists in another server group. This makes it difficult to avoid this confusing error.

To workaround this limitation, Red Hat recommends that either non-scoped roles are assigned to the users responsible for adding deployments to a domain, or that a list of deployment names is maintained so that management users are aware of them.

See http://bugzilla.redhat.com/show_bug.cgi?id=1015524

BZ#1021607 - RBAC: The two kinds of non-addressability

Some resources are non-addressable to server-group and host scoped roles in order to provide a simplified view of the management model to improve usability. This is distinct from resources that are non-addressable to protect sensitive data.

For server-group scoped roles this means that resources in the **profile, socket binding group, deployment, deployment override, server group, server config** and **server** portions of the management model will not be visible if they are not related to the server-groups specified for the role.

For host-scoped roles this means that resources in the **/host=*** portion of the management model will not be visible if they are not related to the server groups specified for the role.

However in some cases this simplified view can hide information that while it is outside the scope of what the user is managing, it can provide guidance to the user as to a course of action. An example of this is [BZ# 1015524](#).

In a future release, some of these non-addressable resources might be changed to be addressable but non-readable. This will not affect the security of the server because they were not non-addressable for security reasons. Red Hat recommends that you do not rely on the non-addressability of resources to hide information unless the non-addressability is defined in a sensitivity constraint.

See http://bugzilla.redhat.com/show_bug.cgi?id=1021607

Clustering

BZ#917635 - Failed to load session: NullPointerException

A Known Issue in this release can cause a `NullPointerException` with a 'Failed to load session' message to be encountered after application deployment in some circumstances.

This issue is expected to be resolved in a later release of the product.

See http://bugzilla.redhat.com/show_bug.cgi?id=917635

BZ#959951 - CacheException: java.lang.RuntimeException: Failure to marshal argument(s) at server shutdown

On shutdown of a server the following message may be logged:

```
CacheException: java.lang.RuntimeException: Failure to marshal argument(s) at server shutdown
```

This message occurs because Infinispan does not yet support clean shutdown and can be safely ignored. This issue is being investigated but no known workaround is available.

See http://bugzilla.redhat.com/show_bug.cgi?id=959951

BZ#901162 - TimeoutException: Unable to acquire lock

A Known Issue exists in this release of JBoss EAP 6 that produces a **TimeoutException: Unable to acquire lock** under some circumstances.

This issue is expected to be resolved in a later release.

See http://bugzilla.redhat.com/show_bug.cgi?id=901162

BZ#900483 - Stale session data received when using DIST SYNC on jvm kill

During testing, some cases showed that stale session data was received when a node shut down and **DIST SYNC** or **DIST ASYNC** cache mode was used. This issue is still under investigation.

See http://bugzilla.redhat.com/show_bug.cgi?id=900483

BZ#900946 - IllegalStateException: Cache is in 'TERMINATED'/'STOPPING' state.

This release of JBoss EAP 6 carries a bug that may cause an **IllegalStateException** to appear after an application is undeployed on one node within 5 seconds of having been deployed on another node within the cluster.

This issue is under investigation and is expected to be resolved in a future release.

See http://bugzilla.redhat.com/show_bug.cgi?id=900946

BZ#900378 - CDI beans with SET replication trigger are not replicating

Due to a bug in the Weld component, the **setAttribute** method is not called correctly. This causes CDI beans with the **SET** replication trigger to fail to be replicated.

The workaround is to use the **SET_AND_NON_PRIMITIVE_GET** trigger for these beans. This will be fixed in a future release.

See http://bugzilla.redhat.com/show_bug.cgi?id=900378

BZ#922699 - IllegalStateException: AtomicMap stored under key X has been concurrently removed!

An **IllegalStateException** can be thrown in rare cases when routine processing expiration and passivation accesses a session that is concurrently removed. This causes an exception to be thrown and logged.

The exception can be ignored. However, disabling session passivation will ensure the problem is avoided.

See http://bugzilla.redhat.com/show_bug.cgi?id=922699

Transaction Manager**BZ#1039081 - Please remove "path" and "relative-to" attributes from CLI.**

Due to functionality not included in JBoss EAP 6, the **path** and **relative-to** attributes have no use in the transactions subsystem of the CLI. These attributes have been deprecated in this release of the product and will be removed entirely in a future release.

See http://bugzilla.redhat.com/show_bug.cgi?id=1039081

JDR**BZ#917683 - Jdr utility generates wrong archive entry name running on Windows**

A bug has been found in the JDR utility when used in Windows environments. It has been reported that the utility will append the last character of the originating `$JBOSS_HOME` directory to the `JBOSS_HOME` directory created inside the archive.

For example, for an originating `JBOSS_HOME` directory named 'jboss-eap-6.2' the JDR utility would produce an archive directory called 'JBOSS_HOME2'.

The cause of this bug is still being investigated and no workaround to prevent it exists.

See http://bugzilla.redhat.com/show_bug.cgi?id=917683

XML Frameworks

BZ#1065128 - Performance issue with Xalan transformer and very large text nodes

A bug has been found in this release of JBoss EAP 6 that causes performance issues when attempting to convert large text nodes using the Xalan Transformer. When using the Transformer to convert a StreamSource to DOMResult, the performance of the Transformer decreases as the size of the character data increases. This is a Known Issue and will be corrected in a later release of the product.

See http://bugzilla.redhat.com/show_bug.cgi?id=1065128

CLI

BZ#1054874 - jboss-cli.sh cygwin support

This release of JBoss EAP 6 contains a bug that may create problems using the product in a Cygwin environment.

Differences in the POSIX and Microsoft Windows pathing implementations may cause the path variables in the jboss-cli.sh shell script to not function as expected.

This issue is expected to be resolved in a future release of the product.

See http://bugzilla.redhat.com/show_bug.cgi?id=1054874

Web Services

BZ#1079049 - Problem using @SchemaValidation in combination with wsrn 1.1

If a client sends a WS-RM 1.1 message that references **CreateSequence** to an endpoint that utilizes WS-RM along with schema validation, the application throws the following error:

```
Unmarshalling Error: cvc-elt.1: Cannot find the declaration of element 'CreateSequence'.
```

CreateSequence is not found in the **fGrammarPool** in **org.apache.xerces.impl.xml.XMLSchemaLoader** because CXF and JBossWS do not yet fully support WS-RM 1.1.

See http://bugzilla.redhat.com/show_bug.cgi?id=1079049

BZ#1074368 - Schema element generated from exception class doesn't honor @XmlElement annotation

A bug has been found in this release of JBoss EAP 6 wherein Schema generated from exception classes do not honor the @XmlElement annotation. This issue will be resolved in a future release of the product.

See http://bugzilla.redhat.com/show_bug.cgi?id=1074368

mod_cluster

BZ#900047 - SystemMemoryUsageLoadMetric is not correct on Linux/Unix

The **SystemMemoryUsageLoadMetric** does not show useful information on Linux or UNIX operating systems. For these systems, **HeapMemoryUsageLoadMetric** provides more useful information. The solution to this problem will be to change the algorithm of **SystemMemoryUsageLoadMetric** to subtract the **buffers/cache** value from the **used** number.

The best method for doing this is under investigation.

See http://bugzilla.redhat.com/show_bug.cgi?id=900047

BZ#1085427 - StickySessions don't work for ProxyPass from unenabled context

This release of JBoss EAP 6 carries a bug that prevents StickySessions from working for ProxyPass from unenabled context. This issue is expected to be resolved in a future release.

See http://bugzilla.redhat.com/show_bug.cgi?id=1085427

BZ#901170 - Apache with mod_cluster refuses to start (manager.node)

Customers have reported that in Windows Server 2008 environments with User Account Control (UAC) enabled, files and directories required for **mod_cluster** are not created.

As a result, the Apache httpd process fails to start in JBoss EAP 6 installations that utilize **mod_cluster**. The following error is produced:

```
[Tue Nov 06 07:55:18 2012] [emerg] create_mem_node C:/tmp/jboss-ews-2.0/var/cache/mod_cluster/manager.node failed: Access is denied.  
Configuration Failed
```

While disabling UAC prevents this issue from occurring, it has been concluded that this issue is caused by a Windows administration error.

If the correct path is set in **MemManagerFile**, the issue only presents when user/service permissions are misconfigured.

This scenario could most likely occur in Domain Controlled environments where the Domain Administrator must grant the proper Domain permissions so that UAC does not consider **MemManagerFile** as a threat.

No further action will be taken on this issue.

See http://bugzilla.redhat.com/show_bug.cgi?id=901170

RESEasy

BZ#899664 - RESEasy: Boolean configuration parameters don't reject non-sense content

This release of JBoss EAP 6 carries a bug that allows invalid Boolean configuration parameters to be set. This behavior is unintended as invalid parameters should be rejected and the application should not be deployed.

This issue is expected to be resolved in future release of the product.

See http://bugzilla.redhat.com/show_bug.cgi?id=899664

JCA

BZ#1184610 - Race condition registering resource adapters at startup

This release of JBoss EAP contains a race condition when registering resource adapters where multiple threads may attempt to create the resource adapters subsystem.

Where multiple resource adapters have been defined, two or more threads may try to create the resource adapters subsystem in memory (e.g. during server startup). Only one thread can successfully complete this task. Other threads will fail, leaving one or more resource adapters in a non-deployed state.

This issue is expected to be resolved in a future release of the product.

See http://bugzilla.redhat.com/show_bug.cgi?id=1184610

Table 2. Other Known Issues

BZ#1018705 : MODCLUSTER000022: Failed to drain n remaining pending requests
BZ#1097211 : JBossWS testsuite failures on Solaris11 and JDK7 with BC and unlimited cryptography
BZ#1110515 : mod_cluster Connected count shows improper inflation
BZ#1125934 : access-log does not log 404 for non-existent context when enable-welcome-root is set to false in EAP
BZ#1142804 : PicketLink SAML based SSO using REDIRECT binding: redirect to SP is sent with non-zero content-length header without a content
BZ#1146238 : Can't login to admin console with JAAS secured management interfaces with --admin-only
BZ#1147352 : Overlay does not work for subunits in exploded deployments
BZ#1157766 : VirtualHosts share pointer to mod_proxy configuration, results in: CreateBalancers behave the same with option 0 or 2
BZ#1166881 : SPFilter needs to updated to match functionality of SP valve
BZ#1168441 : CovalentSNMP/2.3.0, mod_snmp Apache HTTP Server doesn't start with the sample file on Windows
BZ#1184956 : Session draining difference between EAP 6.3 and EAP 6.4
BZ#1185060 : Infinispan JAAS cache implementation does not call logout on eviction/removal
BZ#1193459 : error-info\n messages with CovalentSNMP/2.3.0, mod_snmp Apache HTTP Server

[BZ#901164](#): Servlet @Inject-ing SFSB timeouts/receives stale data/sessions are lost after failover

[BZ#1181036](#): Change in AdvertiseSecurityKey on the httpd side shouldn't be ignored by running workers

[BZ#1168921](#): Kerberos authentication for Management CLI does not work with IBM JDK

[BZ#1187092](#): Kerberos authentication for remoting EJB does not work with IBM JDK

[Report a bug](#)

4. UNSUPPORTED AND DEPRECATED FEATURES

4.1. Unsupported Features

The following features are not currently supported in JBoss EAP 6.4.

mod_jk and mod_cluster with Apache on RHEL 7

Apache HTTP Server version 2.4.6, which ships with Red Hat Enterprise Linux 7, is not supported for use with **mod_cluster** and **mod_jk** delivered as a part of the JBoss EAP 6 installation (either zip or RPM).

In order to use **mod_cluster** and/or **mod_jk**, install the Apache HTTP Server (version 2.2.26) included as part of the JBoss EAP zip or RPM distribution.

mod_rt and mod_snmp

The **mod_rt** (**mod_rt.so**) and **mod_snmp** (**snmpmonagt.so**) modules that are shipped with JBoss EAP 6's Apache HTTP Server distribution are not supported.

More information about support for these modules can be found in the Enterprise Web Server 2.1 documentation.

fail_on_status parameter unusable with HP-UX v11.3 hpws httpd B.2.2.15.15.

The **fail_on_status** ProxyPass parameter is not provided in the **HP-UX v11.3 hpws httpd B.2.2.15.15 Apache HTTP Server** published by HP. Therefore this parameter cannot be used with **mod_cluster** implementations using this HTTP server.

Red Hat offers a patched version of httpd 2.2.15 in Red Hat Enterprise Linux 6 that supports this parameter. Read more about the patch at:

<http://pkgs.devel.redhat.com/cgiit/rpms/httpd/tree/httpd-2.2.15-proxy-failonstatus.patch?h=rhel-6.7&id=295e30e7413300d714cce1d983ecf25ec08ae17c>

STOMP Protocol with HornetQ

HornetQ has community level support for the STOMP protocol. That protocol has not received testing from Red Hat and is not supported by JBoss EAP.

REST Protocol with HornetQ

HornetQ has community level support for the REST protocol. That protocol has not received testing from Red Hat and is not supported by JBoss EAP.

IPv6 Limitations of JDK 6

The following IPv6 limitations are caused by JDK 6, and are not defects in JBoss EAP 6.

- On Microsoft Windows Server, JDK 6 has only a partial IPv6 implementation. This implementation is not sufficient to run JBoss EAP 6. Full IPv6 support on Microsoft Windows Server requires JDK 7.
- On Red Hat Enterprise Linux, a bug in Oracle JDK 6 means that any address specified on a client (the network point establishing the connection) which contains a zone-id will fail. To use a zone-id, either upgrade to JDK 7, or use IcedTea/OpenJDK 6, which is available for Red Hat Enterprise Linux, and does not exhibit this bug. For more information about the bug, refer to http://bugs.sun.com/bugdatabase/view_bug.do?bug_id=6800096 and <https://issues.jboss.org/browse/JBPAPP-8833>.

JPA 2.0 Context Propagation Outside of a JTA Transaction

The propagation of Extended Persistence Contexts (XPC) was not taking into account the existence of a transaction, with the XPC always being propagated. That behaviour is not in accordance with the JPA 2.0 specification. The handling of XPC has been modified so that when there is no transaction active the XPC's propagation is ignored and the bean being invoked has its own Persistence Context instead of the XPC.

If your application expects extended persistence contexts to be propagated outside of JTA transactions, you need to consider if your application needs to be modified. Refer to the JBoss EAP 6 Migration Guide for instructions on updating your application.

JBoss Enterprise Application Platform 5 provided a system property (**JBPAPP-923.alwaysPropagate**) to enable this behaviour. This system property is not available in JBoss EAP 6.

For more information about this decision, refer to <https://issues.jboss.org/browse/AS7-1663>.

STS Client Pooling

The PicketLink Federation Subsystem provides a pool of STS clients on the server. This removes STS Client creation as a bottleneck.

Client pooling can be utilized from login modules that need an STS client to obtain SAML tickets.

Login Modules that can utilize STS client pooling:

- `org.picketlink.identity.federation.core.wstrust.auth.STSIssuingLoginModule`
- `org.picketlink.identity.federation.core.wstrust.auth.STSValidatingLoginModule`
- `org.picketlink.trust.jbossws.jaas.JBWSTokenIssuingLoginModule`

The default number of clients in the pool for each login module is configured via the **initialNumberOfClients** login module option.

The `STSClientPoolFactory` class **`org.picketlink.identity.federation.bindings.stspool.STSClientPoolFactory`** provides client pool functionality to applications.

Using STSClientPoolFactory

STS clients are inserted into sub pools using their [configuration](#) as a key. Obtain STSClientPool instance and then initialize a sub pool based on configuration, optionally with initial number of STS clients or rely on default number.

```
final STSClientPool pool = STSClientPoolFactory.getPoolInstance();
pool.createPool(20, stsClientConfig);
final STSClient client = pool.getClient(stsClientConfig);
```

When you are done with a client, you can return it to the pool like so:

```
pool.returnClient();
```

To check if a subpool already exists for a given configuration:

```
if (! pool.configExists(stsClientConfig) {
    pool.createPool(stsClientConfig);
}
```

When the PicketLink Federation subsystem is enabled, all client pools created for a deployment are destroyed automatically during the undeploy process. To manually destroy a pool:

```
pool.destroyPool(stsClientConfig);
```

Tanuki Service Wrapper

The Tanuki Service Wrapper is not supported with JBoss EAP 6. More information can be found at <https://issues.jboss.org/browse/JBPAPP-8651>.

XA Recovery on Microsoft SQL Server 2008

XA recovery does not work with Microsoft SQL Server 2008 R1. This feature does work with Microsoft SQL Server 2008 R2 SP2. For more information refer to the following URLs:

- <https://issues.jboss.org/browse/JBPAPP-8983>
- https://bugzilla.redhat.com/show_bug.cgi?id=901254
- <https://community.jboss.org/thread/145358>

XA Recovery on MySQL

The MySQL JDBC driver does not implement XA recovery properly and returns incorrect error codes for exceptions when the connection to the database is halted.

For more information refer <https://issues.jboss.org/browse/JBPAPP-2576> and <http://bugs.mysql.com/bug.php?id=72890>

JBoss OSGi

JBoss OSGi, an implementation of the OSGi specification, was demoted from Technology Preview to Unsupported. For additional information refer to <https://access.redhat.com/site/solutions/362814>.

Quickstarts

Various quickstarts (**helloworld-osgi**, **wicket-war** and **wicket-ear**) that were available in JBoss EAP 6.2, were removed from the product in the 6.3 release and remain unavailable in 6.4.

PicketLink

The PicketLink IDM (Identity Management) is not supported in JBoss EAP 6.

Infinispan API

Direct use of the Infinispan API is not supported in JBoss EAP 6. Infinispan is used as an implementation detail for various clustering technologies internal to JBoss EAP 6. Direct use of the Infinispan API requires a subscription to Red Hat JBoss Data Grid and the installation of the JBoss Data Grid packages. The Red Hat JBoss Data Grid download is available at <https://access.redhat.com/downloads>.

[Report a bug](#)

4.2. Deprecated Features

Some features have been deprecated with the release of JBoss EAP 6.4. This means that no enhancements will be made to these features, and they may be removed in the future, usually the next major release.

Red Hat will continue providing full support and bug fixes under our standard support terms and conditions. For more information about the Red Hat support policy, see the article *Red Hat JBoss Middleware and Red Hat JBoss Operations Network Product Update and Support Policy* at https://access.redhat.com/support/policy/updates/jboss_notes/.

For details of which features have been deprecated, see the article *JBoss Enterprise Application Platform Component Details* at <https://access.redhat.com/articles/112673>.

[Report a bug](#)

5. FREQUENTLY ASKED QUESTIONS

Q: What has changed in this release?

A: JBoss EAP 6.4.0 includes many improvements and fixes. For specific details see *Changes in this Release*.

Q: Where is the complete suite of documentation?

A: The full JBoss EAP 6.4.0 documentation suite can be found at https://access.redhat.com/documentation/en-us/red_hat_jboss_enterprise_application_platform/?version=6.4.

Q: Where are the upgrade instructions ?

A: The upgrade instructions can be found in the *Installation Guide*.

Q: What components make up JBoss EAP? And what versions of those components are in this release?

A: The JBoss EAP 6 component matrix is available at the following location: <https://access.redhat.com/knowledge/articles/112673>.

Q: What operating systems, Java Virtual Machines, and database servers is this product supported on?

A: See <https://access.redhat.com/site/articles/111663> for a complete list of the operating system, Java Virtual Machine, database server and JDBC driver combinations that have been tested and verified with JBoss EAP 6.4.0.

Q: Is the included H2 database supported in production?

A: No. The H2 database is included only for evaluation, testing and demonstration purposes. It is not a supported configuration for a production environment. See <https://access.redhat.com/site/solutions/148633> for additional information.

Q: What industry standards does JBoss EAP 6.4.0 support?

A: See <https://access.redhat.com/site/articles/113373> for a complete list of supported specifications and standards.

Q: What issues might I encounter when migrating to this release?

A: See *Changes in this Release* to learn about the differences between this release of JBoss EAP and previous releases that may cause difficulties when migrating your applications to this version.

Q: What components are included in this release and what version are they?

A: See <https://access.redhat.com/site/articles/112673> for a complete list of the included components.

Q: What Tech Previews are included in this release?

A: JBoss EAP 6.4.0 includes a number of tech preview features. These features are not supported, may not be functionally complete, and are not intended for production use. They are included to provide customers with early access to upcoming product innovations, enabling them to test functionality and provide feedback during the development process.

See *Features Provided as Tech Preview Only* for a complete list of Technology Preview features in this release.

Q: Where can I find out more details about my support contract ?

A: Details of support policies are located at the following URLs:

Support Processes

https://access.redhat.com/site/support/policy/support_process

Production Support Scope of Coverage

<https://access.redhat.com/site/support/offerings/production/soc>

Production Support Service Level Agreement

<https://access.redhat.com/site/support/offerings/production/sla>

Developer Support Scope of Coverage

<https://access.redhat.com/site/support/offerings/developer/soc/>

Developer Support Service Level Agreement

<https://access.redhat.com/site/support/offerings/developer/sla/>

Product Update and Support Policy by Product

https://access.redhat.com/site/support/policy/updates/jboss_notes/

JBoss End User License Agreement

http://www.redhat.com/licenses/jboss_eula.html

Q: I found a mistake in this document. How do I report it?

A: To provide feedback on this document, file a bug at <https://bugzilla.redhat.com> and specify the product **JBoss Enterprise Application Platform 6**, version **6.4.0**, and component **Documentation**.

The following URL fills in the product, version, and component fields automatically:

https://bugzilla.redhat.com/enter_bug.cgi?

[component=Documentation&product=JBoss%20Enterprise%20Application%20Platform%206&versi](https://bugzilla.redhat.com/enter_bug.cgi?component=Documentation&product=JBoss%20Enterprise%20Application%20Platform%206&versi)

[Report a bug](#)

A. REVISION HISTORY

Revision 6.4.0-23

Thursday November 16 2017

Red Hat Customer Content Services

Red Hat JBoss Enterprise Application Platform 6.4 Continuous Release