



Red Hat JBoss Data Grid 7.0

7.0.1 Release Notes

Known and resolved issues for Red Hat JBoss Data Grid 7.0.1

Red Hat JBoss Data Grid 7.0 7.0.1 Release Notes

Known and resolved issues for Red Hat JBoss Data Grid 7.0.1

John Brier
Red Hat Customer Content Services
jbrier@redhat.com

Legal Notice

Copyright © 2017 Red Hat, Inc.

This document is licensed by Red Hat under the [Creative Commons Attribution-ShareAlike 3.0 Unported License](#). If you distribute this document, or a modified version of it, you must provide attribution to Red Hat, Inc. and provide a link to the original. If the document is modified, all Red Hat trademarks must be removed.

Red Hat, as the licensor of this document, waives the right to enforce, and agrees not to assert, Section 4d of CC-BY-SA to the fullest extent permitted by applicable law.

Red Hat, Red Hat Enterprise Linux, the Shadowman logo, JBoss, OpenShift, Fedora, the Infinity logo, and RHCE are trademarks of Red Hat, Inc., registered in the United States and other countries.

Linux ® is the registered trademark of Linus Torvalds in the United States and other countries.

Java ® is a registered trademark of Oracle and/or its affiliates.

XFS ® is a trademark of Silicon Graphics International Corp. or its subsidiaries in the United States and/or other countries.

MySQL ® is a registered trademark of MySQL AB in the United States, the European Union and other countries.

Node.js ® is an official trademark of Joyent. Red Hat Software Collections is not formally related to or endorsed by the official Joyent Node.js open source or commercial project.

The OpenStack ® Word Mark and OpenStack logo are either registered trademarks/service marks or trademarks/service marks of the OpenStack Foundation, in the United States and other countries and are used with the OpenStack Foundation's permission. We are not affiliated with, endorsed or sponsored by the OpenStack Foundation, or the OpenStack community.

All other trademarks are the property of their respective owners.

Abstract

The Red Hat JBoss Data Grid 7.0.1 Release Notes list and provide descriptions for a series of bugzilla bugs. The bugs highlight issues that are known problems and resolved issues for the release.

Table of Contents

CHAPTER 1. INTRODUCTION TO RED HAT JBOSS DATA GRID 7.0.1	3
1.1. ABOUT RED HAT JBOSS DATA GRID	3
1.2. OVERVIEW	3
CHAPTER 2. PATCHING EXISTING SERVER INSTANCES	4
CHAPTER 3. SUPPORTED CONFIGURATIONS	5
CHAPTER 4. COMPONENT VERSIONS	6
CHAPTER 5. KNOWN AND RESOLVED ISSUES	7
5.1. KNOWN ISSUES	7
5.2. RESOLVED ISSUES	9
APPENDIX A. REVISION HISTORY	15

CHAPTER 1. INTRODUCTION TO RED HAT JBOSS DATA GRID

7.0.1

Welcome to Red Hat JBoss Data Grid 7.0.1. As you become familiar with the newest version of JBoss Data Grid these Release Notes provide you with information about new features, as well as known and resolved issues. Use this document in conjunction with the entire JBoss Data Grid documentation suite, available at the Red Hat Customer Service Portal's [JBoss Data Grid documentation page](#).

[Report a bug](#)

1.1. ABOUT RED HAT JBOSS DATA GRID

Red Hat's JBoss Data Grid is an open source, distributed, in-memory key/value data store built from the Infinispan open source software project. Whether deployed in client/server mode or embedded in a Java Virtual Machine, it is built to be elastic, high performance, highly available and to scale linearly.

JBoss Data Grid is accessible for both Java and Non-Java clients. Using JBoss Data Grid, data is distributed and replicated across a manageable cluster of nodes, optionally written to disk and easily accessible using the REST, Memcached and Hot Rod protocols, or directly in process through a traditional Java Map API.

[Report a bug](#)

1.2. OVERVIEW

This document contains information about the known issues of Red Hat JBoss Data Grid version 7.0.1. Customers are requested to read this documentation prior to installing this version.

[Report a bug](#)

CHAPTER 2. PATCHING EXISTING SERVER INSTANCES

Since new micro releases of JBoss Data Grid server do not completely replace the existing installation, they are released as a patch for your convenience. The base version to be patched is the x.y.0 release, and the patches x.y.# (micro release or cumulative patch) may be applied to that instance. The patch can be rolled back (including the configuration) if there is any issue during the patching process, and any subsequent patches may be applied in the same way.

This process is similar to the procedure used to patch JBoss Enterprise Application Platform (EAP).



NOTE

It is strongly recommended to back up your existing installation, including all configuration files, before applying the patch.

Procedure 2.1. Applying the JBoss Data Grid 7.0.1 Patch

1. Download the patch from the Red Hat Customer Portal at <https://access.redhat.com/downloads/>
2. Connect to the running instance to be patched using the JBoss CLI:

```
$JDG_HOME/bin/cli.sh --connect=127.0.0.1:9999
```

3. Ensure there are no active connections to the server, and then apply the patch:

```
patch apply /path/to/jboss-datagrid-7.0.1-server-patch.zip
```

4. Restart the server:

```
shutdown --restart=true
```

All other files, such as EAP modules, clients, and the standalone library mode version of JBoss Data Grid, are provided as full archives. Due to this there is no possibility to patch these files.

[Report a bug](#)

CHAPTER 3. SUPPORTED CONFIGURATIONS

Supported hardware and software configurations for JDG 6.6.2 are available on the Customer Portal at <https://access.redhat.com/articles/115883>.

[Report a bug](#)

CHAPTER 4. COMPONENT VERSIONS

The full list of component versions used in Red Hat JBoss Data Grid is available at the Customer Portal at <https://access.redhat.com/site/articles/488833>.

[Report a bug](#)

CHAPTER 5. KNOWN AND RESOLVED ISSUES

5.1. KNOWN ISSUES

JDG-435 - JDBC store configuration is not copied when creating new template from basic configuration

When creating a new template the JDBC cache store configuration is not copied over, and must instead be manually entered.

This is a known issue in JBoss Data Grid 7.0.1, and no workaround exists at this time.

JDG-436 - JMX operation `ClusterCacheStats.resetStatistics()` not working

When executing the JMX operation `ClusterCacheStats.resetStatistics()` none of the cluster statistics are reset.

This is a known issue in JBoss Data Grid 7.0.1, and to workaround this issue execute `Statistics.resetStatistics()` on each server individually.

JDG-474 - CLI - container and cache commands don't work in domain mode

When executing `container` or `cache` based commands through the CLI in domain mode the following message is displayed:

```
Container does not exists
```

This is a known issue in JBoss Data Grid 7.0.1, and no workaround exists at this time.

JDG-477 - The C# client does not have asynchronous versions of cache operations

Unlike the C++ and Java Hot Rod clients, the C# client does not include asynchronous versions of cache operations at this time.

This is a known issue in JBoss Data Grid 7.0.1, and a workaround exists by using the Task API to wrap the cache operation. For instance, the following example demonstrates performing an asynchronous `Put(key, value)`:

```
await Task.Run(() => cache.Put(k,v))
```

JDG-244 - Spark connector fails with CCE when compatibility mode is enabled

When attempting to insert values into a cache using the Spark connector while compatibility mode is enabled the request will fail with a `ClassCastException`.

This is a known issue in JBoss Data Grid 7.0.1, and to workaround this issue disable compatibility mode.

JDG-333 - `NotSerializableException` while executing streams via JavaScript in a cluster in DIST mode

It is not possible to use scripts that create a `Stream` in JavaScript when the cluster is in **DIST** mode. Any attempts to execute these scripts will result in a `NotSerializableException`, as the

lambdas fail when attempting to be serialized.

This is a known issue in JBoss Data Grid 7.0.1, and to workaround this issue it is recommended to manually iterate over data using an **Iterator**, or to execute lambdas after the data has been transferred from the script to the originator node.

JDG-96 - Cache events are incompatible with CDI 1.1 in JDG 7

When using CDI annotations with the CDI 1.1 API, such as the version found within JBoss EAP 7, a `java.lang.RuntimeException` is thrown; this exception is thrown as the cache events used by JBoss Data Grid 7.0 include content that has been removed by CDI 1.1.

This is a known issue in JBoss Data Grid 7.0.1. This issue is resolved in the CDI 1.2 API; to workaround this issue attach the listeners manually, as outlined in the following steps:

1. Remove CDI annotations from the listener bean, including removing all **@Observes** annotations from methods.
2. Add Listener annotations on desired methods; for example, **@CacheStarted**.
3. Manually register listeners using **AdvancedCache#addListener**.

JDG-447 - Changing transport configuration results in restarting wrong cluster

When updating one server group's transport configuration through the Administration Console and accepting the prompt to restart the server group remains running. Instead, a second server group is restarted in its place.

This is a known issue in JBoss Data Grid 7.0.1, and no workaround exists at this time.

JGRP-2088 - ArrayIndexOutOfBoundsException on ClassConfigurator.get()

When attempting to use the JGroups **ENCRYPT** protocol a **ArrayIndexOutOfBoundsException** is thrown.

This is a known issue in JBoss Data Grid 7.0.1, and to workaround this issue use the **SYM_ENCRYPT** or **ASYM_ENCRYPT** protocols, as described in the JBoss Data Grid *Administration and Configuration Guide*.

JDG-873 - Cross-Site Replication: inconsistent data with multiple site masters in ASYNC mode

Cross-Site replication with multiple site masters may not work properly when configured asynchronously.

Data can be stored inconsistently because the replication relies on the delivery order of the updates to the remote site to be consistent, but with multiple site masters, it's possible an update for the same key will go through a different route than the update before it. This violates the FIFO order and leads to inconsistent data between sites.

This is related to an issue in JGroups, which JBoss Data Grid uses. The issue won't be fixed in the version of JGroups that JDG 7.0.1 uses. The issue may be fixed in a future 7.1.x release of JDG, which uses a different version of JGroups.

This is a known issue in JBoss Data Grid 7.0.1, and to workaround this issue set **max_site_master=1** in **RELAY2**.

[Report a bug](#)

5.2. RESOLVED ISSUES

JDG-1104 - XSite Replication Commands Should Unwrap Security

Previously, cross-site replication did not work if security was enabled for the cache.

With this version of JBoss Data Grid cross-site replication works when security is enabled for the cache.

JDG-1052 - init scripts distributed with server are non functional and include the EAP ones too.

Previously, Red Hat JBoss Data Grid came with a `bin/init.d` directory which contained the following files:

`infinispan-server.conf`

`infinispan-server-1sb.sh`

`infinispan-server.sh`

`jboss-eap.conf`

`jboss-eap-rhel.sh`

The Infinispan files did not work and the JBoss EAP files were not applicable to JBoss Data Grid. As such working files were added and the files which didn't apply have been removed. The following files are now available:

`jboss-datagrid.conf`

`jboss-datagrid-rhel.sh`

This issue is resolved as of Red Hat JBoss Data Grid 7.0.1.

JDG-845 - Rolling Upgrade fixes

Previously, rolling upgrades did not work consistently from Red Hat JBoss Data Grid 6.6.2 through 7.1.

With this version of JBoss Data Grid rolling upgrades now allow seamless data migration with no downtime from version 6.6.2 through 7.1.

JDG-998 - JDG modules for EAP does not include all necessary indexes

The CDI Quickstart Guide demonstrates injection of Infinispan caches into a web application using CDI. Previously, the guide described bundling the JBoss Data Grid EAP modules with the application. However, this is not recommended if the application is deployed inside EAP. The quickstart now specifies the JDG EAP modules be installed directly on the server. If the application is deployed outside of the server the JDG libraries can be still bundled with the application.

This issue is resolved as of Red Hat JBoss Data Grid 7.0.1.

JDG-1048 - API docs are missing classes from `org.infinispan.client.hotrod.*` packages

Previously, Red Hat JBoss Data Grid API documentation, generated by **javadoc**, was incomplete. The API docs were updated to include `leveldb`, `objectfilter`, and `hotrod` client packages. Additionally, several internal configuration APIs were removed from the documentation. Many aesthetic changes were also made to make the docs easier to use.

This issue is resolved as of Red Hat JBoss Data Grid 7.0.1.

JDG-529 - NPE in CacheNotifierImpl by LIRS eviction listener

Previously, when attempting to use an eviction listener with the LIRS eviction strategy a `NullPointerException` was thrown.

This issue is resolved as of Red Hat JBoss Data Grid 7.0.1.

JDG-930 - Netty ByteBuf leak in REST endpoint

Previously, JBoss Data Grid could leak objects from Netty, a network framework used by JDG.

This issue is resolved as of Red Hat JBoss Data Grid 7.0.1.

JDG-931 - REST Interface Security Can No Longer Be Applied To JDG 7.0

Previously, when attempting to implement security on the REST interface in JBoss Data Grid 7.0.0 the settings were ignored, allowing clients to access this interface without providing the required credentials.

This issue is resolved as of Red Hat JBoss Data Grid 7.0.1.

JDG-940 - Fix several SSL security issues for Client Server mode and JCache

Previously, if a JBoss Data Grid 6 HotRod client running on Java 7 was configured to use SSL to connect to a JDG 7 server running on Java 8 the client couldn't establish the connection sporadically and was very slow. If a JDG 7 client was used with Java 8 the client worked as expected. The exception on the server and client respectively were as follows:

```
ERROR [org.infinispan.server.hotrod.CacheDecodeContext] (HotRodServerWorker-4-2)
ISP005003: Exception reported: org.infinispan.server.hotrod.UnknownVersionException: Unknown
version:-96
```

```
TcpTransport [TRACE] Could not connect to server: /192.168.1.1:11222 java.net.ConnectException:
Connection refused: connect
```

A new configuration property was added to set the TLS level. Clients running on Java 7 connecting to servers over SSL running Java 8 should force TLS 1.2 since Java 7 does not enable it by default. The property should be set as follows:

```
infinispan.client.hotrod.ssl_protocol=TLSv1.2
```

This issue is resolved as of Red Hat JBoss Data Grid 7.0.1.

JDG-947 - [GSS](7.0.x) Cache clear doesn't work when passivation is enabled

Previously, the clear of a map wouldn't work if passivation was enabled. The size would never be equal to 0. If passivation was set to false the clear worked as expected and the result of the `cache.size()` method on the map would be 0.

This issue is resolved as of Red Hat JBoss Data Grid 7.0.1.

JDG-951 - LDAP Authorization Common RoleName Mapper Case Insensitive CN extraction

Previously, when enabling security with JBoss Data Grid with an LDAP backend using **common-role-name-mapper** for authorization, the role name failed to extract when its attribute in the distinguished name was **cn** instead of **CN**.

This issue is resolved as of Red Hat JBoss Data Grid 7.0.1.

JDG-517 - ClientListener stops working after connection failure

Previously, when using a JBoss Data Grid server and any Java client, if there was a connection failure ClientListener would stop working. This could be reproduced with `tcpkill`. After killing the connection and putting a key, and then restoring the connection, `ClientCacheEntryModifiedEvent` is expected but does not occur.

This issue is resolved as of Red Hat JBoss Data Grid 7.0.1.

JDG-531 - Expiration is not working under some circumstances with AtomicMap

Previously, when AtomicMaps were used with write skew and simple versioning, lifespan limits from the config file were ignored and instead entries had an infinite lifespan. The configured default value was used if any of the following were done:

Disabled write skew checks

Used a normal put (not atomic maps)

Did not start transactions first

This issue is resolved as of Red Hat JBoss Data Grid 7.0.1.

JDG-889 - Endpoint subsystem doesn't resolve expressions

Previously, the endpoint subsystem didn't use the expression resolver to evaluate resource attributes. This could cause JBoss Data Grid clients to be unable to resolve the system property **external-host**.

This issue is resolved as of Red Hat JBoss Data Grid 7.0.1.

JDG-926 - Remove Expired doesn't work with no auto commit in a clustered

Previously, when auto commit in JBoss Data Grid was set to **false** on clustered caches, expired events were not generated.

This issue is resolved as of Red Hat JBoss Data Grid 7.0.1.

JDG-928 - DMR operation register-proto-schemas fails with NPE if the proto file has syntax errors

Previously, in JBoss Data Grid, DMR operation **register-proto-schemas** could fail with a `NullPointerException` if the proto file had syntax errors. This could also cause the Administration console to not show an error message when using an incorrect schema.

This issue is resolved as of Red Hat JBoss Data Grid 7.0.1.

JDG-932 - SimpleDateFormat is not thread safe

Previously, JBoss Data Grid used **SimpleDateFormat** in **org.infinispan.rest.Server**. Under load this could cause an exception. The affected code now uses equivalent thread safe libraries instead of **SimpleDateFormat**.

This issue is resolved as of Red Hat JBoss Data Grid 7.0.1.

JDG-934 - TransactionTable should ignore view changes during shutdown

Previously, during shutdown an exception could be thrown by **TransactionTable** if the cluster view changed at the same time.

This issue is resolved as of Red Hat JBoss Data Grid 7.0.1.

JDG-935 - Expiration is not applied to a repeatable read entry that was read as null prior

Previously, the expiration metadata was not applied to a newly created entry that was read in the same transaction as a null. Changes in JBoss Data Grid which simplified entry wrapping addressed this issue.

This issue is resolved as of Red Hat JBoss Data Grid 7.0.1.

JDG-936 - LIRS Eviction with local cache under high load fail with a NullPointerException

Previously, a **NullPointerException** could occur in **BoundedEquivalentConcurrentHashMapV8.java** when using **LIRSEvictionPolicy** under high load.

This issue is resolved as of Red Hat JBoss Data Grid 7.0.1.

JDG-937 - NPE in CacheNotifierImpl by LIRS eviction listener

Previously, a **NullPointerException** could occur in **CacheNotifierImpl.notifyCacheEntriesEvicted** when using **LIRSEvictionPolicy**.

This issue is resolved as of Red Hat JBoss Data Grid 7.0.1.

JDG-939 - Expose extra configuration for the SSLContext protocol in the Hot Rod client

Previously, in the HotRod client, the **SSLContext** was created with the hardcoded TLS protocol. This could only be overridden programmatically by providing a custom instance of **SSLContext**. With this update a property was added to change the protocol from the default **SSLContext** via properties files. The new property is **infinispan.client.hotrod.ssl_protocol**

This issue is resolved as of Red Hat JBoss Data Grid 7.0.1.

JDG-973 - Use non-growing buffered input stream in TcpTransport

Previously, **TcpTransport** passed through the provided buffer regardless of its size. If a large buffer was passed in this could lead to excessive direct memory being allocated in JDK classes and pooled in thread-local caches. **TcpTransport** now uses fixed size buffers to avoid this issue.

This issue is resolved as of Red Hat JBoss Data Grid 7.0.1.

JDG-997 - .NET HotRod client includes a lot of redundant files in lib and bin folders

Previously, the HotRod .NET client included dozens of unnecessary or redundant files in the lib and bin folders. With this update unnecessary or redundant files are not included.

This issue is resolved as of Red Hat JBoss Data Grid 7.0.1.

JDG-999 - WARN messages shown during startup for JDG (EAP) CDI modules

Previously, if an application with module dependencies was started with JBoss Data Grid, it could show WARN messages like the following:

WARN [org.jboss.as.weld] JBAS016017: Using deployment classloader to load proxy classes for module org.infinispan.jcache:jdg-7.1. Package-private access will not work. To fix this the module should declare dependencies on [org.jboss.weld.core, org.javassist]

This issue is resolved as of Red Hat JBoss Data Grid 7.0.1.

JDG-1002 - "org.hibernate.search.exception.SearchException: Not a valid ScoreDoc index" under high load

Previously, due to a query caching issue JBoss Data Grid could produce an error under certain conditions.

This issue is resolved as of Red Hat JBoss Data Grid 7.0.1.

JDG-1015 - State transfer does not work with protobuf encoded entities

Previously, if protobuf encoded and indexed items were stored in a replicated cache, when state-transfer started on a node joining the cluster, the transfer triggered exceptions. This update ensures the `__protobuf_metadata` cache is started and state transfer is complete before a cache using protobuf gets started.

This issue is resolved as of Red Hat JBoss Data Grid 7.0.1.

JDG-1109 - Obsolete REST security documentation (7.0.1)

Previously, JBoss Data Grid did not properly enforce security when using the REST interface. This was fixed in [JDG-931](#). The changes required updates to the XML configuration and this has been documented in the *Developer Guide* and the *Administration and Configuration Guide*

This issue is resolved as of Red Hat JBoss Data Grid 7.0.1.

JDG-996 - Backport default configuration files

Previously, JBoss Data Grid 7.1 did not exist. Now that it does and its default configuration settings have been verified to perform better than 7.0.0 default settings, they have been backported to 7.0.1.

This issue is resolved as of Red Hat JBoss Data Grid 7.0.1.

JDG-448 - Endpoints column on cache container page shows wrong ports

Previously, when examining the port for containers in the Administration Console the **port - offset** is not considered, causing multiple containers to show at the same port. After refactoring the codebase this issue no longer occurs.

This issue is resolved as of Red Hat JBoss Data Grid 7.0.1.

[Report a bug](#)

APPENDIX A. REVISION HISTORY

Revision 7.0.1-1 Completed release notes.	Thu 27 Jul 2017	John Brier
Revision 7.0.1-0 Initial draft of release notes.	Mon 17 Jul 2017	John Brier