MySql Operator Release Notes

Abstract

This document contains release notes for the changes in each release of MySql Operator for Kubernetes.

For additional MySql Operator for Kubernetes documentation, see MySql Operator for Kubernetes.

Updates to these notes occur as new product features are added, so that everybody can follow the development process. If a recent version is listed here that you cannot find on the download page (https://dev.mysql.com/downloads/), the version has not yet been released.

The documentation included in source and binary distributions may not be fully up to date with respect to release note entries because integration of the documentation occurs at release build time. For the most up-to-date release notes, please refer to the online documentation instead.

For legal information, see the Legal Notices.

For help with using MySql, please visit the MySql Forums, where you can discuss your issues with other MySql users.

Document generated on: 2023-07-26 (revision: 27028)

Table of Contents

Preface and Legal Notices ................................................................. 1
Changes in MySql Operator for Kubernetes 8.1 .................................... 3
  Changes in MySql Operator for Kubernetes 8.1.0-2.1.0 (2023-07-26, Innovation Release) ..... 3
Changes in MySql Operator for Kubernetes 8.0 .................................... 3
  Changes in MySql Operator for Kubernetes 8.0.34-2.0.11 (2023-07-26, General Availability) ..... 3
  Changes in MySql Operator for Kubernetes 8.0.33-2.0.10 (2023-05-19, General Availability) ..... 3
Changes in MySql Operator for Kubernetes 8.0.32-2.0.9 (2023-04-18, General Availability) ..... 3
  Changes in MySql Operator for Kubernetes 8.0.32-2.0.8 (2023-01-17, General Availability) ..... 4
Changes in MySql Operator for Kubernetes 8.0.31-2.0.7 (2022-10-11, General Availability) ..... 5
Changes in MySql Operator for Kubernetes 8.0.30-2.0.6 (2022-09-05, General Availability) ..... 6
Changes in MySql Operator for Kubernetes 8.0.30-2.0.5 (2022-07-26, General Availability) ..... 6
Changes in MySql Operator for Kubernetes 8.0.29 (2022-04-26, General Availability) .......... 7
Changes in MySql Operator for Kubernetes 8.0.28 (2022-01-18, Development Milestone) ..... 7

Preface and Legal Notices

This document contains release notes for the changes in each General Availability release of MySql Operator for Kubernetes.

Legal Notices

Copyright © 2006, 2023, Oracle and/or its affiliates.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.
The information contained herein is subject to change without notice and is not warranted to be error-
free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone
licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs (including any operating system, integrated
software, any programs embedded, installed or activated on delivered hardware, and modifications of
such programs) and Oracle computer documentation or other Oracle data delivered to or accessed by
U.S. Government end users are "commercial computer software" or "commercial computer software
documentation" pursuant to the applicable Federal Acquisition Regulation and agency-specific
supplemental regulations. As such, the use, reproduction, duplication, release, display, disclosure,
modification, preparation of derivative works, and/or adaptation of i) Oracle programs (including any
operating system, integrated software, any programs embedded, installed or activated on delivered
hardware, and modifications of such programs), ii) Oracle computer documentation and/or iii) other
Oracle data, is subject to the rights and limitations specified in the license contained in the applicable
contract. The terms governing the U.S. Government's use of Oracle cloud services are defined by the
applicable contract for such services. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management
applications. It is not developed or intended for use in any inherently dangerous applications, including
applications that may create a risk of personal injury. If you use this software or hardware in dangerous
applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and
other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any
damages caused by use of this software or hardware in dangerous applications.

Oracle, Java, and MySQL are registered trademarks of Oracle and/or its affiliates. Other names may
be trademarks of their respective owners.

Intel and Intel Inside are trademarks or registered trademarks of Intel Corporation. All SPARC
trademarks are used under license and are trademarks or registered trademarks of SPARC
International, Inc. AMD, Epyc, and the AMD logo are trademarks or registered trademarks of Advanced
Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content,
products, and services from third parties. Oracle Corporation and its affiliates are not responsible
for and expressly disclaim all warranties of any kind with respect to third-party content, products,
and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle
Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to
your access to or use of third-party content, products, or services, except as set forth in an applicable
agreement between you and Oracle.

This documentation is NOT distributed under a GPL license. Use of this documentation is subject to the
following terms:

You may create a printed copy of this documentation solely for your own personal use. Conversion
to other formats is allowed as long as the actual content is not altered or edited in any way. You shall
not publish or distribute this documentation in any form or on any media, except if you distribute the
documentation in a manner similar to how Oracle disseminates it (that is, electronically for download
on a Web site with the software) or on a CD-ROM or similar medium, provided however that the
documentation is disseminated together with the software on the same medium. Any other use, such
as any dissemination of printed copies or use of this documentation, in whole or in part, in another
publication, requires the prior written consent from an authorized representative of Oracle. Oracle and/
or its affiliates reserve any and all rights to this documentation not expressly granted above.

Access to Oracle Support for Accessibility

Oracle customers that have purchased support have access to electronic support through My Oracle
Support. For information, visit
Changes in MySQL Operator for Kubernetes 8.1

Changes in MySQL Operator for Kubernetes 8.1.0-2.1.0 (2023-07-26, Innovation Release)

- Functionality Added or Changed
- Bugs Fixed

Functionality Added or Changed

- The cron jobs created by scheduled backups reference an operator image, and this operator image version now gets updated. (WL #15583)
- Added metric provider support for each MySQL server managed by the operator. (WL #15584)

Bugs Fixed

- Updating labels and annotations in the InnoDB Cluster object did not update them in each associated server StatefulSet and Router Deployment. (Bug #35200956)
- When an InnoDB Cluster was deleted after the last remaining pod was terminated due to rolling restart, then the finalizer was not removed. (Bug #35200413)

Changes in MySQL Operator for Kubernetes 8.0

Changes in MySQL Operator for Kubernetes 8.0.34-2.0.11 (2023-07-26, General Availability)

This release contains no functional changes, aside from the standard MySQL Shell upgrade to match the MySQL Operator for Kubernetes version.

Changes in MySQL Operator for Kubernetes 8.0.33-2.0.10 (2023-05-19, General Availability)

Bugs Fixed

- Fixed a known limitation of the 8.0.33-2.0.9 release, which was: if an existing InnoDB Cluster was initially created using MySQL Operator 8.0.30-2.0.6 or earlier, then an update to 8.0.33-2.0.9 failed with an Init:Error error when one of the server pods was updated. This happened even if there had already been an update to 8.0.32-2.0.8. (Bug #110865, Bug #35341880)

Changes in MySQL Operator for Kubernetes 8.0.33-2.0.9 (2023-04-18, General Availability)

- Known Limitation
- Functionality Added or Changed
- Bugs Fixed

Known Limitation

- A known limitation of this release: if an existing InnoDB Cluster was initially created using MySQL Operator 8.0.30-2.0.6 or earlier, then an update to 8.0.33-2.0.9 fails with an Init:Error error
when one of the server pods is updated. This happens even if there had already been an update to 8.0.32-2.0.8.

Either apply the following workaround to 8.0.33-2.0.9 before performing the upgrade, or instead upgrade to the 8.0.33-2.0.10 release that followed.

```bash
$> kubectl patch sts mycluster --patch '{"spec": { "template": { "spec": { "containers": [ { "name": "sidecar", "command": ["mysqlsh", "--pym", "mysqloperator", "sidecar", "--pod-name", "$\{MY_POD_NAME\}\", "--pod-namespace", "$\{MY_POD_NAMESPACE\}\", "--datadir", "/var/lib/mysql"]}], "initContainers": [ { "name": "initconf", "command": ["mysqlsh", "--log-level=@INFO", "--pym", "mysqloperator", "init", "--pod-name", "$\{MY_POD_NAME\}\", "--pod-namespace", "$\{MY_POD_NAMESPACE\}\", "--datadir", "/var/lib/mysql"]}]}}}'
```

(Bug #110865, Bug #35341880)

### Functionality Added or Changed

- Updating a MySQL server image now also updates the MySQL Operator sidecar to the latest version. (WL #15452)

- Added custom cluster domain detection to allow name's other than "cluster.local" for services inside the cluster. The operator detects the domain on startup, or alternatively instead of detection it uses either the new MYSQL_OPERATOR_K8S_CLUSTER_DOMAIN environment variable or the new k8sClusterDomain option in Helm. (WL #15512)

- The default container registry changed from DockerHub to the Oracle Container Registry (OCR). This change includes both the prefix and image naming scheme. For example, "mysql/mysqloperator" becomes "container-registry.oracle.com/mysql/community-operator" with similar changes for the router, server, and operating system.

Local registry mirrors must change images names to the community-[server|router|operator] format instead of mysql-[server|router|operator]. (WL #15579)

### Bugs Fixed

- Added labels and annotations to the "create backup job" backup pods. (Bug #35082223)

- Dropped `securityContext` capabilities for MySQL server and router by setting their capabilities to `drop: - ALL`. (Bug #35078555)

- The primary service for a MySQL InnoDBCluster did not expose MySQL Router's REST API. The port name `router-rest` was added that evaluates to 8443. (Bug #34925361)

- Installing or upgrading a MySQL InnoDBCluster with Helm would ignore a router.podSpec definition if `tls.useSelfSigned` was enabled. (Bug #110212, Bug #35131229)

- Added helm functionality to disable lookups for MySQL Operator. Thanks to Mayank Mohindra for the contribution. (Bug #109746, Bug #35015230)

- Renaming a backup profile name caused MySQL Operator to throw an exception every minute. (Bug #109419, Bug #34910811)

### Changes in MySQL Operator for Kubernetes 8.0.32-2.0.8 (2023-01-17, General Availability)

- Functionality Added or Changed

- Bugs Fixed
MySQL Operator Release Notes

Functionality Added or Changed

• Added support for the following MySQL server enterprise keyring features: keyring UDF functions, keyring_file, keyring_encrypted_file, and keyring_ocl. This adds a new "keyring" element to the InnoDB Cluster specification. (WL #15267)

Bugs Fixed

• An unhandled exception was emitted by dba.removeInstance() if the finalizer of the pod being deleted (due to eviction, scale down, version upgrade, or general STS change) was not removed; the operation would remain stuck in the terminating state. (Bug #34860802)

• Defining a repository URL with a trailing slash was not recognized as a valid URL. (Bug #34731139)

• Added podLabels and podAnnotations support for InnoDB cluster and backup profiles. (Bug #34728086, Bug #34733731)

• The readinessprobe.sh script could not write to /mysql-ready as a shortcut to indicate readiness for the container. It's now written to /tmp/mysql-ready and functions for new InnoDB clusters. (Bug #34719171)

• InnoDB cluster deployment could create a second router before the first router was terminated, and do so when one router was expected. (Bug #34689594)

• The MySQL InnoDBCluster helm charts did not allow specifying the podSpec for a router. This prevented specifying settings such as affinity for the deployed routers. (Bug #34659086)

• Operator now supports a spec.initDB.dump.options object as a dictionary of key-value pairs that are directly passed to MySQL Shell's loadDump(). (Bug #34648640)

• Added a securityContext specification to backups that allows the backup pod to execute and store files as user mysql:mysql instead of user root:root. This also adds a new initContainer named fixdumpdir that changes the mounted directory to mysql:mysql. (Bug #34559403)

• Altered security context capabilities by changing the following privileges from 'add' to 'drop': DAC_OVERRIDE, SETGID, SETUID, SYS_NICE, and SYS_RESOURCE. (Bug #108196, Bug #34568118)

Changes in MySQL Operator for Kubernetes 8.0.31-2.0.7 (2022-10-11, General Availability)

• Functionality Added or Changed

• Bugs Fixed

Functionality Added or Changed

• Added AWS S3 support, a feature added in MySQL Shell 8.0.30. This extends the dumpInstance.storage and initDB.storage properties to include an s3 property with bucketName and credentials. The credentials property is a Kubernetes Secret with awsAccessKeyId, awsSecretAccessKey, awsSessionToken (optional), region, and s3EndpointOverride (optional). (WL #15115)

Bugs Fixed

• Added Kubernetes 1.25 support, and dropped compatibility for Kubernetes 1.20 and older. (Bug #34624864)

• The dumpOptions definition defined in a MySQL Backup request was ignored. (Bug #34569963)
• Fixed cluster controller that would prevent the operator to transition the cluster to a ready state when using initDB.dump.storage. (Bug #34568096)

• The operator now only checks changes to InnoDBCluster related secrets. (Bug #34537538)

Changes in MySQL Operator for Kubernetes 8.0.30-2.0.6 (2022-09-05, General Availability)

• Functionality Added or Changed

• Bugs Fixed

Functionality Added or Changed

• The 8.0.30 enterprise edition installs MySQL Shell 8.0.29 instead of 8.0.30. (Bug #108189, Bug #34519959)

• Enterprise data masking and encryption functions are now enabled by default for enterprise versions. (WL #15224)

Bugs Fixed

• Added error handling to account for the MySQL Server 8.0.29 removal. (Bug #34537780)

• For Helm, added support to customize the podSpec section. (Bug #34491762)

• For Helm, added support to customize the storageClassName field.

  Our thanks to Alberto Clemente for the contribution. (Bug #108083, Bug #34472884)

• For Helm, added support to select the MySQL Edition (as either ’community’ or ’enterprise’).

  Our thanks to Alberto Clemente for the contribution. (Bug #108082, Bug #34472883)

Changes in MySQL Operator for Kubernetes 8.0.30-2.0.5 (2022-07-26, General Availability)

• Functionality Added or Changed

• Bugs Fixed

Functionality Added or Changed

• Updated the following dependencies: Kopf from v1.33.0 to v1.35.4, and the Kubernetes client from v18.20.0 to v23.6.0. (WL #15047)

• Group replication now uses the MySQL protocol to establish connections instead of the internal XCom communication infrastructure. Newly created clusters use the MySQL Protocol via port 3306, whereas clusters created using a previous version will continue to use XCom on port 33061.

  This also changes the minimum supported MySQL Server version from v8.0.24 to v8.0.27. (WL #15225)

• Added cert-manager (a CNCF project) support. (WL #15231)

Bugs Fixed

• Backup cron jobs were not deleted when their associated InnoDB Cluster was deleted. (Bug #33788741)
MySQL Operator Release Notes

- Removed the **AUDIT_READ** securityContext capability; a feature introduced in Linux Kernel 3.16 which is too new for some K8s installations, such as Enterprise Linux 7. (Bug #107322, Bug #34218300)

- Added mycnf support in the InnoDB Cluster helm chart.
  
  Thanks to Ales Verbic for the contribution. (Bug #107082, Bug #34095308)

### Changes in MySQL Operator for Kubernetes 8.0.29 (2022-04-26, General Availability)

![Important]

Because **MySQL Server 8.0.29 was removed**, attempts to pull in MySQL Server 8.0.29 images will fail. Instead, upgrade to MySQL Operator for Kubernetes 8.0.30.

MySQL Operator for Kubernetes reached General Availability status in version 8.0.29. Release notes were added after this release, beginning with 8.0.30.

### Changes in MySQL Operator for Kubernetes 8.0.28 (2022-01-18, Development Milestone)

There are no release notes for this release.