Preface and Legal Notices

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

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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
MySQL Operator Release Notes

- **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/mysql-operator" 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.
MySQL Operator Release Notes

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

Functionality Added or Changed

- Added support for the following MySQL server enterprise keyring features: keyring UDF functions, keyring_file, keyring_encrypted_file, and keyring_oci. 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
MySQL Operator Release Notes

- 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
MySQL Operator Release Notes

- **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)

- 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.