
MySQL NDB Operator 8.0 Release Notes

Abstract

This document contains release notes for the changes in each release of MySQL NDB Operator 8.0 for Kubernetes.

For additional NDB Operator documentation, see <https://dev.mysql.com/doc/ndb-operator/8.0/en/>.

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: 2024-12-24 (revision: 29446)

Table of Contents

Preface and Legal Notices	1
Changes in NDB Operator 8.0.40-1.0.9 (2024-10-15, General Availability)	3
Changes in NDB Operator 8.0.39-1.0.8 (2024-07-23, General Availability)	3
Changes in NDB Operator 8.0.38-1.0.7 (2024-07-01, General Availability)	3
Changes in NDB Operator 8.0.37-1.0.6 (2024-04-30, General Availability)	4
Changes in NDB Operator 8.0.36-1.0.5 (2024-01-16, General Availability)	4
Changes in NDB Operator 8.0.35-1.0.4 (2023-10-25, General Availability)	4
Changes in NDB Operator 8.0.34-1.0.3 (2023-07-26, General Availability)	5
Changes in NDB Operator 8.0.33-1.0.2 (2023-04-18, General Availability)	6
Changes in NDB Operator 8.0.32-1.0.1 (2023-01-18, General Availability)	7
Changes in NDB Operator 8.0.31-1.0.0 (2022-10-11, General Availability)	8

Preface and Legal Notices

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

Legal Notices

Copyright © 2006, 2025, Oracle and/or its affiliates.

License Restrictions

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.

Warranty Disclaimer

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.

Restricted Rights Notice

If this is software, software documentation, data (as defined in the Federal Acquisition Regulation), 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," "commercial computer software documentation," or "limited rights data" 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.

Hazardous Applications Notice

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.

Trademark Notice

Oracle, Java, MySQL, and NetSuite 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.

Third-Party Content, Products, and Services Disclaimer

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.

Use of This Documentation

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.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

Access to Oracle Support for Accessibility

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

Changes in NDB Operator 8.0.40-1.0.9 (2024-10-15, General Availability)

This is MySQL NDB Operator 8.0.40-1.0.9, a GA release of NDB Operator, a Kubernetes Operator for MySQL NDB Cluster.

For additional downloads and the source of MySQL NDB Operator visit <https://dev.mysql.com/downloads/ndb-operator/> and <https://github.com/mysql/mysql-ndb-operator>.

For more information on MySQL NDB Operator see the online documentation at <https://dev.mysql.com/doc/ndb-operator/en/>.

For more information about MySQL NDB Cluster, see <https://dev.mysql.com/doc/refman/8.0/en/mysql-cluster.html>.

This release contains no functional changes.

Changes in NDB Operator 8.0.39-1.0.8 (2024-07-23, General Availability)

This is MySQL NDB Operator 8.0.39-1.0.8, a GA release of NDB Operator, a Kubernetes Operator for MySQL NDB Cluster.

For additional downloads and the source of MySQL NDB Operator visit <https://dev.mysql.com/downloads/ndb-operator/> and <https://github.com/mysql/mysql-ndb-operator>.

For more information on MySQL NDB Operator see the online documentation at <https://dev.mysql.com/doc/ndb-operator/en/>.

For more information about MySQL NDB Cluster, see <https://dev.mysql.com/doc/refman/8.0/en/mysql-cluster.html>.

This release contains no functional changes.

Changes in NDB Operator 8.0.38-1.0.7 (2024-07-01, General Availability)



Important

This release is no longer available for download. It was removed due to a dependency on a version of the MySQL server which is also no longer available

for download. See [MySQL 8.0.38 Release Notes](#). Please upgrade to NDB Operator 8.0.39-1.0.8 instead.

This is MySQL NDB Operator 8.0.38-1.0.7, a GA release of NDB Operator, a Kubernetes Operator for MySQL NDB Cluster.

For additional downloads and the source of MySQL NDB Operator visit <https://dev.mysql.com/downloads/ndb-operator/> and <https://github.com/mysql/mysql-ndb-operator>.

For more information on MySQL NDB Operator see the online documentation at <https://dev.mysql.com/doc/ndb-operator/en/>.

For more information about MySQL NDB Cluster, see <https://dev.mysql.com/doc/refman/8.0/en/mysql-cluster.html>.

This release contains no functional changes.

Changes in NDB Operator 8.0.37-1.0.6 (2024-04-30, General Availability)

This is MySQL NDB Operator 8.0.37-1.0.6, a GA release of NDB Operator, a Kubernetes Operator for MySQL NDB Cluster.

For additional downloads and the source of MySQL NDB Operator visit <https://dev.mysql.com/downloads/ndb-operator/> and <https://github.com/mysql/mysql-ndb-operator>.

For more information on MySQL NDB Operator see the online documentation at <https://dev.mysql.com/doc/ndb-operator/en/>.

For more information about MySQL NDB Cluster, see <https://dev.mysql.com/doc/refman/8.0/en/mysql-cluster.html>.

This release contains no functional changes.

Changes in NDB Operator 8.0.36-1.0.5 (2024-01-16, General Availability)

This is MySQL NDB Operator 8.0.36-1.0.5, a GA release of NDB Operator, a Kubernetes Operator for MySQL NDB Cluster.

For additional downloads and the source of MySQL NDB Operator visit <https://dev.mysql.com/downloads/ndb-operator/> and <https://github.com/mysql/mysql-ndb-operator>.

For more information on MySQL NDB Operator see the online documentation at <https://dev.mysql.com/doc/ndb-operator/en/>.

For more information about MySQL NDB Cluster, see <https://dev.mysql.com/doc/refman/8.0/en/mysql-cluster.html>.

Version 8.0.36-1.0.5 has no release notes, or they have not been published because the product version has not been released.

Changes in NDB Operator 8.0.35-1.0.4 (2023-10-25, General Availability)

This is MySQL NDB Operator 8.0.35-1.0.4, a GA release of NDB Operator, a Kubernetes Operator for MySQL NDB Cluster.

For additional downloads and the source of MySQL NDB Operator visit <https://dev.mysql.com/downloads/ndb-operator/> and <https://github.com/mysql/mysql-ndb-operator>.

For more information on MySQL NDB Operator see the online documentation at <https://dev.mysql.com/doc/ndb-operator/en/>.

For more information about MySQL NDB Cluster, see <https://dev.mysql.com/doc/refman/8.0/en/mysql-cluster.html>.

Bugs Fixed

- This fix addresses the following issues:
 1. The `check_version()` shell script function, responsible for checking the MySQL Cluster version and whether it meets the minimum required, contained errors.
 2. The Java SDK included in the Docker file `mysql-cluster-builder:ol8` was updated to version 17.

(Bug #35691446)

- NDB Operator did not detect initiation script failures, causing it to start the `mysqld` container even when there were errors in the `init` container.
- In a multi-node Kubernetes environment, an issue arose when the user opted to use an image secret to retrieve the NDB Operator image while deploying it, leading to a situation where one or more pods encounter failures due to image pull failures. This problem emerged because all NDB Cluster pods spawned by NDB Operator include an initialization container that necessitates the presence of the `ndb-operator` image.

The root of the issue was that the necessary image pull secret was not included in the pod specifications. Consequently, when a pod was instantiated on any node other than the one where NDB Operator was deployed, it lacked the essential image pull secret, which meant that, since the required image could not be fetched from the repository, pod initialization could not take place.

Changes in NDB Operator 8.0.34-1.0.3 (2023-07-26, General Availability)

This is MySQL NDB Operator 8.0.34-1.0.3, a GA release of NDB Operator, a Kubernetes Operator for MySQL NDB Cluster.

For additional downloads and the source of MySQL NDB Operator visit <https://dev.mysql.com/downloads/ndb-operator/> and <https://github.com/mysql/mysql-ndb-operator>.

For more information on MySQL NDB Operator see the online documentation at <https://dev.mysql.com/doc/ndb-operator/en/>.

For more information about MySQL NDB Cluster, see <https://dev.mysql.com/doc/refman/8.0/en/mysql-cluster.html>.

Bugs Fixed

- The NDB Operator initialization script contains multiple SQL statements and is executed as an `init` container in the `mysqld` pod. An issue in MySQL Server 8.1.0 meant that, when a space was present before the leading `#` character in a comment preceding a `delimiter` command included in the script (see [mysql Client Commands](#)), the command was skipped. This led to discrepancies when executing later statements, preventing the `mysqld` pod from starting up successfully. (Bug #35619717)

- NDB Operator utilizes Kubernetes [validatingwebhookconfiguration](#) and [mutatingwebhookconfiguration](#) objects to validate CRD requests before forwarding them to the Kubernetes API server. These webhook configurations generate an HTTP message and send it to a separate pod running an HTTP server alongside the `ndb-operator` pod. The responsibility of the HTTP server is to validate the user-specified specifications and provide an appropriate response to the webhook configurations. The Kubernetes webhook configurations object determines whether to accept or to reject the user's CRD request based on the response.

To establish secure communication, the HTTP server requires a valid certificate, which makes it essential for both the HTTP server and webhook configurations to have valid certificates before initiating communication. During startup, the HTTP server generates a certificate and key, and then updates all the webhook configurations by adding this certificate to them. Subsequently, when creating the HTTP request, the webhook configurations use these certificates, and these same certificates are employed on the server side for validation.

When installing NDB Operator using the Operator Package Manager (OPM), the ownership of the webhook configurations resided with the CSV ([ClusterServiceVersion](#)). As a result, any modifications made to the webhook configurations were not reflected since the CSV has control over the Kubernetes objects created by it. Consequently, the authentication step failed for the HTTP requests sent by the webhook configurations.

Since OPM already possesses a Certificate Authority (CA) and creates certificates for all components, we resolve this issue by making sure that the server detects the installation mode, and if the mode is OPM, that it makes use of the certificates given by the CA rather than creating its own. (Bug #35408957)

Changes in NDB Operator 8.0.33-1.0.2 (2023-04-18, General Availability)

This is MySQL NDB Operator 8.0.33-1.0.2, a GA release of NDB Operator, a Kubernetes Operator for MySQL NDB Cluster.

For additional downloads and the source of MySQL NDB Operator visit <https://dev.mysql.com/downloads/ndb-operator/> and <https://github.com/mysql/mysql-ndb-operator>.

For more information on MySQL NDB Operator see the online documentation at <https://dev.mysql.com/doc/ndb-operator/en/>.

For more information about MySQL NDB Cluster, see <https://dev.mysql.com/doc/refman/8.0/en/mysql-cluster.html>.

- [Functionality Added or Changed](#)
- [Bugs Fixed](#)

Functionality Added or Changed

- NDB Operator now supports installation with an Operator Lifecycle Manager (OLM), using the packaging structure described at <https://k8s-operatorhub.github.io/community-operators/packaging-operator/>. This package should be compatible with all providers requiring an OLM package, such as OperatorHub.io, OKD, and OpenShift. (WL #15565)
- The sources for the GoLang MySQL driver used with NDB Operator are now included with the distribution. (WL #15565)
- The following third-party libraries used with NDB Operator have been updated to the versions indicated:
 - Go-MySQL-Driver v1.7.0

- [Go-YAML](#): Updated to version 3.0.1
- Kubernetes API: Updated to version 0.26.1
- Kubernetes [apimachinery](#): Updated to version 0.26.1
- [client-go](#): Updated to version 0.26.1
- [klog](#): Updated to version 2.90.0

(WL #15565)

Bugs Fixed

- **Packaging:** The default container registry has changed from DockerHub to the [Oracle Container Registry](#) (OCR). This change includes both the prefix and image naming scheme, so that `mysql/ndb-operator` becomes `container-registry.oracle.com/mysql/community-ndb-operator`.

This also means that local registry mirrors must change image names to use the `community-ndb-operator` format instead of `mysql-ndb-operator`. (WL #15579)

Changes in NDB Operator 8.0.32-1.0.1 (2023-01-18, General Availability)

This is MySQL NDB Operator 8.0.32-1.0.1, a GA release of NDB Operator, a Kubernetes Operator for MySQL NDB Cluster.

For additional downloads and the source of MySQL NDB Operator visit <https://dev.mysql.com/downloads/ndb-operator/> and <https://github.com/mysql/mysql-ndb-operator>.

For more information on MySQL NDB Operator see the online documentation at <https://dev.mysql.com/doc/ndb-operator/en/>.

For more information about MySQL NDB Cluster, see <https://dev.mysql.com/doc/refman/8.0/en/mysql-cluster.html>.

Functionality Added or Changed

- It is now possible to detect and overcome failures in a deployment or [StatefulSet](#) when encountering errors in configuration of the cluster.

Previously, when an update to an [NdbCluster](#) Custom Resource Definition was rejected due to a configuration error, NDB Operator continued to try the invalid configuration, hanging while in the reconciliation state. Because the Operator's web hook did not allow any new updates to the CRD due to the one ongoing, the user could not correct the configuration error made in the previous update without deleting and then re-creating the [NdbCluster](#) CRD. Situations of this type could occur when there were errors in the specified Docker image, as well as in the configuration of one or more data nodes, SQL nodes, or both.

We now provide for handling of such scenarios in two ways:

- We now display any configuration errors raised in the status of an update to the CRD, which helps the user identify the problem, fix the specification, and propose a new [NdbCluster](#) CRD update with the correct configuration.
- The NDB Operator web hook now allows a new [NdbCluster](#) CRD update when an error is found resulting from the previous change to the CRD (creation of a new [NdbCluster](#) CRD, or modification of an existing one).

(WL #15555)

Changes in NDB Operator 8.0.31-1.0.0 (2022-10-11, General Availability)

Functionality available in this initial GA release includes the following:

- Support for MySQL NDB Cluster 8.0.26 and later.
- Support for Kubernetes clusters using Kubernetes 1.19.0 and later.
- Installation with Helm, using the provided Helm chart, or with `kubect1`, using the included `ndb-operator.yaml` file.
- Support for persistent volume claims (PVCs) for MySQL Server data directories using an `NdbCluster` custom resource definition (CRD).

For additional downloads and the source of MySQL NDB Operator visit <https://dev.mysql.com/downloads/ndb-operator/> and <https://github.com/mysql/mysql-ndb-operator>.

For more information on MySQL NDB Operator, see the online documentation at <https://dev.mysql.com/doc/ndb-operator/en/>.