
MySQL NDB Operator 8.3 Release Notes

Abstract

This document contains release notes for the changes in MySQL NDB Operator 8.3 for Kubernetes.

For additional NDB Operator documentation, see <https://dev.mysql.com/doc/ndb-operator/8.3/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: 2024-04-29 (revision: 28292)

Table of Contents

Preface and Legal Notices	1
Changes in NDB Operator 8.3.0-1.3.0 (2024-01-16, Innovation Release)	3

Preface and Legal Notices

This document contains release notes for the changes in MySQL NDB Operator 8.3 for Kubernetes.

Legal Notices

Copyright © 2006, 2024, 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 8.3.0-1.3.0 (2024-01-16, Innovation Release)

This is MySQL NDB Operator 8.3.0-1.3.0, an Innovation 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/8.3/en/mysql-cluster.html>.

Functionality Added or Changed

- With the following fixes made in this release, NDB Operator now supports OpenShift containers:
 - A permissions error in `mysqld` containers was due to the NDB Operator requiring elevated privileges (`chmod` and `chown`) for sensitive file operations. This was caused by OpenShift's default pod initialization with restricted privileges.

We fix this by updating NDB Operator so that it automatically creates and attaches to all pods a dedicated service account whose Security Context Constraints (SCC) can now be modified using the `oc adm policy` command, granting users the flexibility to adjust the privileges associated with the service account. This modification enables pods to start with elevated privileges, resolving permission errors encountered during file operations in `mysqld` containers.
 - An ownership reference problem with PVC finalizers in OpenShift occurred when setting the operator's CRD as the owner for PVCs created by the `StatefulSet`.

This is addressed by refactoring the approach used by the NDB controller delete event so that it now manages the deletion of all PVCs created by NDB Operator, removing the ownership reference to the operator's CRD. This resolves the PVC finalizer issues observed in OpenShift environments.
 - OpenShift triggered warnings due to unset resource fields in `init` containers.

This is resolved by including resource fields for `init` containers in the NDB Operator code, setting them with the same resource specifications as the main container. Since Kubernetes selects only the highest resource value among all `init` containers, this addition does not affect the node scheduling process.

(Bug #36033825)