MySQL NDB Operator 8.2 Release Notes

Abstract

This document contains release notes for the changes in MySQL NDB Operator 8.2 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: 2023-10-26 (revision: 27447)

Table of Contents

Preface and Legal Notices ................................................................. 1
Changes in NDB Operator 8.2.0-1.2.0 (2023-10-25, Innovation Release) ............................................. 3

Preface and Legal Notices

This document contains release notes for the changes in MySQL NDB Operator 8.2 for Kubernetes.

Legal Notices

Copyright © 2006, 2023, 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
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=docacc. If you are hearing impaired, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs.

Changes in NDB Operator 8.2.0-1.2.0 (2023-10-25, Innovation Release)

This is MySQL NDB Operator 8.2.0-1.2.0, an Innovation release of NDB Operator, a Kubernetes Operator for MySQL NDB Cluster.


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


• Functionality Added or Changed
• Bugs Fixed

Functionality Added or Changed

• NDB Operator now supports NDB Cluster transparent data encryption (TDE). This work includes the following changes:
  • Added a new TDESecretName field to NdbClusterSpec, allowing the user to specify the name of a secret holding the required encryption key or password. If a value is provided for this field, NDB Operator enables TDE and uses the password stored in the secret as the file system password for all data nodes in the cluster. (If no such value is provided, TDE is not enabled.)
  • EncryptedFileSystem is now updated in the cluster config.ini file when TDE is enabled.
  • ndbdStatefulSet now sends --filesystem-password and --initial to the ndbd container when TDESecretName is set.
  • NDB Operator now compares the TDE state of the current cluster configuration with that of a new incoming NdbClusterSpec, to ensure that config.ini generation includes TDE configuration information and that appropriate rolling restarts are performed by any cluster nodes affected by a configuration change.

(WL #15904)

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.
NDB Operator 8.2.0 requires Java 17 or later.

(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.