MySQL NDB Operator 8.1 Release Notes

Abstract

This document contains release notes for the changes in each release of MySQL NDB Operator 8.1 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: 2023-09-19 (revision: 27269)

Table of Contents

 Preface and Legal Notices .................................................................................................................. 1
 Changes in NDB Operator 8.1.0-1.1.0 (2023-07-26, Innovation Release) ........................................ 3

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, 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:

**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 8.1.0-1.1.0 (2023-07-26, Innovation Release)

This is MySQL NDB Operator 8.1.0-1.1.0, 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/.


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)