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# MySQL NDB Operator 8.2 Release Notes

## Abstract

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

For additional NDB Operator documentation, see <https://dev.mysql.com/doc/ndb-operator/8.2/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.

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## 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 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/8.2/en/mysql-cluster.html>.

- [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.
  - `ndbmtStatefulSet` 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.