MySQL NDB Cluster 9.5 Release Notes

Abstract

This document contains release notes for the changes in each release of MySQL NDB Cluster that uses version 9.5 of the NDB (NDBCLUSTER) storage engine.

Each NDB Cluster 9.5 release is based on a mainline MySQL Server release and a particular version of the NDB storage engine, as shown in the version string returned by executing SELECT VERSION() in the mysql client, or by executing the ndb_mgm client SHOW or STATUS command; for more information, see MySQL NDB Cluster 9.5.

For general information about features added in NDB Cluster 9.5, see What is New in MySQL NDB Cluster 9.5. For a complete list of all bug fixes and feature changes in MySQL NDB Cluster, please refer to the changelog section for each individual NDB Cluster release.

For additional MySQL 9.5 documentation, see the MySQL 9.5 Reference Manual, which includes an overview of features added in MySQL 9.5 that are not specific to NDB Cluster (What Is New in MySQL 9.5), and discussion of upgrade issues that you may encounter for upgrades from MySQL 9.4 to MySQL 9.5 (Changes in MySQL 9.5). For a complete list of all bug fixes and feature changes made in MySQL 9.5 that are not specific to NDB, see MySQL 9.5 Release Notes.

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: 2025-10-24 (revision: 30694)

Table of Contents

Preface and Legal Notices	1
Changes in MySQL NDB Cluster 9.5.0 (2025-10-23, Innovation Release)	3
Index	4

Preface and Legal Notices

This document contains release notes for the changes in each release of MySQL NDB Cluster that uses version 9.5 of the NDB storage engine.

Legal Notices

Copyright © 1997, 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 MySQL NDB Cluster 9.5.0 (2025-10-23, Innovation Release)

MySQL NDB Cluster 9.5.0 is a new Innovation release of NDB Cluster, based on MySQL Server 9.5 and including features in version 9.5 of the NDB storage engine, as well as fixing recently discovered bugs in previous NDB Cluster releases.

Obtaining MySQL NDB Cluster 9.5. NDB Cluster 9.5 source code and binaries can be obtained from https://dev.mysql.com/downloads/cluster/.

For an overview of major changes made in NDB Cluster 9.5, see What is New in MySQL NDB Cluster 9.5.

This release also incorporates all bug fixes and changes made in previous NDB Cluster releases, as well as all bug fixes and feature changes which were added in mainline MySQL 9 through MySQL 9.5.0 (see Changes in MySQL NDB Cluster 9.5.0 (2025-10-23, Innovation Release)).

- Deprecation and Removal Notes
- · Functionality Added or Changed
- Bugs Fixed

Deprecation and Removal Notes

• Support for Ndb.cfg configuration files, deprecated in MySQL 9.1, has been removed; such files are no longer read by any NDB Cluster executable.

For further information, see NDB Cluster Connection Strings. (WL #16302)

Functionality Added or Changed

- MySQL NDB Cluster now generates log entries for redo logging issues, including redo log buffer exhaustion, redo log space exhaustion, and file change problems, which can cause transactions to be aborted, queued, or delayed. A secondary overload control mechanism monitors the rate at which the redo log part's Redo buffer is flushed to disk and estimates the time required to complete writing all data in the part's Redo buffer. (Bug #37903091)
- LogLevelBackup and LogLevelSchema Data node options were added in this release. (Bug #28004136)

Bugs Fixed

- If a data node restarted during a backup, the remaining data nodes could hang and the backup process stopped. The backup was marked as failed, and other nodes did not terminate their backup process, preventing further backups from being initiated. (Bug #38316252)
- It was not possible to restore backups with BackupID values greater than 2147483647, with the ndb_restore tool. Errors were returned similar to the following:

```
ndb_restore: [Warning] option 'backupid': signed value
300000000 adjusted to 2147483647. Failed to find backup
2147483647.
```

(Bug #38260769)

• Setting log level options for data nodes in MySQL NDB Cluster, such as LogLevelCheckpoint, LogLevelStatistic, LogLevelInfo, LogLevelCongestion, LogLevelError, and LogLevelConnection to a higher value does not provide additional log information beyond their default values. Errors were returned similar to the following:

```
Ndb kernel thread 0 is stuck in: Job Handling elapsed=100,
Watchdog: Warning overslept
```

(Bug #17847063)

Index

ı

log level, 3

N

NDB Cluster, 3 Ndb.cfg, 3