Distribution for MongoDB Documentation 4.2

4.2.25 (February 8, 2024)

Percona Technical Documentation Team

Percona LLC, © 2024

Table of contents

1. Percona Distribution for MongoDB 4.2 Documentation	3
 Installation and upgrade 	4
2.1 Install Percona Distribution for MongoDB	4
2.2 Repository overview	- 8
2.3 Minor upgrade of Percona Distribution for MongoDB	9
3. Release notes	11
3.1 Percona Distribution for MongoDB release notes	
3.2 Percona Distribution for MongoDB 4.2.25 (2024-02-08)	12
	12
3.3 Percona Distribution for MongoDB 4.2.24 (2023-03-09)	
3.4 Percona Distribution for MongoDB 4.2.23 (2022-11-08)	14
3.5 Percona Distribution for MongoDB 4.2.22 (2022-09-06)	16
3.6 Percona Distribution for MongoDB 4.2.21 (2022-06-29)	18
3.7 Percona Distribution for MongoDB 4.2.20 (2022-05-23)	20
3.8 Percona Distribution for MongoDB 4.2.19 (2022-03-29)	22
3.9 Percona Distribution for MongoDB 4.2.18 (2022-01-19)	23
3.10 Percona Distribution for MongoDB 4.2.17 (2021-10-11)	24
3.11 Percona Distribution for MongoDB 4.2.15 (2021-07-26)	25
3.12 Percona Distribution for MongoDB 4.2.14 (2021-05-12)	26
3.13 Percona Distribution for MongoDB 4.2.13 (2021-04-01)	27
3.14 Percona Distribution for MongoDB 4.2.12 (2021-02-03)	28
3.15 Percona Distribution for MongoDB 4.2.11 (2020-12-07)	29
3.16 Percona Distribution for MongoDB 4.2.10 (2020-11-02)	30
3.17 Percona Distribution for MongoDB 4.2.9 Update (2020-10-09)	31
3.18 Percona Distribution for MongoDB 4.2.9 (2020-09-03)	32
3.19 Percona Distribution for MongoDB 4.2.8 (2020-07-07)	33
3.20 Percona Distribution for MongoDB 4.2.7 (2020-06-04)	34
3.21 Percona Distribution for MongoDB 4.2.6 (2020-05-15)	35
4. Copyright and licensing information	36
4.1 Documentation licensing	36
5. Trademark Policy	37

1. Percona Distribution for MongoDB 4.2 Documentation

Percona Distribution for MongoDB is a collection of Percona for MongoDB software integrated with each other and packed into a single solution. It is aimed to maximize performance while being more cost-effective for teams to run over time.

Percona Distribution for MongoDB includes the following components:

- Percona Server for MongoDB is a fully compatible source available, drop-in replacement for MongoDB.
- Percona Backup for MongoDB is a distributed, low-impact solution for achieving consistent backups of MongoDB sharded clusters and replica sets.

Get started { .md-button } What's new { .md-button }

Last update: March 9, 2023 Created: December 9, 2022

2. Installation and upgrade

2.1 Install Percona Distribution for MongoDB

We recommend to install Percona Distribution for MongoDB from Percona repositories using the package manager of your operating system. Find the list of supported Linux distributions on the Percona Software and Platform Lifecycle page.

Alternatively, you can download Percona Distribution for MongoDB from Percona website and install it manually from binary tarballs.

Choose how you wish to install Percona Distribution for MongoDB:

On Debian/Ubuntu

Run the following commands as root or by using the **sudo** command.

1. Install percona-release

Install the percona-release repository management tool to subscribe to Percona repositories:

• Install curl

\$ sudo apt update
\$ sudo apt install curl

Download the percona-release package

\$ curl -0 https://repo.percona.com/apt/percona-release_latest.generic_all.deb

Install the package and dependancies

\$ sudo apt install gnupg2 lsb-release ./percona-release_latest.generic_all.deb

- Refresh the local cache
- \$ supo apt update
- 2. Enable the repository

Percona provides two repositories for Percona Distribution for MongoDB. To enable a repository, we recommend using the setup command:

\$ sudo percona-release setup pdmdb-4.2

3. Install Percona Distribution for MongoDB packages

\$ sudo apt install percona-server-mongodb percona-backup-mongodb

On RHEL/derivatives

Run the following commands as root or by using the **sudo** command.

1. Install percona-release

Install the percona-release repository management tool to subscribe to Percona repositories:

\$ sudo yum install -y https://repo.percona.com/yum/percona-release-latest.noarch.rpm

2. Enable the repository

Percona provides two repositories for Percona Distribution for MongoDB. To enable a repository, we recommend using the setup command:

\$ sudo percona-release setup pdmdb-4.2

3. Install Percona Distribution for MongoDB packages

\$ sudo yum install percona-server-mongodb percona-backup-mongodb

From tarballs

6 of 37 You can find binary tarballs on the Percona software downloads page Percona LLC, © 2024

1 Select Generic Linux from the drondown

To set up monitoring of your Percona Distribution for MongoDB in PMM, see Set up PMM to monitor MongoDB

2.1.1 Uninstall Percona Distribution for MongoDB

To uninstall Percona Distribution for MongoDB, stop the service and remove the packages using the package manager of your operation system. Optionally, disable *Percona* repository.

see also

- Uninstall Percona Server for MongoDB
- Uninstall Percona Backup for MongoDB

2.2 Repository overview

Percona provides two repositories for Percona Distribution for MongoDB:

Major release repository

Major Release repository (for example, pdmdb-4.2) includes the latest version packages. Whenever a package is updated, the package manager of your operating system detects that and prompts you to update. As long as you update all Distribution packages at the same time, you can ensure that the packages you're using have been tested and verified by *Percona*.

We recommend to install Percona Distribution for MongoDB from the *Major Release repository*

Minor release repository

Minor Release repository includes a particular minor release of the database and all of the packages that were tested and verified to work with that minor release (for example, pdmdb-4.2.20). You may choose to install Percona Distribution for MongoDB from the Minor Release repository if you have decided to standardize on a particular release which has passed rigorous testing procedures and which has been verified to work with your applications. This allows you to deploy to a new host and ensure that you'll be using the same version of all the Distribution packages, even if newer releases exist in other repositories.

The disadvantage of using a Minor Release repository is that you are locked in this particular release. When potentially critical fixes are released in a later minor version of the database, you will not be prompted for an upgrade by the package manager of your operating system. You would need to change the configured repository in order to install the upgrade.

Last update: December 9, 2022 Created: December 9, 2022

2.3 Minor upgrade of Percona Distribution for MongoDB

To receive bug fixes and feature enhancements that come with minor releases, keep your Percona Distribution for MongoDB upgraded to the latest version.

This document describes the upgrade from Percona repositories as the recommended method.

Before the upgrade, we recommend to back up your data in order to be on the safe side if anything goes wrong.

2.3.1 Prerequisites

- 1. Update **percona-release** repository management tool to the latest version. This is required to install new version packages of Percona Distribution for MongoDB.
- 2. Enable the repository.

If you installed Percona Distribution for MongoDB from the Major release repository, this step is optional. The Major release repository automatically includes new version packages and you receive a prompt for an upgrade from the package manager of your operating system.

If you installed Percona Distribution for MongoDB from the Minor release repository, you must enable the new version repository (for example, pdmdb-4.2.9) to upgrade. We recommend to use the setup subcommand:

\$ sudo percona-release setup pdmdb-4.2.9

2.3.2 Procedure

Run the following commands as root or by using the **sudo** command.

Stop the service

Stop Percona Server for MongoDB:

\$ sudo systemctl mongod stop

Stop pbm-agent:

\$ sudo systmectl pbm-agent stop

Install new version packages

Install a new version of Percona Distribution for MongoDB using the package manager of your operating system.

Restart the service

Start Percona Server for MongoDB:

```
$ sudo systemctl mongod start
```

Start **pbm-agent**:

\$ sudo systmectl pbm-agent start

3. Release notes

3.1 Percona Distribution for MongoDB release notes

- Percona Distribution for MongoDB 4.2.25 (2024-02-08)
- Percona Distribution for MongoDB 4.2.24 (2023-03-09)
- Percona Distribution for MongoDB 4.2.23 (2022-11-08)
- Percona Distribution for MongoDB 4.2.22 (2022-09-06)
- Percona Distribution for MongoDB 4.2.21 (2022-06-29)
- Percona Distribution for MongoDB 4.2.20 (2022-05-23)
- Percona Distribution for MongoDB 4.2.19 (2022-03-29)
- Percona Distribution for MongoDB 4.2.18 (2022-01-19)
- Percona Distribution for MongoDB 4.2.17 (2021-10-11)
- Percona Distribution for MongoDB 4.2.15 (2021-07-26)
- Percona Distribution for MongoDB 4.2.14 (2021-05-12)
- Percona Distribution for MongoDB 4.2.13 (2021-04-01)
- Percona Distribution for MongoDB 4.2.12 (2021-02-03)
- Percona Distribution for MongoDB 4.2.11 (2020-12-07)
- Percona Distribution for MongoDB 4.2.10 (2020-11-02)
- Percona Distribution for MongoDB 4.2.9 Update (2020-10-09)
- Percona Distribution for MongoDB 4.2.9 (2020-09-03)
- Percona Distribution for MongoDB 4.2.8 (2020-07-07)
- Percona Distribution for MongoDB 4.2.7 (2020-06-04)
- Percona Distribution for MongoDB 4.2.6 (2020-05-15)

Last update: February 8, 2024 Created: December 9, 2022

3.2 Percona Distribution for MongoDB 4.2.25 (2024-02-08)

Installation

Percona Distribution for MongoDB is a collection of solutions to run and operate your MongoDB efficiently with the data being consistently backed up.

Percona Distribution for MongoDB includes the following components:

- Percona Server for MongoDB is a fully compatible source-available, drop-in replacement for MongoDB.
- *Percona Backup for MongoDB* is a distributed, low-impact solution for achieving consistent backups of MongoDB sharded clusters and replica sets.

This release of Percona Distribution for MongoDB is based on Percona Server for MongoDB 4.2.25-25 and Percona Backup for MongoDB 2.0.4.

3.2.1 Release Highlights

- · Optimized the construction of the balancer's collection distribution status histogram
- Fixed the query planner logic to distinguish parameterized queries in the presence of a partial index that contains logical expressions (\$and , \$or).
- Improved performance of updating the routing table and prevented blocking client requests during refresh for clusters with 1 million of chunks.
- Avoided traversing routing table in balancer split chunk policy
- Fixed the issue that caused the modification of the original ChunkMap vector during the chunk migration and that could lead to data loss. The issue affects MongoDB versions 4.4.25, 5.0.21, 6.0.10 through 6.0.11 and 7.0.1 through 7.0.2. Requires stopping all chunk merge activities and restarting all the binaries in the cluster (both mongod and mongos).

Percona Backup for MongoDB 2.0.4 provides the ability to specify the custom path to mongod binaries to simplify the physical restore process.

3.2.2 Packaging changes

Percona Distribution for MongoDB 4.2.25 is no longer available on Ubuntu 18.04 (Bionic Beaver).

Last update: February 8, 2024 Created: February 8, 2024

3.3 Percona Distribution for MongoDB 4.2.24 (2023-03-09)

Release date	March 9, 2023
Installation	Install Percona Distribution for MongoDB

Percona Distribution for MongoDB is a collection of solutions to run and operate your MongoDB efficiently with the data being consistently backed up.

Percona Distribution for MongoDB includes the following components:

- Percona Server for MongoDB is a fully compatible source-available, drop-in replacement for MongoDB.
- *Percona Backup for MongoDB* is a distributed, low-impact solution for achieving consistent backups of MongoDB sharded clusters and replica sets.

This release of Percona Distribution for MongoDB is based on Percona Server for MongoDB 4.2.24-24 and Percona Backup for MongoDB 2.0.4.

3.3.1 Release Highlights

- Changed the yielding policy of dataSize command to YIELD_AUTO for both when the command is called with estimate:true or false
- Prevented dropping empty path component from elemMatch path during index selection
- Disallowed creating the 'admin', 'local', and 'config' databases with alternative cases in names on sharded clusters
- Made migration properly handle cases when shard key value modification also results to changes in chunk membership

Percona Backup for MongoDB 2.0.4 provides the ability to specify the custom path to mongod binaries to simplify the physical restore process.

Last update: March 9, 2023 Created: March 9, 2023

3.4 Percona Distribution for MongoDB 4.2.23 (2022-11-08)

Release date	November 8, 2022
Installation	Install Percona Distribution for MongoDB

Percona Distribution for MongoDB is a collection of solutions to run and operate your MongoDB efficiently with the data being consistently backed up.

Percona Distribution for MongoDB includes the following components:

- Percona Server for MongoDB is a fully compatible source-available, drop-in replacement for MongoDB.
- *Percona Backup for MongoDB* is a distributed, low-impact solution for achieving consistent backups of MongoDB sharded clusters and replica sets.

This release of Percona Distribution for MongoDB is based on Percona Server for MongoDB 4.2.23-23 and Percona Backup for MongoDB 2.0.2.

3.4.1 Release Highlights

- Data-at-rest encryption using the Key Management Interoperability Protocol (KMIP) is generally available enabling you to use it in your production environment
- \$backupCursor and \$backupCursorExtend aggregation stages functionality is generally available, enabling your application developers to use it for building custom backup solutions.

Note

Percona provides Percona Backup for MongoDB - the open source tool for consistent backups and restores in MongoDB sharded clusters.

- Fixed security vulnerability CVE-2022-3602 for Percona Distribution for MongoDB 4.2.21 and higher installed from tarballs on Ubuntu 22.04.
- Detected and resolved table logging inconsistencies for WiredTiger tables at startup
- Fixed retryable writes on update and delete commands to not execute more than once if chunk is migrated and shard key pattern uses nested fields
- Changed the ExpressionSetUnion::isCommutative() function to return false when a non-simple collation is in place for the \$setUnion aggregation expression
- Prevented TTLMonitor from processing index if expireAfterSeconds value is NaN (Not a Number)

Percona Backup for MongoDB 2.0.x improvements are the following:

- Physical backups and restores are now generally available. This enables you to use them in production environments.
- Data-at-rest encryption is supported for physical backups and restores. This enables you to comply to data security regulations and save time on operating with large data sets.
- By tracking physical restore progress, you have a clear picture of your restore operations and can timely react to any changes or issues.
- Logical backups and restores can now be done selectively. This is a tech preview feature [^1] yet it enables you to work only with the desired subset of data and thereby save time on database maintenance and costs on storage.

Percona Backup for MongoDB 2.0.2 fixes the usability issues for applications operating with Percona Backup for MongoDB by providing the error messages for the status output in the JSON format.

[^1]: Tech Preview Features are not yet ready for enterprise use and are not included in support via SLA. They are included in this release so that users can provide feedback prior to the full release of the feature in a future GA release (or removal of the feature if it is deemed not useful). This functionality can change (APIs, CLIs, etc.) from tech preview to GA.

3.5 Percona Distribution for MongoDB 4.2.22 (2022-09-06)

Release date	September 6, 2022
Installation	Install Percona Distribution for MongoDB

Percona Distribution for MongoDB is a collection of solutions to run and operate your MongoDB efficiently with the data being consistently backed up.

Percona Distribution for MongoDB includes the following components:

- Percona Server for MongoDB is a fully compatible source-available, drop-in replacement for MongoDB.
- *Percona Backup for MongoDB* is a distributed, low-impact solution for achieving consistent backups of MongoDB sharded clusters and replica sets.

This release of Percona Distribution for MongoDB is based on Percona Server for MongoDB 4.2.22-22 and Percona Backup for MongoDB 1.8.1.

3.5.1 Release Highlights

IAportant

With this release, the kmipKeyIdentifier option for data-at-rest encryption using the KMIP protocol (tech preview feature [^1]) is optional. This change serves to improve the user experience with Percona Server for MongoDB as the option names and behavior are similar to those of MongoDB Enterprise. However, if data-at-rest encryption using KMIP is configured, it is the breaking change because the standard upgrade procedure does not work. We do recommend to use the data-at-rest encryption using the KMIP protocol only for testing purposes until it is in the general availability stage.

If you have configured data at rest encryption and it is absolutely necessary to upgrade your MongoDB instance, see the upgrade instructions.

This release of Percona Distribution for MongoDB includes bug fixes and improvements provided by MongoDB and included in Percona Server for MongoDB and Percona Distribution for MongoDB. Among them are the following:

- Fixed an issue that occurred during the attempt to perform the collation-encoding of a document with a missing sort attribute. In this case an invariant is violated and mongod crashes.
- Fixed the TTLMonitor behavior to skip processing TTL indexes if the expireAfterSeconds option value is NaN (Not a Number).
- Changed the behavior of the ShardingTaskExecutorPoolSize parameter to control the connection pool size for config server replica set and shard nodes separately.
- Fixed the issue with bad projection created during dependency analysis due to string order assumption. It resulted in the PathCollision error. The issue is fixed by improving dependency analysis for projections by folding dependencies into ancestor dependencies where possible.

Percona Backup for MongoDB 1.8.1 improvements include the following:

- Fixed the restore failure on a different cluster. Now the UUID of users and system collections are not preserved when replaying the oplog.
- The Point-in-Time recovery chunks display is now consistent in both pbm status and pbm list outputs

3.5.2 Packaging Notes

Debian 9 ("Stretch") is no longer supported.

[^1]: Tech Preview Features are not yet ready for enterprise use and are not included in support via SLA. They are included in this release so that users can provide feedback prior to the full release of the feature in a future GA release (or removal of the feature if it is deemed not useful). This functionality can change (APIs, CLIs, etc.) from tech preview to GA.

3.6 Percona Distribution for MongoDB 4.2.21 (2022-06-29)

Release date	June 29, 2022
Installation	Install Percona Distribution for MongoDB

Percona Distribution for MongoDB is a collection of solutions to run and operate your MongoDB efficiently with the data being consistently backed up.

Percona Distribution for MongoDB includes the following components:

- Percona Server for MongoDB is a fully compatible source-available, drop-in replacement for MongoDB.
- *Percona Backup for MongoDB* is a distributed, low-impact solution for achieving consistent backups of MongoDB sharded clusters and replica sets.

This release of Percona Distribution for MongoDB is based on Percona Server for MongoDB 4.2.21-21 and Percona Backup for MongoDB 1.8.0.

3.6.1 Release Highlights

- This release of Percona Distribution for MongoDB provides the following improvements to the data-at-rest encryption using the Key Management Interoperability Protocol (KMIP) (tech preview feature [^1]):
 - the support of multiple KMIP servers as the failover to your setup
 - the ability to set KMIP client certificate passwords through a flag to simplify the migration from MongoDB Enterprise to *Percona Server for MongoDB*
- Added support for Ubuntu 22.04 for Percona Server for MongoDB and Percona Backup for MongoDB.

The bug fixes, provided by MongoDB and included in Percona Server for MongoDB 4.2.20-20 and Percona Distribution for MongoDB 4.2.20 are the following:

- Extended the getParameter command output with the information about a parameter to be enabled on runtime or only on startup
- Ensured that applying schema validation rules to a non-empty collection prevents chunk migration for the data that existed before these rules were applied.
- Improved the CollectionCatalog workflow by making hashing before taking a lock and adding an API for restoring after yield.
- Fixed the issue with cache eviction causing deadlocks by allowing a transaction to time itself out

Percona Backup for MongoDB 1.8.0 improvements include the following:

- Ability to restore data to a replica set with a different name and configuration. This extends the list of environments compatible for the restore.
- When you use EBS-snapshots or other tools for physical backups, you no longer have to create a mandatory base backup snapshot in Percona Backup for MongoDB as the starting point for Point-in-Time Recovery oplog slicing. This reduces time and effort on managing excessive backups and makes Point-in-time recovery from physical or storage-level backups more straightforward.
- The ability to wait for the backup operation to finish before doing further actions through the session lock. This simplifies the automation of operations with *Percona Backup for MongoDB*.
- Ability to define backup compression level and method in Percona Backup for MongoDB configuration.
- To simplify the *Percona Backup for MongoDB* configuration, the example configuration file is now included in the *Percona Backup for MongoDB* package.

[^1]: Tech Preview Features are not yet ready for enterprise use and are not included in support via SLA. They are included in this release so that users can provide feedback prior to the full release of the feature in a future GA release (or removal of the feature if it is deemed not useful). This functionality can change (APIs, CLIs, etc.) from tech preview to GA.

3.7 Percona Distribution for MongoDB 4.2.20 (2022-05-23)

Release date	May 23, 2022
Installation	Install Percona Distribution for MongoDB

Percona Distribution for MongoDB is a collection of solutions to run and operate your MongoDB efficiently with the data being consistently backed up.

Percona Distribution for MongoDB includes the following components:

- Percona Server for MongoDB is a fully compatible source-available, drop-in replacement for MongoDB.
- *Percona Backup for MongoDB* is a distributed, low-impact solution for achieving consistent backups of MongoDB sharded clusters and replica sets.

This release of Percona Distribution for MongoDB is based on Percona Server for MongoDB 4.2.20-20 and Percona Backup for MongoDB 1.7.0.

Inportant

To make physical backups and restores, the pbm-agent must have the read/write access to the dataDir. If you use the filesystem-based backup storage, the pbm-agent must also have the read/write access to the backup directory. Therefore, starting from version 1.7.0, the user running the pbm-agent is changed from pbm to mongod in Percona Backup for MongoDB packages.

To upgrade Percona Backup for MongoDB to version 1.7.0, do the following:

- 1. Stop the pbm-agent process
- 2. Upgrade new version packages

3. Reload the systemd process to update the unit file with the following command:

- \$ sudo systemctl daemon-reload
- 1. If you have a filesystem-based backup storage, grant read/write permissions to the backup directory to the mongod user.
- 2. Restart the pbm-agent process.

If MongoDB runs under a different user than mongod (the default configuration for Percona Server for MongoDB), use the same user to run the pbm-agent. For filesystem-based storage, grant the read/write permissions to the backup directory for this user.

3.7.1 Release Highlights

The bug fixes, provided by MongoDB and included in Percona Server for MongoDB 4.2.20-20 and Percona Distribution for MongoDB 4.2.20 are the following:

- Support of the master key rotation for data encrypted using the Keys Management Interoperability Protocol (KMIP) protocol (tech preview feature [^1]). This improvement allows users to comply with regulatory standards for data security.
- Abort the WiredTiger transaction after releasing Client lock to avoid deadlocks.
- · Check if the host has cgroups v2 enabled and read the memory limits according to that.
- Return the shutdown error as the top level error when batch writing command fails due to mongos shutdown.
- Fixed the double free state for the DocumentSource::optimizeAt() pipeline by making sure all pointers are in place before disposing the pipeline prefix.

Percona Backup for MongoDB 1.7.0 improvements include the following:

- Support for physical backups in *Percona Server for MongoDB* starting from versions 4.2.15–16 and 4.4.6-8 and higher. Physical backups drastically speed up backup and restore performance for large databases (several terabytes). This is a technical preview feature [^1].
- Oplog replay from the arbitrary start time. This reduces Recovery Point Objective (RPO) when database is recovered from physical or storage-level backups.
- Ability to configure compression method and level for point-in-time recovery chunks and compression level for backups.
- Ability to configure the number of S3 multipart upload chunks to comply with various S3-compatible storage provider requirements.
- Ability to configure the number of upload retries. This facilitates data upload in case of unstable network connection.

[^1]: Tech Preview Features are not yet ready for enterprise use and are not included in support via SLA. They are included in this release so that users can provide feedback prior to the full release of the feature in a future GA release (or removal of the feature if it is deemed not useful). This functionality can change (APIs, CLIs, etc.) from tech preview to GA.

3.8 Percona Distribution for MongoDB 4.2.19 (2022-03-29)

Release date	March 29, 2022
Installation	Install Percona Distribution for MongoDB

Percona Distribution for MongoDB is a collection of solutions to run and operate your MongoDB efficiently with the data being consistently backed up.

Percona Distribution for MongoDB includes the following components:

- Percona Server for MongoDB is a fully compatible source-available, drop-in replacement for MongoDB.
- *Percona Backup for MongoDB* is a distributed, low-impact solution for achieving consistent backups of MongoDB sharded clusters and replica sets.

This release of Percona Distribution for MongoDB is based on Percona Server for MongoDB 4.2.19-19 and Percona Backup for MongoDB 1.6.1.

3.8.1 Release Highlights

The bug fixes, provided by MongoDB and included in Percona Server for MongoDB 4.2.19-19 and Percona Distribution for MongoDB 4.2.19 are the following:

- Support of Keys Management Interoperability Protocol (KMIP). Thus, users can store encryption keys in their favorite KMIP-compatible key manager to set up encryption at rest. This is a tech preview feature [^1].
- Added the repairShardedCollectionChunksHistory command to restore history fields for some chunks. This aims to fix broken snapshot reads and distributed transactions.
- Fixed an issue with transaction coordinator crashing if the transaction is aborted when attempting to commit a transaction.
- Fixed the issue with the distributed transactions being in the prolonged prepared state that was caused by the blocking of acquiring the WiredTiger write tickets by the transaction coordinator.
- Fixed an issue with an empty array for the \$nin statement.

[^1]: Tech Preview Features are not yet ready for enterprise use and are not included in support via SLA. They are included in this release so that users can provide feedback prior to the full release of the feature in a future GA release (or removal of the feature if it is deemed not useful). This functionality can change (APIs, CLIs, etc.) from tech preview to GA.

3.9 Percona Distribution for MongoDB 4.2.18 (2022-01-19)

Release date	January 19, 2022
Installation	Install Percona Distribution for MongoDB

Percona Distribution for MongoDB is a collection of solutions to run and operate your MongoDB efficiently with the data being consistently backed up.

Percona Distribution for MongoDB includes the following components:

- Percona Server for MongoDB is a fully compatible source-available, drop-in replacement for MongoDB.
- *Percona Backup for MongoDB* is a distributed, low-impact solution for achieving consistent backups of MongoDB sharded clusters and replica sets.

This release of Percona Distribution for MongoDB is based on Percona Server for MongoDB 4.2.18-18 and Percona Backup for MongoDB 1.6.1.

3.9.1 Release Highlights

The bug fixes, provided by MongoDB and included in Percona Server for MongoDB 4.2.18-18 and Percona Distribution for MongoDB 4.2.18 are the following:

- Added the SetAllowMigrationsCommand command that prevents the balancer to migrate chunks on shards.
- Added a flag for the config server that prevents new migrations to start and ongoing migrations to commit.
- Improved the duplicate key handler behavior if the exact key already exists in the table. This fixes availability loss during the index build that was caused by checking many false duplicates.
- Added periodic clean up of logical sessions cache on arbiters

Percona Backup for MongoDB 1.6.1 improvements include the following:

- Improved backup and point-in-time recovery routines alignment by using sequential delete-pitr/ install-backup operations instead of in-memory backup intent. This fixes the inability of a backup to start.
- Added support for automated access to S3 buckets using an EC2 instance profile. When Percona Backup for MongoDB is deployed using an EC2 instance, EC2 environment variables and metadata are used for S3 authentication, saving you from explicitly specifying S3 credentials in the Percona Backup for MongoDB configuration file. This comes handy for architectures deployed using the services like Amazon EC2, kiam, kube2iam or irsa.
- Extended logging for pbm-agents . This improves user experience with Percona Backup for MongoDB.

3.10 Percona Distribution for MongoDB 4.2.17 (2021-10-11)

Release date	October 11, 2021
Installation	Install Percona Distribution for MongoDB

Percona Distribution for MongoDB is a collection of solutions to run and operate your MongoDB efficiently with the data being consistently backed up.

Percona Distribution for MongoDB includes the following components:

- Percona Server for MongoDB is a fully compatible source-available, drop-in replacement for MongoDB.
- *Percona Backup for MongoDB* is a distributed, low-impact solution for achieving consistent backups of MongoDB sharded clusters and replica sets.

This release of Percona Distribution for MongoDB is based on Percona Server for MongoDB 4.2.17-17 and Percona Backup for MongoDB 1.6.0.

3.10.1 Release Highlights

The bug fixes, provided by MongoDB and included in Percona Server for MongoDB 4.2.17-17 and Percona Distribution for MongoDB 4.2.17 are the following:

- The libsasl2 dependencies are added for DEB-based operating systems to enable GSSAPI and Kerberos authentication to work out-of-the box after installing MongoDB (SERVER-54729)
- The number of modify updates in WiredTiger is now limited to prevent performance issues (WT-7776)
- Errors related to proxy connections receive new error codes so that they don't change the behavior of clients' drivers (SERVER-50549)
- Pre-warming of connection pools in mongos tier (SERVER-44152)
- Improvements to Secondary slowdowns or hangs (SERVER-34938)

Percona Backup for MongoDB 1.6.0 improvements include the following:

- Support for Percona Server for MongoDB and MongoDB Community 5.0
- Point-in-time recovery enhancements: ability to restore from any previous snapshot and configurable span of oplog events
- JSON output for PBM commands to simplify interfacing PBM with applications

Last update: January 3, 2023 Created: December 9, 2022

3.11 Percona Distribution for MongoDB 4.2.15 (2021-07-26)

Release date	July 26, 2021
Installation	Install Percona Distribution for MongoDB

Percona Distribution for MongoDB is a collection of solutions to run and operate your MongoDB efficiently with the data being consistently backed up.

Percona Distribution for MongoDB includes the following components:

- Percona Server for MongoDB is a fully compatible source-available, drop-in replacement for MongoDB.
- *Percona Backup for MongoDB* is a distributed, low-impact solution for achieving consistent backups of MongoDB sharded clusters and replica sets.

This release of Percona Distribution for MongoDB is based on Percona Server for MongoDB 4.2.15-16 and Percona Backup for MongoDB 1.5.0.

3.12 Percona Distribution for MongoDB 4.2.14 (2021-05-12)

Release date	May 12, 2021
Installation	Install Percona Distribution for MongoDB

Percona Distribution for MongoDB is a collection of solutions to run and operate your MongoDB efficiently with the data being consistently backed up.

Percona Distribution for MongoDB includes the following components:

- Percona Server for MongoDB is a fully compatible source-available, drop-in replacement for MongoDB.
- *Percona Backup for MongoDB* is a distributed, low-impact solution for achieving consistent backups of MongoDB sharded clusters and replica sets.

This release of Percona Distribution for MongoDB is based on Percona Server for MongoDB 4.2.14-15 and Percona Backup for MongoDB 1.5.0.

3.13 Percona Distribution for MongoDB 4.2.13 (2021-04-01)

Release date	April 1, 2021
Installation	Install Percona Distribution for MongoDB

Percona Distribution for MongoDB is a collection of solutions to run and operate your MongoDB efficiently with the data being consistently backed up.

Percona Distribution for MongoDB includes the following components:

- Percona Server for MongoDB is a fully compatible source-available, drop-in replacement for MongoDB.
- *Percona Backup for MongoDB* is a distributed, low-impact solution for achieving consistent backups of MongoDB sharded clusters and replica sets.

This release of Percona Distribution for MongoDB is based on Percona Server for MongoDB 4.2.13-14 and Percona Backup for MongoDB 1.4.1.

3.14 Percona Distribution for MongoDB 4.2.12 (2021-02-03)

Release date	February 3, 2021
Installation	Install Percona Distribution for MongoDB

Percona Distribution for MongoDB is a collection of solutions to run and operate your MongoDB efficiently with the data being consistently backed up.

Percona Distribution for MongoDB includes the following components:

- Percona Server for MongoDB is a fully compatible source-available, drop-in replacement for MongoDB.
- *Percona Backup for MongoDB* is a distributed, low-impact solution for achieving consistent backups of MongoDB sharded clusters and replica sets.

This release of Percona Distribution for MongoDB is based on Percona Server for MongoDB 4.2.12–13 and Percona Backup for MongoDB 1.4.1.

3.15 Percona Distribution for MongoDB 4.2.11 (2020-12-07)

Release date	December 7, 2020
Installation	Install Percona Distribution for MongoDB

Percona Distribution for MongoDB is a collection of solutions to run and operate your MongoDB efficiently with the data being consistently backed up.

Percona Distribution for MongoDB includes the following components:

- Percona Server for MongoDB is a fully compatible source-available, drop-in replacement for MongoDB.
- *Percona Backup for MongoDB* is a distributed, low-impact solution for achieving consistent backups of MongoDB sharded clusters and replica sets.

This release of Percona Distribution for MongoDB is based on Percona Server for MongoDB 4.2.11-12 and Percona Backup for MongoDB 1.3.4.

3.16 Percona Distribution for MongoDB 4.2.10 (2020-11-02)

Release date	November 2, 2020
Installation	Install Percona Distribution for MongoDB

Percona Distribution for MongoDB is a collection of solutions to run and operate your MongoDB efficiently with the data being consistently backed up.

Percona Distribution for MongoDB includes the following components:

- Percona Server for MongoDB is a fully compatible source-available, drop-in replacement for MongoDB.
- *Percona Backup for MongoDB* is a distributed, low-impact solution for achieving consistent backups of MongoDB sharded clusters and replica sets.

This release of Percona Distribution for MongoDB is based on Percona Server for MongoDB 4.2.10-11 and Percona Backup for MongoDB 1.3.2.

3.17 Percona Distribution for MongoDB 4.2.9 Update (2020-10-09)

Release date	October 9, 2020
Installation	Install Percona Distribution for MongoDB

Percona Distribution for MongoDB is a collection of solutions to run and operate your MongoDB efficiently with the data being consistently backed up.

Percona Distribution for MongoDB includes the following components:

- Percona Server for MongoDB is a fully compatible source-available, drop-in replacement for MongoDB.
- *Percona Backup for MongoDB* is a distributed, low-impact solution for achieving consistent backups of MongoDB sharded clusters and replica sets.

This update to the Percona Distribution for MongoDB fixes the security vulnerability CVE-2020-26542 and is based on Percona Server for MongoDB 4.2.9-10 and Percona Backup for MongoDB 1.3.1.

3.18 Percona Distribution for MongoDB 4.2.9 (2020-09-03)

Release date	September 3, 2020
Installation	Install Percona Distribution for MongoDB

Percona Distribution for MongoDB is a collection of solutions to run and operate your MongoDB efficiently with the data being consistently backed up.

Percona Distribution for MongoDB includes the following components:

- Percona Server for MongoDB is a fully compatible source-available, drop-in replacement for MongoDB.
- *Percona Backup for MongoDB* is a distributed, low-impact solution for achieving consistent backups of MongoDB sharded clusters and replica sets.

This release of Percona Distribution for MongoDB is based on Percona Server for MongoDB 4.2.9-9 and Percona Backup for MongoDB 1.3.1.

3.19 Percona Distribution for MongoDB 4.2.8 (2020-07-07)

Release date	July 7, 2020
Installation	Install Percona Distribution for MongoDB

Percona Distribution for MongoDB is a collection of solutions to run and operate your MongoDB efficiently with the data being consistently backed up.

Percona Distribution for MongoDB includes the following components:

- Percona Server for MongoDB is a fully compatible source-available, drop-in replacement for MongoDB.
- *Percona Backup for MongoDB* is a distributed, low-impact solution for achieving consistent backups of MongoDB sharded clusters and replica sets.

This release of Percona Distribution for MongoDB is based on Percona Server for MongoDB 4.2.8-8 and Percona Backup for MongoDB 1.2.0.

3.20 Percona Distribution for MongoDB 4.2.7 (2020-06-04)

Release date	June 4, 2020
Installation	Install Percona Distribution for MongoDB

Percona Distribution for MongoDB is a collection of solutions to run and operate your MongoDB efficiently with the data being consistently backed up.

Percona Distribution for MongoDB includes the following components:

- Percona Server for MongoDB is a fully compatible source-available, drop-in replacement for MongoDB.
- *Percona Backup for MongoDB* is a distributed, low-impact solution for achieving consistent backups of MongoDB sharded clusters and replica sets.

This release of Percona Distribution for MongoDB is based on Percona Server for MongoDB 4.2.7-7 and Percona Backup for MongoDB 1.2.0.

3.21 Percona Distribution for MongoDB 4.2.6 (2020-05-15)

Release date	May 15, 2020
Installation	Install Percona Distribution for MongoDB

Percona Distribution for MongoDB is a collection of solutions to run and operate your MongoDB efficiently with the data being consistently backed up.

Percona Distribution for MongoDB includes the following components:

- Percona Server for MongoDB is a fully compatible source-available, drop-in replacement for MongoDB.
- *Percona Backup for MongoDB* is a distributed, low-impact solution for achieving consistent backups of MongoDB sharded clusters and replica sets.

This release of Percona Distribution for MongoDB is based on Percona Server for MongoDB 4.2.6-6 and Percona Backup for MongoDB 1.2.0.

4. Copyright and licensing information

4.1 Documentation licensing

Percona Distribution for MongoDB documentation is (C)2009-2023 Percona LLC and/or its affiliates and is distributed under the Creative Commons Attribution 4.0 International License.

Last update: June 28, 2023 Created: December 9, 2022

5. Trademark Policy

This Trademark Policy is to ensure that users of Percona-branded products or services know that what they receive has really been developed, approved, tested and maintained by Percona. Trademarks help to prevent confusion in the marketplace, by distinguishing one company's or person's products and services from another's.

Percona owns a number of marks, including but not limited to Percona, XtraDB, Percona XtraDB, XtraBackup, Percona Server, and Percona Live, plus the distinctive visual icons and logos associated with these marks. Both the unregistered and registered marks of Percona are protected.

Use of any Percona trademark in the name, URL, or other identifying characteristic of any product, service, website, or other use is not permitted without Percona's written permission with the following three limited exceptions.

First, you may use the appropriate Percona mark when making a nominative fair use reference to a bona fide Percona product.

Second, when Percona has released a product under a version of the GNU General Public License ("GPL"), you may use the appropriate Percona mark when distributing a verbatim copy of that product in accordance with the terms and conditions of the GPL.

Third, you may use the appropriate Percona mark to refer to a distribution of GPL-released Percona software that has been modified with minor changes for the sole purpose of allowing the software to operate on an operating system or hardware platform for which Percona has not yet released the software, provided that those third party changes do not affect the behavior, functionality, features, design or performance of the software. Users who acquire this Percona-branded software receive substantially exact implementations of the Percona software.

Percona reserves the right to revoke this authorization at any time in its sole discretion. For example, if Percona believes that your modification is beyond the scope of the limited license granted in this Policy or that your use of the Percona mark is detrimental to Percona, Percona will revoke this authorization. Upon revocation, you must immediately cease using the applicable Percona mark. If you do not immediately cease using the Percona mark upon revocation, Percona may take action to protect its rights and interests in the Percona mark. Percona does not grant any license to use any Percona mark for any other modified versions of Percona software; such use will require our prior written permission.

Neither trademark law nor any of the exceptions set forth in this Trademark Policy permit you to truncate, modify or otherwise use any Percona mark as part of your own brand. For example, if XYZ creates a modified version of the Percona Server, XYZ may not brand that modification as "XYZ Percona Server" or "Percona XYZ Server", even if that modification otherwise complies with the third exception noted above.

In all cases, you must comply with applicable law, the underlying license, and this Trademark Policy, as amended from time to time. For instance, any mention of Percona trademarks should include the full trademarked name, with proper spelling and capitalization, along with attribution of ownership to Percona Inc. For example, the full proper name for XtraBackup is Percona XtraBackup. However, it is acceptable to omit the word "Percona" for brevity on the second and subsequent uses, where such omission does not cause confusion.

In the event of doubt as to any of the conditions or exceptions outlined in this Trademark Policy, please contact trademarks@percona.com for assistance and we will do our very best to be helpful.

Last update: June 28, 2023

Created: December 9, 2022