



PERCONA

Distribution for MongoDB Documentation 5.0

5.0.29 (September 26, 2024)

Percona Technical Documentation Team

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Table of contents

1. Percona Distribution for MongoDB 5.0 Documentation	3
1.1 Get expert help	3
2. Release Notes	4
2.1 Release Notes	4
2.2 Percona Distribution for MongoDB 5.0.29 (2024-09-26)	4
2.3 Percona Distribution for MongoDB 5.0.28 (2024-08-08)	6
2.4 Percona Distribution for MongoDB 5.0.27 (2024-06-19)	8
2.5 Percona Distribution for MongoDB 5.0.26 (2024-04-09)	9
2.6 Percona Distribution for MongoDB 5.0.24 (2024-02-01)	11
2.7 Percona Distribution for MongoDB 5.0.23 (2023-12-21)	12
2.8 Percona Distribution for MongoDB* 5.0.14 (2022-12-08)	13
2.9 Percona Distribution for MongoDB 5.0.5 (2021-12-28)	14
3. Installation and Upgrade	17
3.1 Install Percona Distribution for MongoDB	17
3.2 Repository overview	20
3.3 Minor upgrade of Percona Distribution for MongoDB	21
4. Reference	23
4.1 Copyright and licensing information	23
4.2 Trademark policy	23

1. Percona Distribution for MongoDB 5.0 Documentation

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.

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Last update: March 16, 2023

Created: December 9, 2022

2. Release Notes

2.1 Release Notes

- [Percona Distribution for MongoDB 5.0.29 \(2024-09-26\)](#)
- [Percona Distribution for MongoDB 5.0.28 \(2024-08-08\)](#)
- [Percona Distribution for MongoDB 5.0.27 \(2024-06-19\)](#)
- [Percona Distribution for MongoDB 5.0.26 \(2024-04-09\)](#)
- [Percona Distribution for MongoDB 5.0.24 \(2024-02-01\)](#)
- [Percona Distribution for MongoDB 5.0.22 \(2023-11-09\)](#)
- [Percona Distribution for MongoDB 5.0.21 \(2023-10-12\)](#)
- [Percona Distribution for MongoDB 5.0.20 \(2023-09-07\)](#)
- [Percona Distribution for MongoDB 5.0.19 \(2023-08-10\)](#)
- [Percona Distribution for MongoDB 5.0.18 \(2023-06-01\)](#)
- [Percona Distribution for MongoDB 5.0.17 \(2023-05-04\)](#)
- [Percona Distribution for MongoDB 5.0.15 \(2023-03-16\)](#)
- [Percona Distribution for MongoDB 5.0.14 \(2022-12-08\)](#)
- [Percona Distribution for MongoDB 5.0.13 \(2022-10-12\)](#)
- [Percona Distribution for MongoDB 5.0.11 \(2022-09-01\)](#)
- [Percona Distribution for MongoDB 5.0.10 \(2022-08-09\)](#)
- [Percona Distribution for MongoDB 5.0.9 \(2022-06-20\)](#)
- [Percona Distribution for MongoDB 5.0.8 \(2022-05-10\)](#)
- [Percona Distribution for MongoDB 5.0.7 \(2022-04-20\)](#)
- [Percona Distribution for MongoDB 5.0.6 \(2022-02-10\)](#)
- [Percona Distribution for MongoDB 5.0.5 \(2021-12-28\)](#)

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Last update: September 26, 2024

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2.2 Percona Distribution for MongoDB 5.0.29 (2024-09-26)

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Percona Distribution for MongoDB is a freely available MongoDB database alternative, giving you a single solution that combines enterprise components from the open source community, designed and tested to work together. The aim of Percona Distribution for MongoDB is to enable you to run and operate your MongoDB efficiently with the data being consistently backed up.

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This release of Percona Distribution for MongoDB is based on [Percona Server for MongoDB 5.0.29-25](#) and [Percona Backup for MongoDB 2.6.0](#).

2.2.1 Release Highlights

Percona Server for MongoDB improvements

PREVENT MASTER ENCRYPTION KEY LOSS ON THE VAULT SERVER

Before Percona Server for MongoDB puts a new master encryption key to the Vault server as the versioned secret, it now checks if the secret's version reached the defined maximum (10 by default). This prevents the loss of the old secret and the master encryption key it stores on the Vault server.

Make sure Percona Server for MongoDB has read permissions for the secret's metadata and the secrets engine configuration. To learn more, refer to the [documentation](#).

UPSTREAM FIXES

The bug fixes and improvements provided by MongoDB and included in Percona Distribution for MongoDB are the following:

- Improved inserting unique index keys behavior by preventing an oplog application to check for duplicates on unique indexes except for when building an index and inserting into the `_id` index.
- Fixed the deadlock between external abort and internal abort on index build.
- Provided a way for external tools to insert/update/upsert documents without triggering the "replace Timestamp(0,0) with current time" behavior by adding the "bypassEmptyTsReplacement" parameter to those operations.
- Avoided marking the page dirty for empty pages to prevent unnecessary page reconciliation.

Percona Backup for MongoDB 2.6.0 improvements

MULTIPLE STORAGES FOR BACKUPS AND RESTORES

You can now define multiple storages for making backups and instruct PBM on what storage to save a backup: on the main or on any additional (external) one. This ability helps you save on data transfer costs when using cloud storage, as well as enables you to follow closely with the requirements of your organization's backup policy.

To learn more, read [Multiple storages for backups](#).

ADJUST NODE PRIORITY FOR POINT-IN-TIME RECOVERY OPCODE SLICING

You can now redefine node priorities not only for making backups but also for point-in-time recovery oplog slices. For example, you can instruct PBM to save oplog slices either from a dedicated node or from nodes in the geographically closest location, thus reducing network latency.

See the [Adjust node priority for oplog slices](#) section for guidelines.

ADDITIONAL CONTROL OVER PBM COMMAND EXECUTION

You can now configure the waiting time for a command execution by passing the `--wait-time` flag for the following commands:

- `pbm config -force-resync -wait -wait-time="5m"`
- `pbm backup -wait -wait-time="5m"`
- `pbm restore -wait -wait-time="5m"`
- `pbm oplog-replay -wait -wait-time="5m"`
- `pbm profile add -sync -wait -wait-time="5m"`
- `pbm profile remove -wait -wait-time="5m"`
- `pbm profile sync -wait -wait-time="5m"`
- `pbm delete-pitr -older-than -wait -wait-time="5m"`
- `pbm cleanup -older-than -wait -wait-time="5m"`

This way you have more control over the PBM operation. This enhancement also improves the error logging.

SNAPSHOT-BASED PHYSICAL BACKUPS ARE GENERALLY AVAILABLE

With [snapshot-based physical backups](#) now generally available, you can use this functionality in production environments and enjoy all the benefits of faster restores from snapshots with almost immediate access to data.

DROPPED SUPPORT OF MONGODB 4.4

Percona Backup for MongoDB drops support of MongoDB 4.4. Existing functionality in Percona Backup for MongoDB remains compatible with MongoDB 4.4 and Percona Server for MongoDB 4.4; however, further enhancements and bug fixes are no longer tested against this version.

2.2.2 Packaging Changes

- Percona Distribution for MongoDB 5.0.29 is no longer supported for Debian 10 and Red Hat Enterprise 7 and derivatives as these operating systems reached End-Of-Life.

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Last update: September 26, 2024

Created: September 26, 2024

2.3 Percona Distribution for MongoDB 5.0.28 (2024-08-08)

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This release of Percona Distribution for MongoDB is based on [Percona Server for MongoDB 5.0.28-24](#) and [Percona Backup for MongoDB 2.5.0](#).

2.3.1 Release Highlights

Percona Server for MongoDB improvements

ENHANCED TELEMETRY FOR BETTER PRODUCT USAGE REPORTING

The enhanced telemetry feature provides comprehensive information about how it works, its components and metrics as well as updated methods how to disable telemetry. Read more in [Telemetry on Percona Server for MongoDB](#)

REDUCE MEAN TIME TO RESOLVE (MTTR) COMPROMISED ENCRYPTION KEY INCIDENTS IN KMIP

Starting with this release, Percona Server for MongoDB automatically activates all new master encryption keys at startup and periodically checks (polls) their status in a KMIP server. If a master encryption key for a node transitions to the state other than Active, the node reports an error and shuts down. This method allows security engineers to quickly identify which nodes require out-of-schedule master key rotation, such as in the case of compromised keys, without needing to rotate keys for the entire cluster.

Learn more about key state polling from [documentation](#)

EASIER DEPENDENCY MANAGEMENT WITH THINNER TARBALLS

Tarballs are now available for each supported operating system individually and no longer include built-in libraries. This change reduces the tarball download size and increases their security by simplifying updates for required dependencies.

UPSTREAM FIXES

The bug fixes and improvements provided by MongoDB and included in Percona Distribution for MongoDB are the following:

- Prevented shutdown command from hanging
- Improved handling of queries with \$elemMatch with empty path in plan enumerator in case an index is used on another predicate of the query
- Fixed performance issues by not copying a JavaScript “scope” object if a cached JsExecution object already exists in a query thread
- Fixed the issue with incorrect handling of ‘unique’ and ‘sparse’ parameters in index signature when comparing indexes.

Percona Backup for MongoDB 2.5.0 improvements

- The ability to restore the desired subset of [custom databases with users and roles](#) created in them. This is useful for deployments where each user has an individual database and authenticates against it.

- Previous versions of PBM required that `readConcern` and `writeConcern` are set to `majority` in MongoDB. In Percona Backup for MongoDB 2.5.0 you can now explicitly override this behavior, and thus, ensure backups in clusters configured to operate without the majority or lost it for some reason.

2.3.2 Packaging Changes

- Percona Distribution for MongoDB 5.0.28 is available on Ubuntu 24.04 (Noble Numbat)

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Last update: August 8, 2024

Created: August 8, 2024

2.4 Percona Distribution for MongoDB 5.0.27 (2024-06-19)

Installation

Percona Distribution for MongoDB is a freely available MongoDB database alternative, giving you a single solution that combines enterprise components from the open source community, designed and tested to work together. The aim of Percona Distribution for MongoDB is to enable you to run and operate your MongoDB efficiently with the data being consistently backed up.

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This release of Percona Distribution for MongoDB is based on [Percona Server for MongoDB 5.0.27-23](#) and [Percona Backup for MongoDB 2.5.0](#).

2.4.1 Release Highlights

The bug fixes and improvements provided by MongoDB and included in Percona Server for MongoDB are the following:

- Changed the default value of `internalInsertMaxBatchSize` to 64 to avoid replication lag if the insert operations are slow
- Fixed the issue with the aggregation pipeline in MongoDB when using the `$lookup` stage with a time series foreign collection using a correlated predicate
- Explicitly stated that the missing `w` field from write concern object will be filled with default write concern value
- Fixed the bug with the replaying oplog updates during mongosync by preserving the zero-valued timestamps
- Fixed the issue with resumable index build sorter files not to be synced on shutdown

Percona Backup for MongoDB 2.5.0 improvements are the following:

- The ability to restore the desired subset of [custom databases with users and roles](#) created in them. This is useful for deployments where each user has an individual database and authenticates against it.
- Previous versions of PBM required that `readConcern` and `writeConcern` are set to `majority` in MongoDB. In Percona Backup for MongoDB 2.5.0 you can now explicitly override this behavior, and thus, ensure backups in clusters configured to operate without the majority or lost it for some reason.

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Last update: June 19, 2024

Created: June 19, 2024

2.5 Percona Distribution for MongoDB 5.0.26 (2024-04-09)

Installation

Percona Distribution for MongoDB is a freely available MongoDB database alternative, giving you a single solution that combines enterprise components from the open source community, designed and tested to work together. The aim of Percona Distribution for MongoDB is to enable you to run and operate your MongoDB efficiently with the data being consistently backed up.

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This release of Percona Distribution for MongoDB is based on [Percona Server for MongoDB 5.0.26-22](#) and [Percona Backup for MongoDB 2.4.1](#).

Warning

Due to [CVE-2024-1351](#), in all MongoDB versions prior to 4.4.29, the `mongod` server allows incoming connections to skip peer certificate validation which results in untrusted connections to succeed. This issue occurs when the `mongod` is started with TLS enabled (`net.tls.mode` set to `allowTLS`, `preferTLS`, or `requireTLS`) and without a `net.tls.CAFile` configured. For details, see [SERVER-72839](#).

The issue is fixed upstream in versions 4.4.29, 5.0.25, 6.0.14 and 7.0.6 and in Percona Server for MongoDB 4.4.29-28, 5.0.26-22, 6.0.14-11 and 7.0.7-4. Now, configuring MongoDB to use TLS requires specifying the value for the `--tlsCAFile` flag, the `net.tls.CAFile` configuration option, or the `tlsUseSystemCA` parameter.

2.5.1 Release Highlights

The bug fixes and improvements provided by MongoDB and included in Percona Server for MongoDB are the following:

- Fixed the issue with the exceptions thrown while generating command response leading to network error by avoiding closing the connections during the command processing.
- Changed the requirement to use exclusive write lock to intent exclusive write lock that doesn't prevent reading from a collection during the `$out` stage when running the rename collection command.
- Fixed the issue with the match expression optimization for the `$or` to an `$in` rewrite by avoiding creating directly nested `$or`.
- Fixed the issue with the resharding command failing to persist chunk metadata by adding a validation that the user provided zone range doesn't include `$`-prefixed fields.
- Fixed the issue with missing peer certificate validation if neither CAFile nor clusterCAFile is provided.
- Extended the `collMod` command to check and fix invalid boolean index options.
- Fixed the issue with multi-document transactions missing documents when the movePrimary operation runs concurrently by detecting placement conflicts in multi-document transactions.
- Added an index on the process field for the `config.locks` collection to ensure update operations on it are completed even in heavy loaded deployments.
- Removed the unstable historical versions at the end of rollback to stable.

Percona Backup for MongoDB 2.4.x improvements are the following:

- Ability to [delete backup snapshots of a specific type](#). For example, you can delete only logical backups which you might have created and no longer need. You can also check what exactly will be deleted with the new `--dry-run` flag. This improvement helps you better meet the organization's backup policy and improves your experience with cleaning up outdated data.
- Point-in-time recovery oplog slicing is now running in parallel with backup snapshots. This ensures that you can make a [point-in-time recovery](#) to any timestamp from very large backups that take hours to make.
- Fixed the issue with failing incremental backups. It was caused by the backup metadata document reaching the maximum size limit of 16MB. The issue is fixed by introducing the new approach of handling the metadata document: it no longer contains the list of backup files which is now stored separately on the storage and is read by PBM on demand. The new metadata handling approach applies to physical, incremental and snapshot-based backups.

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2.5.2 Get expert help

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Last update: June 19, 2024

Created: April 9, 2024

2.6 Percona Distribution for MongoDB 5.0.24 (2024-02-01)

Installation

Percona Distribution for MongoDB is a freely available MongoDB database alternative, giving you a single solution that combines enterprise components from the open source community, designed and tested to work together. The aim of Percona Distribution for MongoDB is to enable you to run and operate your MongoDB efficiently with the data being consistently backed up.

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This release of Percona Distribution for MongoDB is based on [Percona Server for MongoDB 5.0.24-21](#) and [Percona Backup for MongoDB 2.3.1](#).

2.6.1 Release Highlights

The bug fixes and improvements provided by MongoDB and included in Percona Server for MongoDB are the following:

- Improved shard key index error messages by adding detailed information about an invalid index.
- Fixed the issue with data and ShardVersion mismatch on sharded multi-document transactions by exposing the `maxValidAfter` timestamp alongside the `shardVersion`
- Fixed the issue with infinite loop during plan enumeration triggered by the `$or` queries

Percona Backup for MongoDB 2.3.1 enhancements include the following:

- Support for Percona Server for MongoDB 7.0.x
- The ability to define custom endpoints when using Microsoft Azure Blob Storage for backups
- Improved PBM Docker image to allow making physical backups with the shared `mongodb` data volume
- Updated Golang libraries that include fixes for the security vulnerability CVE-2023-39325.

2.6.2 Packaging changes

Percona Distribution for MongoDB 5.0.24 is no longer available on Ubuntu 18.04 (Bionic Beaver).

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2.6.3 Get expert help

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Last update: February 5, 2024

Created: December 21, 2023

2.7 Percona Distribution for MongoDB 5.0.23 (2023-12-21)

Installation

Percona Distribution for MongoDB is a freely available MongoDB database alternative, giving you a single solution that combines enterprise components from the open source community, designed and tested to work together. The aim of Percona Distribution for MongoDB is to enable you to run and operate your MongoDB efficiently with the data being consistently backed up.

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This release of Percona Distribution for MongoDB is based on [Percona Server for MongoDB 5.0.23-20](#) and [Percona Backup for MongoDB 2.3.1](#).

2.7.1 Release Highlights

The bug fixes and improvements provided by MongoDB and included in Percona Server for MongoDB are the following:

- [AWS IAM authentication](#) is now generally available, enabling you to use this functionality in production environments.
- Improved the Primary Only Service interface to expose the primary state upon lookup
- Ensured that shard primaries commit a majority write before using new routing information from the config server.
- Fixed the rollback-to-stable behavior to read the newest transaction value only when it exists in the checkpoint.
- Hid expected eviction failures from the application and don't rollback in case of errors

Percona Backup for MongoDB 2.3.1 enhancements include the following:

- Support for Percona Server for MongoDB 7.0.x
- The ability to define custom endpoints when using Microsoft Azure Blob Storage for backups
- Improved PBM Docker image to allow making physical backups with the shared mongod data volume
- Updated Golang libraries that include fixes for the security vulnerability CVE-2023-39325.

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Last update: December 21, 2023

Created: December 21, 2023

2.8 Percona Distribution for MongoDB* 5.0.14 (2022-12-08)

Release date: **December 8, 2022**

Installation: [Installing Percona Distribution for MongoDB](#)

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This release of [pdmdb] is based on [Percona Server for MongoDB 5.0.14-12](#) and [Percona Backup for MongoDB 2.0.2](#).

2.8.1 Release Highlights

With this release, ``$backupCursor` and `$backupCursorExtend` aggregation stages is now generally available, enabling you to use it for building custom backup solutions.

The bug fixes and improvements provided by MongoDB and included in Percona Server for MongoDB 5.0.14-12 are the following:

- Fixed the bug where an unexpected behavior could negatively impact existing TTL indexes with improper configuration and could cause the sudden expiration of TTL-indexed documents in a collection. This sudden expiration could cause data to be aged out prior than planned and could negatively impact write performance.

This bug involves TTL indexes with the `expireAfterSeconds` value of NaN (not-a-number). The TTL indexes are treated as 0 instead of NaN and that resulted in the sudden expiration of TTL-indexed documents in a collection. The bug affects MongoDB 5.0.0 through 5.0.13 and MongoDB 6.0.0 through 6.0.1.

It could be hit on MongoDB 4.4/4.2 when initially syncing from a 5.0.0-5.0.13 or 6.0.0-6.0.1 node and on MongoDB 5.0.0-5.0.13 when restoring from a `mongodump` of 4.2 / 4.4 collection or initially syncing from a 4.2/4.4 node that has a TTL configured with `expireAfterSeconds: NaN`.

The issue is fixed upstream in version 5.0.14 and 6.0.2. As the general recommendation, avoid using `expireAfterSeconds: NaN` as a configuration and correct this config anywhere it exists.

Follow closely the upstream recommendations to detect affected indexes and modify them using the `collMod` command.

- Corrected a potential race condition where multiple writing threads can update collection metadata in a way where overwrites could possibly happen. This could cause data/documents to be either unavailable or lost.
- Fixed the issue with how the server handles batches of writes when running `$out` with secondary read preference by updating write size estimation logic in `DocumentSourceWriter`
- Improved the performance of inserts into unique indexes
- Prevented dropping empty path component from `elemMatch` path during index selection

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

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Last update: January 3, 2023

Created: December 8, 2022

2.9 Percona Distribution for MongoDB 5.0.5 (2021-12-28)

Release date: **December 28, 2021**

Installation: [Installing Percona Distribution for MongoDB](#)

Warning

We don't recommend this version for the production use due to the critical issue with sharding metadata inconsistency: [SERVER-68511](#). The metadata inconsistency is observed when running the `movePrimary` command on the database that has the Feature Compatibility Version (FCV) set to 4.4 or earlier. Affects MongoDB versions 5.0.0 through 5.0.10 and MongoDB 6.0.0. Upgrade to the fixed version of MongoDB 5.0.11 / Percona Server for MongoDB 5.0.11-10 as soon as possible.

Please follow closely the upstream recommendations outlined in [SERVER-68511](#) to work around this issue and for the remediation steps, if your cluster is affected.

We are pleased to announce the release of the Percona Distribution for MongoDB for the recent major version 5.0.x.

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This release of Percona Distribution for MongoDB is based on the production release of [Percona Server for MongoDB 5.0.5-4](#) and [Percona Backup for MongoDB 1.6.1](#).

2.9.1 Release Highlights

This release of Percona Distribution for MongoDB includes bug fixes, provided by MongoDB and included in Percona Server for MongoDB. The most notable from them are the following:

- Added histograms to track latency for tasks scheduled on the reactor thread.
- Fixed an issue when resharding a collection that could cause data inconsistency (lost writes) due to incorrect actions by the ReshardingCoordinator and attempts to commit anyway. Also could cause `fassert()` to config server primary.
- Fixed an issue with stalls on the config server. Updates to config server during resharding may wait too long for oplog slot thus stalling replication on config server indefinitely.
- Fixed a resharding issue relating to RecipientStateMachine that caused the server to crash

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.

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Last update: January 3, 2023

Created: December 9, 2022

3. Installation and Upgrade

3.1 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](#)
[On RHEL/derivatives](#)
[From tarballs](#)
[On Kubernetes](#)

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 -O https://repo.percona.com/apt/percona-release_latest.generic_all.deb
```

- Install the package and dependencies

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

- Refresh the local cache

```
$ sudo apt update
```

2. Enable the repository

Percona provides [two repositories](#) for Percona Distribution for MongoDB. To enable a repo, we recommend using the `setup` command:

```
$ sudo percona-release setup pdmdb-5.0
```

3. Install Percona Distribution for MongoDB packages

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

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 repo, we recommend using the `setup` command:

```
$ sudo percona-release setup pdmdb-5.0
```

3. Install Percona Distribution for MongoDB packages

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

You can find binary tarballs on the [Percona software downloads page](#)

1. Select *Generic Linux* from the dropdown.

19 of 24

2. Download binary tarballs. Replace the `<version>` variable with the desired version:

```
$ wget https://downloads.percona.com/downloads/percona-distribution-mongodb-5.0/percona-
```

To set up monitoring of your Percona Distribution for MongoDB in PMM, see [Set up PMM to monitor MongoDB](#)

3.1.1 Uninstall Percona Distribution for MongoDB

To uninstall Percona Distribution for MongoDB, 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](#)

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3.1.2 Get expert help

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3.2 Repository overview

Percona provides two repositories for Percona Distribution for MongoDB:

Major release repository

Major Release repository (for example, `pdmdb-5.0`) 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-5.0.9`). 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.

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3.3 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.

3.3.1 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. This 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-5.0.1`) to upgrade. We recommend to use the `setup` subcommand:

```
$ sudo percona-release setup pdmdb-5.0.1
```

3.3.2 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 systemctl 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 systemctl pbm-agent start
```

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3.3.3 Get expert help

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4. Reference

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