



Platform

- [Support for MongoDB 5.0 Version in vDRA, on page 1](#)
- [Upgrade Alma Linux to 8.8, on page 3](#)
- [Upgrade MongoDB Version 5.0, on page 4](#)
- [MongoDB Recovery Script for Network Partition Resilience, on page 5](#)
- [VMware ESXi Hypervisor 7.0.3 Support, on page 7](#)

Support for MongoDB 5.0 Version in vDRA

Feature Summary and Revision History

Table 1: Summary Data

Applicable Product(s) or Functional Area	vDRA
Applicable Platform(s)	Not Applicable
Default Setting	Enabled – Configuration Required
Related Changes in This Release	Not Applicable
Related Documentation	Not Applicable

Table 2: Revision History

Revision Details	Release
First introduced	24.1.0

Feature Description

This release provides support for MongoDB version 5.0

Upgrade, Migrate, and Backward Compatibility Considerations

- **Supported DRA Releases for Upgrading to 5.0:** You can upgrade vDRA 23.1.0/23.2 (mongoDB version,4.4.18) to vDRA 24.1.0 (mongoDB version, 5.0).
- **Un Supported DRA Releases for Upgrading to 5.0:** Any DRA version prior to DRA 23.2.0/23.1.0 (Mongo 4.4) and previous versions of DRA, does not support direct upgrade to DRA 24.1 (mongoDB version, 5.0)

Refer the [link](#) for upgrading the replica set to 5.0.



Note Upgrading to DRA 24.1 is supported only from DRA 23.1.0 and 23.2.0.

Mongo Java Driver: MongoDB version 4.4 and 5.0 requires Mongo Java Driver version 3.11 and above.

Prerequisite for upgrading to 24.1 from 23.1.0 and 23.2.0

The following are the common prerequisites for upgrade:

- Run the following CLI before upgrade:

```
#database genericfcvcheck 4.4
```



Note Make sure to run the above CLI before upgrade and / or downgrade on all sites.

- Specify any one of the CLI options:
 - **Set:** This option checks and sets FCV only on primary.



Note We recommend using the **Set** option first and then **Check** to make sure that FCV is replicated on primary members. Upgrade/downgrade should not be triggered if any error is found in the above CLI or FCV is not replicated on secondary members. Make sure to resolve the CLI error, rerun the CLI, and then only proceed for upgrade or downgrade.

- **Check:** This option only checks FCV on all members (primary, secondary, and arbiter).

- Run the following CLI before upgrade:

```
#database dwccheck
```



Note CLI automatically takes care of the defaultWriteConcern version on all databases.

- Specify any one of the CLI options:

- **Set:** This option checks and sets dwc on primary members.



Note We recommend using the **Set** option first and then **Check** to make sure that DWC is replicated on primary members. Upgrade/downgrade should not be triggered if any error is found in the above CLI or DWC is not replicated on secondary members. Make sure to resolve the CLI error, rerun the CLI, and then only proceed for upgrade or downgrade.

- **Check:** This option only checks dwc on all members.
- **(set/check) << set**
 - **Set:** This option checks and sets defaultWriteConcern.
 - **Check:** This option only checks defaultWriteConcern on all members(primary/secondary).

Upgrade to 24.1.0

1. Run the prerequisite steps.
2. Follow the standard documented procedure for upgrade.

Downgrade from 23.1.0 or 23.2.0

1. Run the steps mentioned in the prerequisite section.
2. Follow the standard documented procedure for downgrade.

Upgrade Alma Linux to 8.8

Feature Summary and Revision History

Table 3: Summary Data

Applicable Product(s) or Functional Area	CPS
Applicable Platform(s)	Not Applicable
Feature Default	Enabled – Always-on
Related Changes in This Release	Not Applicable
Related Documentation	Not Applicable

Revision History

Revision Details	Release
First introduced.	24.1.0

Feature Description

In CPS 24.1.0 release, Alma Linux version 8.7 is replaced with Alma Linux 8.8 along with upgrading to the latest rpm packages and their dependencies.

With Alma Linux 8.8 the kernel version is modified to:

```
# rpm -qa | grep kernel-[0-9]
kernel-4.18.0-477.27.1.el8_8.x86_64

## cat /etc/redhat-release
AlmaLinux release 8.8 (Sapphire Caracal)

# uname -a
Linux localhost.localdomain 4.18.0-477.27.1.el8_8.x86_64 #1 SMP Thu Feb 8 13:51:50 EST 2024
x86_64 x86_64 x86_64 GNU/Linux
```

Upgrade MongoDB Version 5.0

Feature Summary and Revision History

Table 4: Summary Data

Applicable Product(s) or Functional Area	CPS
Applicable Platform(s)	Not Applicable
Default Setting	Enabled – Configuration Required
Related Changes in This Release	Not Applicable
Related Documentation	Not Applicable

Table 5: Revision History

Revision Details	Release
First introduced	24.1.0

Feature Description

This release provides support for MongoDB version 5.0. Following are the supported and unsupported CPS releases:

- **Supported CPS Releases for upgrading to 5.0:**

You can upgrade CPS 23.1.0 or 23.2.0 (using mongoDB version 4.4.18) to CPS 24.1.0 (using mongoDB version, 5.0.20). Upgrade to MongoDB 5.0 is supported only from MongoDB 4.4. For example, if you are running a 4.2 series, you must first upgrade to 4.4 before you can upgrade to 5.0.

• **Un Supported CPS Releases for upgrading to 5.0:**

Any CPS version before CPS 23.1.0 or 23.2.0 such as CPS 22.2.0 (using mongoDB version 4.2.20) or CPS 22.1.1 (using mongodB version 4.0.27) or previous versions of CPS (using mongoDB version 3.x) does not support direct upgrade to CPS 24.1.0.

To upgrade the mongoDB version to 5.0, you must upgrade to CPS version 23.2.0 or 23.1.0, which uses the mongoDB 4.4 version. For example, if you are running a mongoDB 3.6 series in your CPS release, it is required to first upgrade to 4.0, then to 4.2, and then to 4.4 before planning for any upgrade to 5.0.

To upgrade the Replica set to 5.0, go to <https://www.mongodb.com/docs/manual/release-notes/5.0-upgrade-replica-set/>

The compatible Java driver for 5.0 is 3.12.9.



Note Execute the following steps after successfully moving to 24.1.0 (either through fresh install or ISSM):

- Verify whether the DefaultRWConcern configuration for MongoDB is set to 1.
- If the value is not set to 1, run the following script from Cluman to update it to 1.

```
source /var/qps/install/current/scripts/bin/support/mongo/dbcmds.sh

replica_sets=$(perl -wln 'print if /SETNAME=../MEMBER1=/' /etc/broadhop/mongoConfig.cfg
|awk -F=
/MEMBER1/{print $2}')
for set in ${replica_sets[*]}; do
    echo $set;
    x="$MONGO_ADMIN ${set} --eval 'db.adminCommand( { setDefaultRWConcern : 1,
\"defaultWriteConcern\": { \"w\" : 1 ,\"wtimeout\" : 0 } })'";
    xx=$(eval $x);
    echo $xx
done
```

MongoDB Recovery Script for Network Partition Resilience

Feature Summary and Revision History

Table 6: Summary Data

Applicable Product(s) or Functional Area	CPS
Applicable Platform(s)	Not Applicable
Default Setting	Disabled - Configuration Required
Related Changes in This Release	Not Applicable

Related Documentation	CPS Installation Guide for Vmware
-----------------------	-----------------------------------

Table 7: Revision History

Revision Details	Release
First introduced	24.1.0

Feature Description

Starting with the release of MongoDB 5.0, when a majority of replica set members are unavailable, the MongoDB storage undergoes exponential growth, potentially resulting in a complete database crash and the creation of a black hole in CPS.

MongoDB recovery Script for Network Partition Resilience is designed to handle the scenarios during failover, so that majority of the replica set members are available.

The following `Configuration.csv` parameters are introduced as part of this feature:

- `enable_mongodb_majority_failover_monit` - Set the value as true or false to enable or disable the feature respectively. **Default Value:** False
- `majority_failover_monit_cycles` - Set the time interval value in seconds to periodically run the MongoDB recovery Script. **Default Value:** 180 Seconds
- `majority_failover_action` - Choose any of the following actions on the member which is down:
 - `REDUCE_PRIORITY` - Reduce the priority and vote the member to 0. (Default, Recommended)
 - `REMOVE_MEMBER` - Remove the member from the replica set.
- `majority_failover_iteration_threshold` - Number of iterations the MongoDB recovery Script can wait before taking `majority_failover_action` on a member that is is down. **Default Value:** 3

Following is the sample configuration:

```
enable_mongodb_majority_failover_monit,true,
majority_failover_monit_cycles,180,
majority_failover_action,REDUCE_PRIORITY,
majority_failover_iteration_threshold,5,
```



Note The above MongoDB `configuration.csv` parameter values change from deployment to deployment, depending on factors such as disk usage and the number of SM VMs per site. We recommend you use appropriate values, as default values might not be suitable for all deployments.

VMware ESXi Hypervisor 7.0.3 Support

Feature Summary and Revision History

Table 8: Summary Data

Applicable Product(s) or Functional Area	CPS
Applicable Platform(s)	Not Applicable
Default Setting	Enabled - Configuration Required
Related Changes in This Release	Not Applicable
Related Documentation	CPS Installation Guide for VMware CPS Migration and Upgrade Guide

Table 9: Revision History

Revision Details	Release
First introduced Important This feature has not been validated for all customer deployment scenarios. Please contact your Sales Account team for support.	24.1.0

Feature Description

This release provides support for VMware ESXi™ Hypervisor 7.0.3 version. For details about deploying CPS on ESXi 7.0.3, refer to the *CPS Installation Guide for VMware* and *CPS Migration and Upgrade Guide* respectively.

