



**Xinnor xiRAID 4.0.1-4.0.3 to  
Xinnor xiRAID 4.0.4 Update Guide**

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# Xinnor xiRAID 4.0.1-4.0.3 to Xinnor xiRAID 4.0.4 Update Guide

Instructions on updating Xinnor xiRAID 4.0.1, 4.0.2 and 4.0.3 to Xinnor xiRAID 4.0.4.

## Overview

This document provides the instructions on updating Xinnor xiRAID 4.0.1, 4.0.2 and 4.0.3 to Xinnor xiRAID 4.0.4.

Xinnor xiRAID 4.0.4 currently supports Oracle, Ubuntu, Proxmox, Alma Linux, Rocky Linux and RHEL systems (refer to the Xinnor xiRAID 4.0.4 System Requirements for the full list of distributions). You can update Xinnor xiRAID 4.0.1, 4.0.2 and 4.0.3 using the “xiraid-repo” repository (see updating instructions for your OS below).

During the update, additional packages required by Xinnor xiRAID 4.0.4 will be automatically installed on your system (see Xinnor xiRAID 4.0.4 System Requirements).

Version Lock plugin will be installed along with the xiRAID packages. Once the update is finished, this plugin will lock the version of the current packages, preventing it from being automatically updated on general system update commands (`apt/yum/dnf update`).

You can disable the Version Lock using the Update Check Service commands listed in the Xinnor xiRAID 4.0.4 Administrator's Guide to update your Xinnor xiRAID to a newer available version. The instructions on how to do that safely will be available at [xinnor.io](http://xinnor.io).

We recommend setting up email notifications to receive information about the latest Xinnor xiRAID. Detailed instructions on how to do this are listed in the Xinnor xiRAID Administrator's Guide. The notifications will be sent to you once every three days. The corresponding messages will be added to journalctl logs regardless of your notifications settings.

## Before updating

This section outlines the necessary steps that need to be taken prior to updating Xinnor xiRAID 4.0.1, 4.0.2 and 4.0.3 to Xinnor xiRAID 4.0.4. These steps are applicable to all systems.

1. Make sure your system meets the requirements listed in Xinnor xiRAID 4.0.4 System Requirements.
2. Update you local package index and cached packages:
  - a. For apt:

```
# apt update
```

- b. For yum/dnf:

```
# yum clean all
```

3. Make sure the new Xinnor xiRAID version is available for update:

```
# xicli update check
```

4. Stop using the xiRAID devices:

- a. Disable all the applications that are using the xiRAID devices.
- b. Unmount all file systems that use the xiRAID devices (using umount, systemd or other suitable tool) and disable automatic mounting of file systems at system startup. For example, if you use the mounting approach described at 'File System Mounting Aspects' section in Xinnor xiRAID 4.0.1 Administrator's Guide, do the following:

- if automatic mounting was enabled through systemd.mount, stop the service that mounts file systems for all xiRAID devices:

```
# systemctl stop mnt-raid.mount
```

Disable the automatic mounting service for all xiRAID devices at system startup:

```
# systemctl disable mnt-raid.mount
```

- if automatic mounting was enabled through /etc/fstab, unmount all file systems that use the xiRAID devices (using umount or other suitable tool):

```
# umount /dev/xi_<device_name>
```

Comment out the lines in the /etc/fstab file that are responsible for automatic mounting of the xiRAID devices. To do this, insert a comment symbol (#) before those lines. For example:

```
# # /dev/xi_raidname    /mnt/raid/    xfs
x-systemd.requires=xiraid-restore.service,x-
systemd.device-timeout=5m,_netdev 0 0
```

- make sure all file systems that use the xiRAID devices are unmounted:

```
# df -h
```

5. Make sure that all RAID configurations are in the state “*online*” (for RAID 0) or “*online, initialized*” (other RAID configurations):


```
# xicli raid show
```


RAID name	static	state	devices	info
example	size: 29 GiB level: 5 strip_size: 16 block_size: 4096 sparepool: - active: True config: True	online initialized	0 /dev/sdb online 1 /dev/sdc online 2 /dev/sdd online 3 /dev/sde online	memory_usage_mb : -

Command output example

6. Copy the Xinnor xiRAID configuration file to the home directory (or any other directory of your choice) as a backup in case the update does not complete successfully:

```
cp /etc/xiraid/raid.conf ~/
```

 Ignoring these steps may result in filesystem panic and even data loss.

 xiRAID is installed on the active kernel version of your OS and supports regular kernel updates by automatically rebuilding its kernel module. However, if your system has multiple kernel versions installed and xiRAID is not installed on the latest one, it will not function correctly when switching to the latest kernel version. Make sure you are booted into the correct kernel version if you want to install xiRAID on it.

Otherwise, follow these steps to switch to the desired kernel version:

1. Boot into the desired kernel.
2. Install the development kernel-headers package for the current kernel (see the Xinnor xiRAID 4.0.4 Installation Guide for the specific command for your distribution).

### 3. Run:

```
# dkms autoinstall  
  
# systemctl restart xiraid.target
```

## Updating

This section provides a list of steps that should be taken to update Xinnor xiRAID 4.0.1, 4.0.2 and 4.0.3 to Xinnor xiRAID 4.0.4. Please refer to the instructions specific to your operating system.

## RHEL and RHEL-based (CentOS, Alma Linux & Rocky Linux)

Information in this chapter is for the following systems:

- RHEL & RHEL-based 7.9;
- RHEL & RHEL-based 8;
- RHEL & RHEL-based 9.0.

When updating Xinnor xiRAID 4.0.1 on RHEL or RHEL-based 9.0 to Xinnor xiRAID 4.0.3 and 4.0.4 on RHEL or RHEL-based 9.1, 9.2, and 9.3, the output may include the following warning:



```
Error! The /var/lib/dkms/xiraid/.../dkms.conf for module xiraid  
includes a BUILD_EXCLUSIVE directdoes not match this kernel/  
arch. This indicates that it should not be built.
```

When installing Xinnor xiRAID on RHEL or RHEL-based 9\*, the latest kernel version will be installed. To revert your system to the kernel version used prior to installation, you need to change the default kernel that is launched. Specify the kernel version you want to return to (`kernel_version`):



```
# grubby --set-default "/boot/vmlinuz-<kernel_version>"
```

When updating Xinnor xiRAID 4.0.3 installed on **Alma Linux & Rocky Linux** to Xinnor xiRAID 4.0.4, the output may include the following warning:



Version lock for '{package}' was already removed.,

where `package` is the `xiraid` package. Starting from version 4.0.4, the Version Lock plugin operates correctly, and this issue will not occur when updating Xinnor xiRAID to future versions.

To update Xinnor xiRAID 4.0.1, 4.0.2 and 4.0.3 to Xinnor xiRAID 4.0.4 on an RHEL or RHEL-based system:

1. Disable the Version Lock plugin using the Update Check Service (once the update is finished, the plugin will be automatically re-enabled to lock the version of the installed packages):

```
# xicli update prepare
```

2. Update `xiraid-release`:

```
# yum install xiraid-release
```

## Oracle Linux

Information in this chapter is for the following systems:

- Oracle 8.4 and 8.6;
- Oracle 9.

If EPEL is installed on Oracle 9, it may prevent the `python3-grpcio-tools` package from being updated when you update your system to newer versions.



To resolve this issue, please run the following command to update your Oracle 9:

```
# dnf update --nobest
```

To update Xinnor xiRAID 4.0.1, 4.0.2 and 4.0.3 to Xinnor xiRAID 4.0.4 on an Oracle system:

1. Disable the Version Lock plugin using the Update Check Service (once the update is finished, the plugin will be automatically re-enabled to lock the version of the installed packages):

```
# xicli update prepare
```

2. Update xiraid-release:

```
# dnf install xiraid-release
```

## Ubuntu

Information in this chapter is for the following systems:

- Ubuntu 22.04.

To update Xinnor xiRAID 4.0.1, 4.0.2 and 4.0.3 to Xinnor xiRAID 4.0.4 on an Ubuntu system:

1. Disable the Version Lock plugin using the Update Check Service (once the update is finished, the plugin will be automatically re-enabled to lock the version of the installed packages):

```
# xicli update prepare
```

2. Update xiraid-release:

```
# apt update  
# apt install xiraid-release
```

## Proxmox

Information in this chapter is for the following system:

- Proxmox 7.2

To update Xinnor xiRAID 4.0.1, 4.0.2 and 4.0.3 to Xinnor xiRAID 4.0.4 on Proxmox:



1. Disable the Version Lock plugin using the Update Check Service (once the update is finished, the plugin will be automatically re-enabled to lock the version of the installed packages):

```
# xicli update prepare
```

2. Update xiraid-release:

```
# apt update  
# apt install xiraid-release
```

## After updating

This section outlines the necessary steps that need to be taken after updating Xinnor xiRAID 4.0.1, 4.0.2 and 4.0.3 to Xinnor xiRAID 4.0.4. These steps are applicable to all systems.

1. Check the xiraid module:

```
# lsmod | grep xiraid
```

The command shows if the xiraid module is loaded. Empty output indicates that the update has not completed successfully.

2. Check the Xinnor xiRAID version:

```
# xicli -v
```

The version number must be 4.0.4. Otherwise, the update has not completed successfully.

3. Check the Xinnor xiRAID operability:

```
# xicli raid show
```

The command outputs a list of created RAIDs in the form of a table. All RAIDs must be in the state *“online”* (RAID 0) or *“online, initialized”* (other RAID configurations). Otherwise, the update has not completed successfully.

RAID name	static	state	devices	info
example	size: 29 GiB level: 5 strip_size: 16 block_size: 4096 sparepool: - active: True config: True	online initialized	0 /dev/sdb online 1 /dev/sdc online 2 /dev/sdd online 3 /dev/sde online	memory_usage_mb : -

Command output example

4. Mount all file systems that use the xiRAID devices (using `mount`, `systemd` or other suitable tool) and enable automatic mounting of file systems at system startup if you had previously disabled it before the update.

When updating to Xinnor xiRAID 4.0.4, you can remove dependencies on `xiraid-restore.service`. If you have configured the mountpoint using `systemd.mount`, you can remove the lines "Requires = xiraid-restore.service; After = xiraid-restore.service" from the mountpoint service description and then run:

```
# systemctl daemon-reload.
```



If you have configured the mountpoint using `fstab`, you can replace the following options in the mountpoint string with your preferred or default options: "x-systemd.requires=xiraid-restore.service,x-systemd.device-timeout=5m,\_netdev; x-systemd.requires=xiraid-restore.service,x-systemd.device-timeout=5m,nofail". After that, run:

```
# systemctl daemon-reload
```

See What's New in Xinnor xiRAID 4.0.4.

- for `systemd.mount`, enable automatic mounting at system startup for all xiRAID devices:

```
# systemctl enable mnt-raid.mount
```

Start the service to mount the file systems for all xiRAID devices:

```
# systemctl start mnt-raid.mount
```

- for `/etc/fstab`, uncomment the lines in the `/etc/fstab` file that are responsible for automatic mounting of the xiRAID devices. To do this, delete a comment symbol (`#`) before those lines. For example,

```
# /dev/xi_raidname    /mnt/raid/    xfs    defaults    0    0
```

- run the command:

```
# systemctl daemon-reload
```

- mount all the file systems that use the xiRAID devices (using `umount` or other suitable tool):

```
# mount /dev/xi_<device_name>
```

- make sure all file systems that use the xiRAID devices are mounted:

```
# df -h
```

5. Enable all the applications that are using the xiRAID devices.

6. If the update was not successful, please contact Xinnor xiRAID Support Team at [support@xiraid.com](mailto:support@xiraid.com) with attached logs from `/var/log/xraid/setup.log`.