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**xiRAID Classic 4.0.0, 4.0.1,
4.0.2, 4.0.3 and 4.0.4 to xiRAID
Classic 4.1.0 Update Guide**

Contents

xiRAID Classic 4.0.0, 4.0.1, 4.0.2, 4.0.3 and 4.0.4 to xiRAID Classic 4.1.0 Update Guide.....	3
Overview.....	3
Before updating.....	4
Updating.....	6
RHEL and RHEL-based (Alma Linux & Rocky Linux).....	6
Oracle Linux.....	8
Ubuntu.....	9
Proxmox.....	11
After updating.....	12

xiRAID Classic 4.0.0, 4.0.1, 4.0.2, 4.0.3 and 4.0.4 to xiRAID Classic 4.1.0 Update Guide

Instructions on updating xiRAID Classic 4.0.0-4.0.4 to xiRAID Classic 4.1.0.

Overview

This document provides the instructions on updating xiRAID Classic 4.0.0, 4.0.1, 4.0.2, 4.0.3 and 4.0.4 to xiRAID Classic 4.1.0.

xiRAID Classic 4.1.0 currently supports Oracle, Ubuntu, Proxmox, Alma Linux, Rocky Linux and RHEL systems (refer to the xiRAID Classic 4.1.0 System Requirements for the full list of distributions). You can update xiRAID Classic 4.0.0, 4.0.1, 4.0.2, 4.0.3 and 4.0.4 using the “xiraid-repo” repository (see updating instructions for your OS below).

During the update, additional packages required by xiRAID Classic 4.1.0 will be automatically installed on your system (see xiRAID Classic 4.1.0 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 xiRAID Classic 4.1.0 Administrator's Guide to update your xiRAID Classic to a newer available version. The instructions on how to do that safely will be available at xinnor.io.

We recommend setting up email notifications to receive information about the latest xiRAID Classic releases. Detailed instructions on how to do this are listed in the xiRAID Classic 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 xiRAID Classic 4.0.0, 4.0.1, 4.0.2, 4.0.3 and 4.0.4 to xiRAID Classic 4.1.0. These steps are applicable to all systems.

1. Make sure your system meets the requirements listed in xiRAID Classic 4.1.0 System Requirements.

2. **For xiRAID Classic 4.0.1-4.0.4**, update you local package index and cached packages:

a. For apt:

```
# apt update
```

b. For yum/dnf:

```
# yum clean all
```

3. **For xiRAID Classic 4.0.1-4.0.4**, make sure the new xiRAID Classic 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 in 'File System Mounting Aspects' section in xiRAID Classic 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,defaults    0
0
```

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

```
# df -h
```

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

```
# xicli raid show
```

RAID's 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 xiRAID Classic 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 xiRAID Classic 4.1.0 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 xiRAID Classic 4.0.0, 4.0.1, 4.0.2, 4.0.3 and 4.0.4 to xiRAID Classic 4.1.0. Please refer to the instructions specific to your operating system.

RHEL and RHEL-based (Alma Linux & Rocky Linux)

Information in this chapter is for the following systems:

- RHEL 7.9;
- RHEL 8;
- RHEL & RHEL-based 9.

When updating xiRAID Classic 4.0.1 on RHEL or RHEL-based 9.0 to xiRAID Classic 4.1.0 on RHEL or RHEL-based 9.1, 9.2, 9.3 and 9.4, 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>"
```

To update xiRAID Classic 4.0.0, 4.0.1, 4.0.2, 4.0.3 and 4.0.4 to xiRAID Classic 4.1.0 on an RHEL or RHEL-based system:

1. **For the xiRAID Classic 4.0.0**, update the xiraid-repo package to the 1.0.1 version, 4.0.1-4.0.4 versions are provided with the 1.0.1 version installed:

- For RHEL 8:

```
# yum install https://pkg.xinnor.io/repository/Repository/
xiraid/el/8/kver-4.18/xiraid-repo-1.0.1-376.kver.4.18.noarch.rpm
```

2. **For the xiRAID Classic 4.0.1-4.0.4**, 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
```

3. Update the xiraid-release package:

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

4. Update the xiraid-repo package to the 1.1.0 version:

- For RHEL 7:

```
# yum install https://pkg.xinnor.io/repository/Repository/xiraid/el/7/kver-3.10/xiraid-repo-1.1.0-446.kver.3.10.noarch.rpm
```

- For RHEL 8 or RHEL-based 8:

```
# yum install https://pkg.xinnor.io/repository/Repository/xiraid/el/8/kver-4.18/xiraid-repo-1.1.0-446.kver.4.18.noarch.rpm
```

- For RHEL 9 or RHEL-based 9:

```
# yum install https://pkg.xinnor.io/repository/Repository/xiraid/el/9/kver-5.14/xiraid-repo-1.1.0-446.kver.5.14.noarch.rpm
```

5. Remove packages that are no longer needed:

```
# yum autoremove
```

Oracle Linux

Information in this chapter is for the following systems:

- Oracle 8.4 and 8.6;
- Oracle 9.

To update xiRAID Classic 4.0.0, 4.0.1, 4.0.2, 4.0.3 and 4.0.4 to xiRAID Classic 4.1.0 on an Oracle system:

1. **For the xiRAID Classic 4.0.0**, update the xiraid-repo package to the 1.0.1 version, 4.0.1-4.0.4 versions are provided with the 1.0.1 version installed:

- For Oracle 8.4:

```
# yum install https://pkg.xinnor.io/  
repository/Repository/xiraid/oracle/8/kver-5.4/  
xiraid-repo-1.0.1-376.kver.5.4.noarch.rpm
```

2. **For the xiRAID Classic 4.0.1-4.0.4**, 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
```

3. Update the xiraid-release package:

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

4. Update the xiraid-repo package to the 1.1.0 version:

- For Oracle 8.4 and 8.6:

```
# yum install https://pkg.xinnor.io/  
repository/Repository/xiraid/oracle/8/kver-5.4/  
xiraid-repo-1.1.0-446.kver.5.4.noarch.rpm
```

- For Oracle 9:

```
# yum install https://pkg.xinnor.io/repository/  
Repository/xiraid/oracle/9/kver-5.15/  
xiraid-repo-1.1.0-446.kver.5.15.noarch.rpm
```

5. Remove packages that are no longer needed:

```
# yum autoremove
```

Ubuntu

Information in this chapter is for the following systems:

- Ubuntu 20.04;
- Ubuntu 22.04.

To update xiRAID Classic 4.0.0, 4.0.1, 4.0.2, 4.0.3 and 4.0.4 to xiRAID Classic 4.1.0 on an Ubuntu system:

1. **For the xiRAID Classic 4.0.0**, update the xiraid-repo package to the 1.0.1 version, 4.0.1-4.0.4 versions are provided with the 1.0.1 version installed:

- For Ubuntu 22.04:

```
# curl -O https://pkg.xinnor.io/repository/Repository/xiraid/  
ubuntu/22.04/kver-5.15/xiraid-repo_1.0.1-376.kver.5.15_amd64.deb  
# apt install ./xiraid-repo_1.0.1-376.kver.5.15_amd64.deb
```

2. **For the xiRAID Classic 4.0.1-4.0.4**, 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
```

3. Update the xiraid-release package:

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

4. Update the xiraid-repo package to the 1.1.0 version:

- For Ubuntu 20.04:

```
# curl -O https://pkg.xinnor.io/repository/Repository/xiraid/  
ubuntu/20.04/kver-5.4/xiraid-repo_1.1.0-446.kver.5.4_amd64.deb  
# apt install ./xiraid-repo_1.1.0-446.kver.5.4_amd64.deb
```

- For Ubuntu 22.04:

```
# curl -O https://pkg.xinnor.io/repository/Repository/xiraid/  
ubuntu/22.04/kver-5.15/xiraid-repo_1.1.0-446.kver.5.15_amd64.deb  
# apt install ./xiraid-repo_1.1.0-446.kver.5.15_amd64.deb
```

5. Remove packages that are no longer needed:

```
# apt autoremove
```



When updating xiRAID Classic 4.0.0 to xiRAID Classic 4.1.0, the following error may occur: `xraid-setup.py: error: unrecognized arguments: 4.1.0`. This error is expected and does not affect the update process or xiRAID Classic further operation.

Proxmox

Information in this chapter is for the following system:

- Proxmox 7.2;
- Proxmox 7.4.

To update xiRAID Classic 4.0.1, 4.0.2, 4.0.3 and 4.0.4 to xiRAID Classic 4.1.0 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 the xiraid-release package:

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

3. Update xiraid-repo package to the 1.1.0 version:

- For Proxmox 7.2 and 7.4:

```
# curl -O https://pkg.xinnor.io/repository/Repository/xiraid/  
proxmox/7.2/kver-5.15/xiraid-repo_1.1.0-446.kver.5.15_amd64.deb  
# apt install ./xiraid-repo_1.1.0-446.kver.5.15_amd64.deb
```

4. Remove packages that are no longer needed:

```
# apt autoremove
```



When updating xiRAID Classic 4.0.0 to xiRAID Classic 4.1.0, the following error may occur: `xraid-setup.py: error: unrecognized arguments: 4.1.0`. This error is expected and does not affect the update process or xiRAID Classic further operation.

After updating

This section outlines the necessary steps that need to be taken after updating xiRAID Classic 4.0.0, 4.0.1, 4.0.2, 4.0.3 and 4.0.4 to xiRAID Classic 4.1.0. 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 xiRAID Classic version:

```
# xicli -v
```

The version number must be 4.1.0. Otherwise, the update has not completed successfully.

3. Check the xiRAID Classic operability:

```
# xicli raid show
```

The command outputs a list of created RAID configurations in the form of a table. All RAID configurations 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 xiRAID Classic 4.1.0, 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 xiRAID Classic 4.1.0.

- 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 xiRAID Classic Support Team at support@xiraid.com with attached logs from `/var/log/xraid/setup.log`.