

Xinnor xiRAID 4.0.0 User Documentation

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Xinnor xiRAID 4.0.0 System Requirements

Hardware and software requirements of Xinnor xiRAID 4.0.0

Hardware Requirements

Component	Requirements
Processor	x86_64 instruction set. With AVX support (RAID N+M requires AVX2). With AVX2 support.
RAM	Minimum 8 GiB.

Software Requirements

The generic version of Xinnor xiRAID 4.0.0 is compatible with the distributions and cores listed below. Support of other Linux distributions and custom user kernels may be provided on request at support@xinnor.io

For versions of distributions with DKMS, it is possible to use kernels higher than the version specified in the requirements as part of patch versions. For more details, see the chapter “DKMS”.

DKMS

For the xiraid kernel module with DKMS:

- The xiraid kernel module uses DKMS (Dynamic Kernel Module Support) technology and is automatically built and is installed for the specified version of the Linux kernel or higher, but only within the patch versions (without kernel API or ABI changes).

The minimal patch version number is shown in bold in the table "Operating system distributions" (column “Minimal Required Kernel”).

- Headers of your current kernel version are required to install the xiraid kernel module.
- If you update the kernel, you need headers for the new kernel version.

Do not update the kernel more than a patch update (with kernel API or ABI changes) because the xiraid kernel module will not be loaded.

For the xiraid kernel module without DKMS:

The xiraid kernel module is installed only for the specified version of the Linux kernel. Do not update the kernel version on builds with xiraid without DKMS: the xiraid kernel module will not be loaded after updating the system kernel.

Operating System Distributions

Operating System		Kernel		
Name	Version	DKMS	Minimal Required Kernel	Maximal Tested Version at Release Time
RHEL	8.4 and higher (only for 4.18.0 kernel)	Yes	kernel-4.18.0- 305.19.1.el8_4	kernel-4.18.0-372.9.1.el8_6
Oracle Linux (UEK)	8.4 and higher (only for 5.4.17 kernel)	Yes	kernel-uek-5.4.17- 2036.100.6.1.el8uek	kernel-uek-5.4.17-2136.306.1.3.el8uek
Ubuntu	22.04 LTS	Yes	linux- image-5.15.0- 27 - generic	linux- image-5.15.0-37- generic

Program Packages

General List of Program Packages

coreutils
 dkms
 gcc
 make
 postfix
 python3 (version 3.5 and higher)
 python3-argcomplete
 python3-grpcio
 python3-grpcio-tools
 python3-protobuf
 python3-pyudev
 python3-terminaltables
 nvme-cli
 sg3-utils
 smartmontools
 udev
 ledmon

Additional Packages for Specific Distributions

For RHEL, Oracle Linux (EL), CentOS:
 kernel-devel

 For Oracle Linux (UEK):
 kernel-uek-devel

 For Ubuntu:
 linux-headers