XINNOR

What's New in xiRAID Classic 4.1.0

Contents

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1. **New supported distributions: Ubuntu 23.04, Proxmox 8, 8.1.**

   The new version of xiRAID Classic is compatible with the distributions listed below:

   - Oracle 8.4, 8.6, 9;
   - RHEL 7.9, 8, 9.0, 9.1, 9.2, 9.3, 9.4;
   - Ubuntu 20.04, 22.04, 23.04;
   - Proxmox 7.2, 7.4, 8, 8.1;
   - AlmaLinux 9.0, 9.1, 9.2, 9.3, 9.4;
   - RockyLinux 9.0, 9.1, 9.2, 9.3, 9.4.

2. **xiRAID Classic can now operate within a High Availability (HA) cluster.**

   To ensure data integrity and availability, you can use xiRAID Classic in a High Availability cluster, distributing data and components across multiple nodes. Configure and connect at least two cluster nodes to shared drives. If a node fails, the xiRAID Classic components can migrate to other operational nodes, maintaining continuous operations without disruption. Instructions for configuring HA for xiRAID Classic are available in xiRAID Classic 4.1.0 High Availability cluster Guide.

3. **New CPU management approach.**

   In previous product versions, it was possible to limit the number of CPUs and CPU threads available for the entire xiRAID Classic module. Starting with xiRAID Classic 4.1.0, the CPU management approach has changed, making it possible to assign specific CPUs to individual RAIDs during RAID creation and modification. To learn more, refer to the CPU management chapter in the xiRAID Classic 4.1.0 Administrator's Guide.

4. **Improved mechanism of merging sequential requests.**

   Merging sequential requests to write to and read data from a RAID in full stripes rather than small blocks can significantly improve system performance. In previous versions of xiRAID Classic, it was possible to enable such merging and configure the time for stripe accumulation manually. This possibility remains in xiRAID Classic 4.1.0. However, the new **Adaptive Merge** function is

introduced. Enabling Adaptive Merge automatically selects the optimal waiting time for accumulating sequential write requests to maximize the write speed and thus boost system performance. To learn more, refer to the Merge function chapter in the xiRAID Classic 4.1.0 Administrator's Guide.

5. **AppImage packaged dependencies.**

   We introduced AppImage as a technology to control versions of dependent software and libraries critical for xiRAID Classic. Now when installing or upgrading xiRAID Classic the user can be sure that the correct dependencies versions will be installed on the system.

6. **New RAID configuration specifics.**

   Starting with this updated version, the minimum number of drives required to create a RAID 10 configuration has increased to 4. For RAID 7.3, the minimum drive count is now 6, while RAID 70 requires at least 12 drives. Additionally, a minimum of 2 groups is now required to create syndromic RAID configurations, such as RAID 10, RAID 50, RAID 60, RAID 70, and RAID N+M. To learn more, refer to the Creating the RAID chapter in the xiRAID Classic 4.1.0 Administrator's Guide.

   If you are updating from older versions, then RAID arrays with previously available configurations (if they do not match the new ones) will not be deleted and will continue to work, but you will no longer be able to recreate them.

7. **Drives grouping information in RAID configuration display.**

   For syndromic RAIDs (levels 10, 50, 60, 70, and N+M), the drives are now grouped according to their respective group numbers in an extended RAID show output (`xicli raid show -e` command). Additionally, after the restripe operation, the drives in a RAID that have been restriped and need resizing are now highlighted in yellow.

8. **Improved Email notifications format.**

   Starting with xiRAID Classic 4.1.0, you can set up and configure email notifications about the system state using any Mail Transport Agent (e.g., Postfix, Sendmail, or Exim) instead of just Postfix, which was provided with xiRAID in previous versions. The email format has also changed for convenience - the subject now includes all recipients, the sender (hostname), and the

notification level (info, warning, or error), while the content contains the name of the host, server IPs, and the notification. To learn more, see the Setting up Email Notifications chapter of the xiRAID Classic 4.1.0 Administrator's Guide.

9. **Ledmon application automatic shutdown.**

   The ledmon application used to monitor RAID and drive states in xiRAID is now automatically disabled if it is not supported by a user's system hardware.

10. **Configurtaion files restructuring.**

    In previous versions of xiRAID Classic, the system and RAID configuration information was stored in the current configurations file and the metadata on the drives included in the RAID configuration. However, due to xiRAID Classic 4.1.0 ability to function within a High Availability cluster, which requires migrating RAIDs from one node to another, the configuration information has been restructured and redistributed across different directories. Currently, the system and RAID configurations are stored in the common configurations file /etc/xiraid/raid.conf (xiRAID system configuration), the individual RAID configuration files in /etc/xiraid/raids directory (xiRAID RAID configurations), and the metadata on the disks included in the created xiRAID RAID device (xiRAID RAID configurations). To learn more, see the xiRAID System and RAID Configuration chapter of the xiRAID Classic 4.1.0 Administrator's Guide.

11. **RHEL 7 notification update fixed.**

    Starting with xiRAID Classic 4.1.0, the notification about the update availability from RHEL 7 will be displayed every time a new xiRAID Classic update is released.

12. **Minor bugs of the previous versions have been fixed.**