

Installation d un RAID sur PC

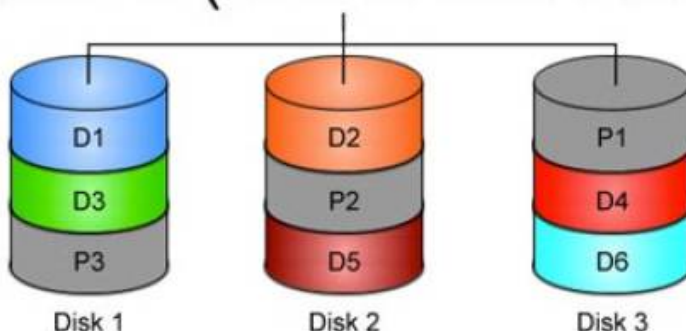
Definition

- RAID 0 : (2 disques identiques minimum) Améliore les performances en écrivant la moitié des données sur le 1er disque dur puis l'autre moitié sur le 2ème disque dur.
- RAID 1 : (2 disques identiques minimum) Mode miroir. Améliore la sécurité de vos données en stockant les mêmes données sur les 2 disques durs sélectionnés lors de la création du RAID. Ainsi, si un disque dur meurt, vos données seront en sécurité sur l'autre disque dur.



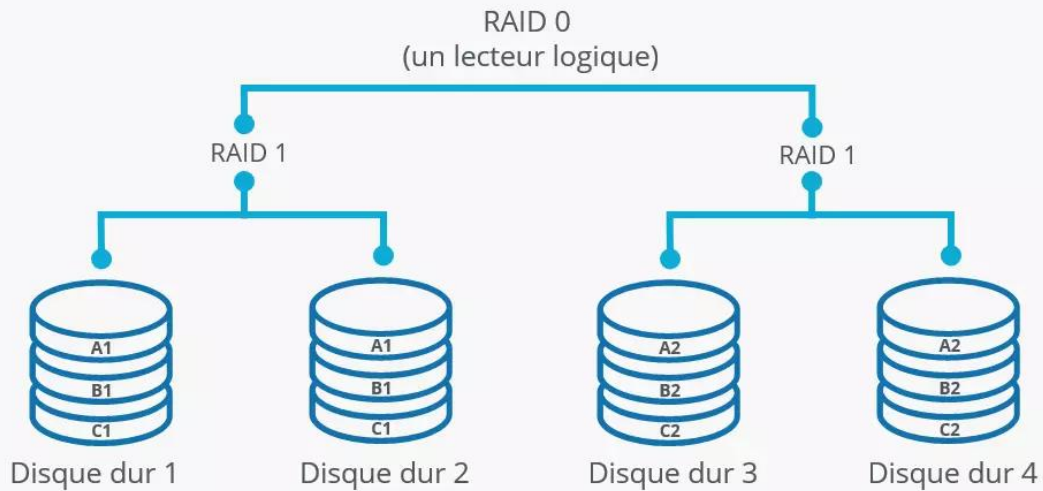
- RAID 5 : (3 disques identiques minimum) Combinaison du RAID 0 (Performances) et du RAID 1 (Sécurité).
 - Avec un RAID 5 :
 - - la moitié des données est écrite sur le 1er disque dur
 - - l'autre moitié est écrite sur le 2ème disque dur
 - - et une parité (un code de correction qui permet de recalculer les données perdues) est stockée sur le 3ème disque dur.
 - Exemple avec des chiffres : HDD 1 (valeur 1), HDD 2 (valeur 5) et parité (valeur 6). $1+5=6$. Si le disque dur 2 meurt, je sais qu'il possédait la valeur 5 car $6-1=5$.

RAID 5 (Drives with Parity)



- RAID 10 : (4 disques identiques minimum) Il s'agit aussi d'une combinaison du RAID 0 et du RAID 1. Son avantage par rapport au RAID 5 est qu'il peut supporter une défaillance de 2 disques durs contre 1 seul disque dur défaillant pour le RAID 5.

RAID 10 (Redundant Array of Independent Disks Niveau 10)



IONOS

stellar	MINIMUM DRIVES	READ/WRITEPERFORMANCE	CAPACITY UTILIZATION	DATA PROTECTION	TYPICAL APPLICATION
RAID 0	2	High	100%	No Protection	gaming and high end workstations for video editing
RAID 1	2	High/Medium	50%	Single-Drive Failure	Critical Data Storage, Accounting Database, etc.
RAID 5	3	High/Low	67%-94%	Single-Drive Failure	Application Servers, Data Warehousing, Archiving, etc.
RAID 6	4	High/Low	50%-88%	Two-Drive Failure	Servers with Large Drives, Data Archive, High Availability Solutions
RAID 10	4	High/Medium	50%	Upto One-Drive Failure in Each Sub-Array	Fast Database Servers, Application servers, etc.
RAID 50	6	High/Medium	67%-94%	Upto One-Drive Failure in Each Sub-Array	Large Databases, File Server, Application Servers, etc.
RAID 60	8	High/Medium	50%-88%	Upto One-Drive Failure in Each Sub-Array	Servers with Large Drives, Data Archive, High Availability Solutions

Utilisation plugin openmediavault-snapraid 7.0.12

The screenshot shows the OpenMediaVault web interface. On the left is a dark sidebar with navigation options like 'Tableau de bord', 'Système', 'Interface utilisateur', etc. The main content area is titled 'Système | Extensions' and shows search results for 'raid'. Two results are visible:

- openmediavault-snapraid 7.0.12**
snapraid plugin for OpenMediaVault.
Description: SnapRAID is a backup program for disk arrays. It stores parity information of your data and it's able to recover from up to two disk failures. SnapRAID is mainly targeted for a home media center, with a lot of big files that rarely change. Besides the ability to recover from disk failures, other features of SnapRAID are: * All your data is hashed to ensure data integrity and to avoid silent corruption. * If the failed disks are too many to allow a recovery, you lose the data only on the failed disks. All the data in the other disks is safe. * If you accidentally delete some files in a disk, you can recover them. * You can start with already filled disks. * The disks of the array can have different sizes. * You can add disks at any time. * It doesn't lock-in your data. You can stop using SnapRAID at any time without the need to reformat or move data.
Section: Filesystems
Mainteneur: OpenMediaVault Plugin Developers <plugins@omv-extras.org>
Page d'accueil: <https://omv-extras.org/>
Dépôt: /
Taille: 38.81 KiB
- openmediavault-zfs 7.1.1**
OpenMediaVault plugin for ZFS
Description: ZFS is a combined file system and logical volume manager designed by Sun Microsystems. The features of ZFS include protection against data corruption, support for high storage capacities, efficient data compression, integration of the concepts of filesystem and volume management, snapshots and copy-on-write clones, continuous integrity checking and automatic repair, RAID-Z and native NFSv4 ACLs. The native Linux kernel port of the ZFS filesystem.
Section: Filesystems
Mainteneur: OpenMediaVault Plugin Developers <plugins@omv-extras.org>
Page d'accueil: <http://omv-extras.org/>
Dépôt: /
Taille: 44.43 KiB

At the bottom of the results, it says '1 sélectionné / 2 total'.

From: <https://magenealogie.chanterie37.fr/www/fablab37110/> - **Castel'Lab le Fablab MJC de Château-Renault**

Permanent link: <https://magenealogie.chanterie37.fr/www/fablab37110/doku.php?id=start:raspberry:nas:raid&rev=1736075394>

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