**SNAPRAID (OPEN SOURCE PROJECT)**

**SnapRAID** is a free open source project licensed under GPLv3( General Public License Lvl 3) which calculates and checks parity information for disk arrays and does the recovery of upto 6 data disk failures .(Parity information is the calculated value required to restore the data in the disk when the other disk undergoes failure. SnapRAID is also called folder based backup tool.

It is a free open source software that can be accessed by the public that is used for the recovery of data in the data disk and analysis of parity information.

**License:** GPL lvl3 (General Public License Level 3)

**Websites :**  https://github.com/SnapRaid-project-analysis/

<https://snapraid.it>

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**Features :**

**1)It hashes the data which promotes data integrity and prevents silent corruption**

**2)If there is failure of number of disks with respect to the recovery you will only lose the data in the failed disk**

**3)The disk data array can be of different sizes**

**4)You can add disks also as it promotes data security too**

**5)It follows UNIX philosophy:**

**Robustness: consistency of the disk and the storage capacity restoration**

**Reliability: makes it realiabvle for different people to use due to its stability**

**Efficiency: allows the optimization of the data disk**

**Advantages:**

**1)It does not have vendor lock in of data.**

**2)You can add any number of data disks**

**3)The data disks comes in different sizes**

**Disadvantages:**

**1)It does have real time recovery**

**2)It cannot do stripping of data ( as in RAIDS you need stripping of data)**

**3)Each disk has a different files system which makes it a little complex**

**Architecture:**

**1)It consists of data disks that have parity information of data**

**2)SnapRAID allows the restoration of the data disk when the other have failed**

**3)Its used in Merger FS and ZFS**