

How to Create a RAID volume on my EON?

Currently, as of Jan 2022, [openmediavault](#) doesn't support the creation of the RAID via USB, so you need to use terminal commands:

A great link with all information can be found here.

https://www.ricmedia.com/build-raspberry-pi3-raid-nas-server/#Setup_RAID-0_Volume

Connect to your PI unit via your preferred SSH or locally with a KB

Login to your devices and be sure to be as Root. As you are using root commands, it's easier to be a root user to start with.

```
sudo -i
```

Update your system and install **mdadm** to the latest build.

```
sudo apt-get update
sudo apt-get upgrade -y
sudo apt-get install mdadm -y
```

Now you can check what devices are detected on the USB using the **blkid** command

blkid

The first two entries below are the MicroSD Card system volumes.

```
/dev/mmcblk0p1: LABEL_FATBOOT="boot" LABEL="boot" UUID="E183-6233" BLOCK_SIZE="512" TYPE="vfat" PARTUUID="f1b709c5-01"
/dev/mmcblk0p2: LABEL="rootfs" UUID="1232a209-2596-48f0-a078-731d10b918ad" BLOCK_SIZE="4096" TYPE="ext4" PARTUUID="f1b709c5-02"
/dev/sda: UUID="9a87989d-4416-418c-a4e1-519f7eee35ec" UUID_SUB="bd60ae45-dc12-abb8-c9fa-86bc81889694" LABEL="raspberrypi:vol1"
TYPE="linux_raid_member"
/dev/sdd: UUID="9a87989d-4416-418c-a4e1-519f7eee35ec" UUID_SUB="cfa06626-2185-0f75-ee37-0e6f530e89a5" LABEL="raspberrypi:vol1"
TYPE="linux_raid_member"
/dev/sdb: UUID="689ce03f-1702-4659-2a84-44945406b248" UUID_SUB="a86057f4-f98a-2a07-c62b-38402b09af89" LABEL="raspberrypi:vol2"
TYPE="linux_raid_member"
/dev/sdc: UUID="689ce03f-1702-4659-2a84-44945406b248" UUID_SUB="09d326e7-02fd-9e0b-2541-080064541fb5" LABEL="raspberrypi:vol2"
TYPE="linux_raid_member"
```

(Note: if you are booting your RPI via the internal USB header, the results may differ slightly from the above)

The **EON** has four connectors for HDDs, they should report to the system as `/dev/sda`, `/dev/sdb`, `/dev/sdc` & `/dev/sdd`

So, this means `/dev/sda` `/dev/sdd` are the 3.5in HDD slots, and `/dev/sdb` & `/dev/sdc` are the 2.5in HDD slots.

Note: if you have no UUID or have some volumes present, it's best to wipe the disk before trying to build an array.

So, I created a mirror for both sets of drives, and used the following commands.

```
mdadm --create --verbose /dev/md/vol1 --level=1 --raid-devices=2 /dev/sda /dev/sdd
mdadm --create --verbose /dev/md/vol2 --level=1 --raid-devices=2 /dev/sdb /dev/sdc
```

Note: You will be prompted for some confirmation prompts and even notice if the drives have existing data on them, then you need to clean the drives (see below)

```
mdadm: partition table exists on /dev/sdb
mdadm: partition table exists on /dev/sdb but will be lost or
meaningless after creating array
mdadm: Note: this array has metadata at the start and
may not be suitable as a boot device. If you plan to
store '/boot' on this device please ensure that
your boot-loader understands md/v1.x metadata, or use
--metadata=0.90
mdadm: partition table exists on /dev/sdc
mdadm: partition table exists on /dev/sdc but will be lost or
meaningless after creating array
mdadm: size set to 976630464K
```

mdadm: automatically enabling write-intent bitmap on large array

As soon as you create these, OpenVault media will pick up the volumes

Continue creating array? **Y (you will be prompted here to accept the creation)**

mdadm: Defaulting to version 1.2 metadata

mdadm: array /dev/md/vol2 started.

Check RAID Details via OMV

The screenshot shows the OMV RAID Management interface. On the left sidebar, 'RAID Management' is circled in red with a '1'. The main content area shows a table of RAID arrays. The row for '/dev/md126' is highlighted in yellow and circled in red with a '2'. Above the table, there are several icons, with a red circle and '3' around the trash icon. The table has columns for 'Device', 'State', and 'Le'. The data for '/dev/md127' is: 'clean, resyncing (28.6% (1677203008/586039046, finish=452.5min speed=154062K/sec)'. The data for '/dev/md126' is: 'clean'. Below the table, it says '1 selected / 2 total'.

Device	State	Le
/dev/md127	clean, resyncing (28.6% (1677203008/586039046, finish=452.5min speed=154062K/sec)	
/dev/md126	clean	

Clean Drives which are not empty via OMV:

The screenshot shows the OMV Disks interface. On the left sidebar, 'Disks' is circled in red with a '1'. The main content area shows a list of disks. The row for '/dev/sda' is highlighted in yellow and circled in red with a '2'. Above the list, there are several icons, with a red circle and '3' around the search icon. The breadcrumb navigation shows 'Storage | Disks'. The list has a 'Device' header. The data for '/dev/mmcblk0' is: '/dev/mmcblk0'. The data for '/dev/sda' is: '/dev/sda'. The data for '/dev/sdb' is: '/dev/sdb'. The data for '/dev/sdc' is: '/dev/sdc'.

Device
/dev/mmcblk0
/dev/sda
/dev/sdb
/dev/sdc