

Replace bad disk on ZFS pool

Check the status of the pool

```
root@pve:~# zpool status
pool: Mirror1
state: DEGRADED
status: One or more devices could not be used because the label is missing or
invalid. Sufficient replicas exist for the pool to continue
functioning in a degraded state.
action: Replace the device using 'zpool replace'.
see: https://openzfs.github.io/openzfs-docs/msg/ZFS-8000-4j
scan: resilvered 3.16G in 00:14:53 with 0 errors on Sat Jun 1 04:46:50 2024
config:

    NAME                                STATE  READ WRITE CKSUM
    Mirror1                              DEGRADED  0   0   0
    mirror-0                             DEGRADED  0   0   0
    55ee9c9d-1a2e-412d-827e-1875474cdd90 ONLINE    0   0   0
    12500327251565222082                 UNAVAIL  0   0   0 was /dev/disk/by-partuuid/52151b98-6ccc-
4bfd-8318-4e72ced09a5f
```

52151b98-6ccc-4bfd-8318-4e72ced09a5f

Put offline the bad drive

```
root@pve:~# zpool offline Mirror1 12500327251565222082
root@pve:~# zpool status
pool: Mirror1
state: DEGRADED
```

status: One or more devices has been taken offline by the administrator.

Sufficient replicas exist for the pool to continue functioning in a degraded state.

action: Online the device using 'zpool online' or replace the device with 'zpool replace'.

scan: resilvered 2.50G in 00:11:31 with 0 errors on Tue Jun 4 18:33:06 2024

config:

NAME	STATE	READ	WRITE	CKSUM
Mirror1	DEGRADED	0	0	0
mirror-0	DEGRADED	0	0	0
55ee9c9d-1a2e-412d-827e-1875474cdd90	ONLINE	0	0	0
52151b98-6ccc-4bfd-8318-4e72ced09a5f	OFFLINE	0	0	0

Remove drive and insert new one, this case its device /dev/sdc

```
root@pve:~# lsblk | grep sd
sda          8:0  0 111.8G 0 disk
├─sda1       8:1  0 1007K 0 part
├─sda2       8:2  0  1G 0 part /boot/efi
└─sda3       8:3  0 110.8G 0 part
sdb          8:16 0 111.8G 0 disk
└─sdb1       8:17 0 111.8G 0 part /mnt/data
sdc          8:32 0  1.8T 0 disk
sdd          8:48 0  7.3T 0 disk
├─sdd1       8:49 0  7.3T 0 part
└─sdd9       8:57 0   8M 0 part
sde          8:64 0  1.8T 0 disk
├─sde1       8:65 0   2G 0 part
└─sde2       8:66 0  1.8T 0 part
sdf          8:80 0  7.3T 0 disk
├─sdf1       8:81 0  7.3T 0 part
└─sdf9       8:89 0   8M 0 part
```

Retrieve disk ID, our drive is number 9

```
root@pve:~# ls -l /dev/disk/by-id/ | grep ata
ata-ADATA_SU650_2M1629QJGNU1
ata-ADATA_SU650_2M1629QJGNU1-part1
ata-ADATA_SU650_4M10277WTRC7
ata-ADATA_SU650_4M10277WTRC7-part1
ata-ADATA_SU650_4M10277WTRC7-part2
ata-ADATA_SU650_4M10277WTRC7-part3
ata-ST2000DM001-9YN164_Z1E1B9AK
ata-ST2000DM006-2DM164_Z4Z806BP
ata-ST2000DM006-2DM164_Z4Z806BP-part1
ata-ST2000DM006-2DM164_Z4Z806BP-part2
ata-ST8000DM004-2CX188_ZR14EZCZ
ata-ST8000DM004-2CX188_ZR14EZCZ-part1
ata-ST8000DM004-2CX188_ZR14EZCZ-part9
ata-ST8000DM004-2U9188_ZR12SA93
ata-ST8000DM004-2U9188_ZR12SA93-part1
ata-ST8000DM004-2U9188_ZR12SA93-part9
```

replace mirror old device with new device by id and wait for resilver (could take long)

```
root@pve:~# zpool replace Mirror1 52151b98-6ccc-4bfd-8318-4e72ced09a5f ata-ST2000DM001-
9YN164_Z1E1B9AK
root@pve:~# zpool status Mirror1
  pool: Mirror1
 state: DEGRADED
status: One or more devices is currently being resilvered.  The pool will
        continue to function, possibly in a degraded state.
action: Wait for the resilver to complete.
 scan: resilver in progress since Tue Jun  4 18:47:00 2024
       246G / 246G scanned, 211M / 246G issued at 106M/s
       195M resilvered, 0.08% done, 00:39:46 to go
```

config:

NAME	STATE	READ	WRITE	CKSUM
Mirror1	DEGRADED	0	0	0
mirror-0	DEGRADED	0	0	0
55ee9c9d-1a2e-412d-827e-1875474cdd90	ONLINE	0	0	0
replacing-1	DEGRADED	0	0	0
52151b98-6ccc-4bfd-8318-4e72ced09a5f	OFFLINE	0	0	0
ata-ST2000DM001-9YN164_Z1E1B9AK	ONLINE	0	0	0 (resilvering)

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