

CLEAR CHECKSUM ERROR IN FREENAS/TRUENAS

<https://blog.bianxi.com/2021/10/02/clear-checksum-error-in-freenas-truenas/>

Identify error

Errors can be found in TrueNAS Storage section in web page, or use shell in web page, run `zpool status -x` command.

Sample error can be found in following screen. There are two pools got error. The pool0 got two hard disks, first one got 154 checksum errors, second one got one data error.

```
pool: pool0
state: ONLINE
status: One or more devices has experienced an unrecoverable error. An
attempt was made to correct the error. Applications are unaffected.
action: Determine if the device needs to be replaced, and clear the errors
using 'zpool clear' or replace the device with 'zpool replace'.
see: https://openzfs.github.io/openzfs-docs/msg/ZFS-8000-9P
scan: scrub repaired 0B in 00:00:02 with 0 errors on Sat Oct 2 17:39:46 2021
config:

NAME                                STATE  READ WRITE CKSUM
pool0                                ONLINE  0   0   0
mirror-0                             ONLINE  0   0   0
  gptid/bf410fcf-2209-11ec-b8aa-001132dbfc9c ONLINE  0   0  154
  gptid/bfcc498a-2209-11ec-b8aa-001132dbfc9c ONLINE  0   0   0

errors: No known data errors

pool: pool01
state: ONLINE
status: One or more devices has experienced an error resulting in data
```

corruption. Applications may be affected.

action: Restore the file in question if possible. Otherwise restore the entire pool from backup.

see: <https://openzfs.github.io/openzfs-docs/msg/ZFS-8000-8A>

config:

NAME	STATE	READ	WRITE	CKSUM
pool01	ONLINE	0	0	0
gptid/75827da1-207a-11ec-afcf-005056a390b2	ONLINE	0	0	1

errors: List of errors unavailable: permission denied

errors: 1 data errors, use '-v' for a list

For second error, impacted file can be found using `zpool status -v` command

```
root@truenas[~]# zpool status -v pool01
pool: pool01
state: ONLINE
status: One or more devices has experienced an error resulting in data
corruption. Applications may be affected.
action: Restore the file in question if possible. Otherwise restore the
entire pool from backup.
see: https://openzfs.github.io/openzfs-docs/msg/ZFS-8000-8A
scan: scrub repaired 0B in 00:23:22 with 1 errors on Sat Oct 2 21:53:02 2021
config:

NAME                                STATE  READ WRITE CKSUM
pool01                               ONLINE  0   0   0
gptid/75827da1-207a-11ec-afcf-005056a390b2  ONLINE  0   0   1

errors: Permanent errors have been detected in the following files:

/mnt/pool01/download/file.1
root@truenas[~]#
```

Clear error

Run following command to clear the error

```
zpool clear <pool_name>
```

For the pool has data error, which has any file impacted. Delete or overwrite the file.

Then scrub the pool

```
zpool scrub <pool_name>
```

Replace disk

To replace disk, run following command, c0t0d2 is a new disk to replace c0t0d0

```
zpool replace c0t0d0 c0t0d2
```

If the disk replaced at same location, then run following command

```
zpool replace c0t0d0
```

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