

Zfs



context

dit document beschrijft de werking van ZFS op FreeBSD

kenmerken

1. fungeert als **zowel** fileysteem als volume manager (RAID)
2. ZFS beheert disken in een **pool** (zpool)
3. een pool bevat meerdere **datasets** waarbij je per dataset specifieke file system eigenschappen kunt toekennen (compression, deduplication, copies, ...).
Binnen 1pool kan je dus verschillende bestandssystemen maken!
4. laat toe **snapshots** van datasets te maken waardoor je makkelijk kan teruggaan naar een vorige situatie.
De snapshot groeit enkel als er ook data worden gewijzigd.
5. alle data wordt voorzien van een **checksum** waarbij ZFS fouten die worden ontdekt (data corruption) eigenhandig **corrigeert**.

pool

commando	betekenis	voorbeeld																																																																																																			
zpool list -v	overzicht ZFS pools	<table border="1"> <thead> <tr> <th>NAME</th> <th>SIZE</th> <th>ALLOC</th> <th>FREE</th> <th>CKPOINT</th> <th>EXPANDSZ</th> <th>FRAG</th> <th>CAP</th> <th>DEDUP</th> <th>HEALTH</th> <th>ALTROOT</th> </tr> </thead> <tbody> <tr> <td>serverData</td> <td>199G</td> <td>928M</td> <td>199G</td> <td>-</td> <td>-</td> <td>0%</td> <td>0%</td> <td>1.00x</td> <td>ONLINE</td> <td>-</td> </tr> <tr> <td>da3</td> <td>99.5G</td> <td>448K</td> <td>99.5G</td> <td>-</td> <td>-</td> <td>0%</td> <td>0%</td> <td></td> <td></td> <td></td> </tr> <tr> <td>da4</td> <td>99.5G</td> <td>480K</td> <td>99.5G</td> <td>-</td> <td>-</td> <td>0%</td> <td>0%</td> <td></td> <td></td> <td></td> </tr> <tr> <td>userData</td> <td>3.9G</td> <td>464K</td> <td>9.00G</td> <td>-</td> <td>-</td> <td>0%</td> <td>0%</td> <td>1.00x</td> <td>ONLINE</td> <td>-</td> </tr> <tr> <td>da1</td> <td>4.50G</td> <td>256K</td> <td>4.50G</td> <td>-</td> <td>-</td> <td>0%</td> <td>0%</td> <td></td> <td></td> <td></td> </tr> <tr> <td>da2</td> <td>4.50G</td> <td>288K</td> <td>4.50G</td> <td>-</td> <td>-</td> <td>0%</td> <td>0%</td> <td></td> <td></td> <td></td> </tr> <tr> <td>zroot</td> <td>5.50G</td> <td>1.73G</td> <td>3.77G</td> <td>-</td> <td>-</td> <td>7%</td> <td>31%</td> <td>1.00x</td> <td>ONLINE</td> <td>-</td> </tr> <tr> <td>da0p3</td> <td>5.50G</td> <td>1.73G</td> <td>3.77G</td> <td>-</td> <td>-</td> <td>7%</td> <td>31%</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	NAME	SIZE	ALLOC	FREE	CKPOINT	EXPANDSZ	FRAG	CAP	DEDUP	HEALTH	ALTROOT	serverData	199G	928M	199G	-	-	0%	0%	1.00x	ONLINE	-	da3	99.5G	448K	99.5G	-	-	0%	0%				da4	99.5G	480K	99.5G	-	-	0%	0%				userData	3.9G	464K	9.00G	-	-	0%	0%	1.00x	ONLINE	-	da1	4.50G	256K	4.50G	-	-	0%	0%				da2	4.50G	288K	4.50G	-	-	0%	0%				zroot	5.50G	1.73G	3.77G	-	-	7%	31%	1.00x	ONLINE	-	da0p3	5.50G	1.73G	3.77G	-	-	7%	31%			
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zpool destroy <naam>	verwijderd zpool	zpool destroy userData																																																																																																			

dataset

quota

To set a quota of 10 GB for the user named foo on a ZFS dataset, run the following command:

```
# zfs set userquota@foo=10G pool/home/foo
```

The zfs userspace command can display the quota and current space usage:

```
# zfs userspace pool/home/foo
```

To unset a quota, assign “none” as the value.

1. - Benedict Reuschling bcr@FreeBSD.org

snapshots

meer info

- [Quick Start Guide](#)
- [ZFS cheat sheet](#)

[freebsd](#), [zfs](#), [disk](#)

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