



Verify that deduplicated volumes and aggregates contain sufficient free space

ONTAP 9

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Before upgrading ONTAP, you must verify that any deduplicated volumes and the aggregates that contain them have sufficient free space for the deduplication metadata. If there is insufficient free space, deduplication will be disabled when the ONTAP upgrade is completed.

Each deduplicated volume must contain at least 4% free space. Each aggregate that contains a deduplicated volume must contain at least 3% free space.

- 1. Determine which volumes are deduplicated: `volume efficiency show`
- 2. Determine the free space available on each volume that you identified: `vol show -vserver Vserver_name -volume volume_name -fields volume, size, used, available, percent-used, junction-path`

Each deduplicated volume must not contain more than 96% used capacity. If necessary, you can increase the sizes of any volumes that exceed this capacity.

Logical storage management

In this example, the percent-used field displays the percentage of used space on the deduplicated volume.:

vserver	volume	size	junction-path	available	used	percent-used
cluster1-01	vol0	22.99GB	-	14.11GB	7.73GB	35%
cluster1-02	vol0	22.99GB	-	12.97GB	8.87GB	40%
2 entries were displayed.						

- 3. Identify the free space available on each aggregate that contains a deduplicated volume: `aggr show -aggregate aggregate_name -fields aggregate, size, usedsize, availsize, percent-used`

Each aggregate must not contain more than 97% used capacity. If necessary, you can increase the sizes of any aggregates that exceed this capacity.

Disk and aggregate management

In this example, the percent-used field displays the percentage of used space on the aggregate containing the deduplicated volume (aggr_2):

```
aggr show -aggregate aggregate_name -fields
aggregate,size,usedsize,availsz,percent-used
aggregate          availsz percent-used size      usedsize
-----
aggr0_cluster1_01  1.11GB    95%          24.30GB  23.19GB
aggr0_cluster1_02 1022MB    96%          24.30GB  23.30GB
2 entries were displayed.
```

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