



PROFESSIONAL SERVICES TECH NOTE #011

Adding Disks to an Aggregate RAID Group

The Concept

Many aggregates are not initially created at the 16TB maximum size due to a lack of available spare disks. After purchasing new disk shelves you want to ensure performance is not impacted after growing an aggregate. Performance in aggregates is tied to RAID groups and how large they are. When growing an aggregate, you want to plan how to add them to the RAID groups rather than relying on Data ONTAP to provide the best solution.

Examples

```
fas1> aggr status -s
list all available spare disks. Try to leave one spare for every 2 disk shelves.
fas1> aggr options aggr1 raidsize
displays maximum number of disks comprises a raid group in aggr1.
fas1> aggr status aggr1 -r
lists raid groups in the aggregate and the disks composing each raid group
fas1> aggr add aggr1 -g rg2 5@272
add 5 disks to raid group 2 in aggr1. If you don't specify a raid group then ONTAP/FilerView will add them to
the most recently created raid group.
```

What It Means To You

“Short” RAID groups provide a lower amount of disk I/O. They may also reduce performance by becoming “hot” (handling disproportional amount of read/write operations). Therefore; you want to maximize each RAID group before creating a new one. New raid groups should be at least ½ the size of the raidsize aggregate option setting (e.g., raidsize=16 you should create new raid groups of 8 or more disks). This same process can be used to expand aggregates after upgrading to Data ONTAP 7.3 to obtain 16TB of usable disk space.

More Information

See the Data ONTAP Storage Management Guide for more information:

http://now.netapp.com/NOW/knowledge/docs/ontap/rel7261/html/ontap/smg/provisioning/task/t_oc_prov_aggr-increasing-size.html

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