

# **SCI StorInt™ Dispatch**

## **New EMC BRS announcements - DD670 and DLm960 Deduplication Option**

EMC® recently announced a new Data Domain appliance, the DD670, and a new deduplication option for their Disk Library for mainframe (DLm 960).

### **Data Domain DD670**

EMC has leveraged the latest quad-core Intel processor to produce the DD670, a new midrange deduplication appliance. The DD670 now supports up to 5.4 TB/hr of aggregate throughput using the new EMC DD Boost software option (previously discussed<sup>1</sup>). The new system also has more than twice the maximum capacity of the closest previous Data Domain midrange appliance. The DD670 scales from 12 TB to 76 TB raw capacity (8.2 TB to 56 TB usable capacity) supporting 1 or 2TB SATA external disks. As for front-end interfaces, the DD670 includes three I/O slots that can support up to six 10 Gb Ethernet ports for IP connectivity or up to four 8 Gb fibre channel ports for VTL connectivity. The system also supports simultaneous use of Ethernet and fibre channel connectivity.

The entry level DD670 includes 12-1TB disk drives in a rack-mountable server and can be extended up to 76 TB of raw capacity with 2 – 32 TB storage expansion packs, each with 16 – 2 TB SATA disks. The new 2TB drive expansion shelf option will also be available for the Data Domain Global Deduplication Array and the DD880 appliance.

EMC provided performance comparisons that showed that the DD670 (using the custom DD Boost data access method) had over twice the maximum aggregate performance of its nearest competitor (using standard NFS). Likewise, in FC VTL mode, the DD670 had ~50% better performance than its nearest competitor.

### **Deduplication for mainframes with the Deduplication Storage Expansion Option for the DLm960**

EMC also announced a new deduplication option for the DLm960. The Deduplication Storage Expansion option adds a Data Domain DD880 system as an additional storage repository alongside the current Celerra NS960. Recall that the DLm960 is a virtual tape library and has virtual tape engines that support hardware compression. With the new Deduplication Storage Expansion option, one can now designate via policy whether a virtual tape volume will be stored on the current NS960 or be deduplicated by going to the new DD880 repository.

Virtual tape volumes going to the DD880 are not compressed by the Virtual Tape Engines but will fully utilize the standard Data Domain compression and deduplication capabilities. Also, Data Domain replication facilities can be used in combination with Celerra replication to mirror

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<sup>1</sup> Can be found at <http://silvertontconsulting.com/blog/2010/05/14/fast-cache-boost-day2emcworld-2010/>

DLm960 Celerra tape volume repositories and Deduplication Storage Expansion option data to an alternate site.

Historically, mainframes have used tapes as both a temporary repository for large datasets and a semi-permanent repository for backup data. In the first case, deduplication may not be as useful a strategy as this data does not have much redundancy or duplication. But when mainframe tapes are used for backup data then deduplication technology can be just as effective here as it is for open systems.

## **Announcement significance**

EMC rolling Data Domain deduplication out to the mainframe space is not surprising. However, the fact that they elected to have separate/distinct storage repositories for tape data both with and without deduplication shows an appreciation for mainframe tape usage.

The new DD670 is a good addition to the middle of the Data Domain appliance space. We prefer seeing comparisons of the native FC/VTL performance, as there are few systems that natively support OST with deduplication and only Data Domain has the new DD Boost functionality. Therefore, a performance comparison of FC/VTL performance is more of an apples-to-apples comparison of performance. EMC has been promoting the performance advantages of its SISL architecture for years and with this announcement, EMC delivered 50% faster performance than their nearest competitor using FC, which is very impressive.

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