

SCI StorInt™ Dispatch – HP080226 Announcing New MSA2000 and EVA4400

HP had announced earlier this month a new MSA2000 and today announced the new EVA4400 storage subsystem. The MSA is targeted at small to midsize customers or departments of enterprise customers needing less than 36TB of storage and the EVA is targeted at customers needing up to 96TBs of storage, with increased performance and enterprise class availability options. HP reiterated their position as the number one volume storage vendor, i.e., roughly every other storage subsystem installed is an HP subsystem. Also, HP is number one in capacity shipped but this includes storage shipped with HP ProLiant servers.

EVA4400 disk subsystem

With the EVA4400, HP releases the first in the next round of refreshes to their EVA product line, with new EVA6x00 and EVA8x00 refreshes to be supplied later. EVA4400 has support for 1TB FATA as well as 4Gb/s FC backend. The new backend roughly doubles performance and the new drives increases capacity.

HP also released a new study that shows the EVA4400 is five times easier to manage than EMC and NetApp comparable products. The study measured normal storage administration activities by counting clicks, number of operations, number of steps, and clocking activity durations. The most significant improvement was in the duration to complete an activity. HP was quick to add that this did not include SnapShot as they were only two times faster than NetApp but other normal storage administration functions were included.

HP has defined specific solution blocks for popular applications that show best in class implementations of EVA4400, e.g. EVA4400 used in VMware IT consolidation, Microsoft Exchange, multiple Oracle applications, SAP/ERP, and HP PolyServe NAS solutions. Starter kits and preconfigured channel ready versions of EVA4400 are also available and can be customer installed if necessary.

EVA onboard storage virtualization can automatically stripe all LUN data across a disk group. With as few as one or two disk groups per EVA, stranded capacity is greatly reduced. New drives added to the array can be automatically populated with LUN data from the disk group. VRAID 1, VRAID 1+0, VRAID 5, and VRAID 5+0 are supported.

Finally, EVAs have historically delivered 5-9's reliability and as proof the 20,000 EVAs on HP support average five minutes or less of unplanned downtime per year.

MSA2000 disk subsystem

The new MSA2000 provides more attachment flexibility than the EVA or previous versions of MSA as it supports FC (MSA2000fc), iSCSI (MSA2000i) and soon SAS (to be announced) front-ends. MSA2000's back-end is 3Gb/s SAS with support for 1TB SATA drives and 4Gb/s FC front-end. As such, MSA2000 supports up to 4X the

bandwidth of the prior generation. The product supports RAID 0, 1, 3, 5, 6, 10, and 50. HP has also increased the number of LUNs to 256, LUN size to 16TB and the number of hosts to 64 that can be supported by the MSA2000.

MSA2000 supports both single and dual controller with active/active mode for availability. A unique feature of the product is support for a transportable cache that can hold data indefinitely and can be removed from one failed controller and inserted in another MSA2000 to copy the write data. This assumes the failing controller is replaced and then the cache moved to the new operational controller, then on boot-up the write data would be flushed to the backend disk.

In addition, HP's SAS push in this space is also unique. HP enjoys the relatively rare advantage of being both a server and storage vendor and one can see their advanced thinking here. A SAS attached MSA2000 should be less expensive than either FC or iSCSI from both the storage and server, and just as easy to use.

Announcement significance

HP maintains their lead in the SMB market by reducing cost, increasing performance and refreshing technology of their MSA and EVA storage products while maintaining the ease of use the SMB market demands. The EVA is starting to emerge from the marketing shadows at HP and the MSA2000 shows some of HP's advanced thinking needed to succeed in this market space. Both announcements show HP's focus on storage leadership now and for the near future.

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