

POINT, COUNTERPOINT

DMX-3

USP 1100

Q: WHAT'S YOUR KEY TO HIGH PERFORMANCE FOR YOUR ARRAY?

Dave Donatelli, EMC's executive vice president of storage product operations: Quite simply, the key is our patented DMX architecture, combined with advanced software. The Symmetrix DMX-3's point-to-point interconnect architecture provides the highest levels of predictable performance, and can tolerate dynamic workloads and bursts of unexpected activity.

Hu Yoshida, Hitachi Data Systems (HDS) Corp.'s chief technology officer: The limiting factor in any high-end, cache-centric disk array is the bandwidth into and out of cache. The USP is capable of 256 concurrent memory operations—800% more than DMX-3, which is limited to only 32 paths to cache.

Q: YOUR THOUGHTS ON VIRTUALIZATION FOR YOUR ARRAY?

Donatelli: The concept of using a high-end storage array to virtualize other high-end arrays as HDS suggests simply doesn't work. One hundred percent of the IO has to go through the virtualized controller. Does anybody think that a single array can keep up with multiple, high-end arrays behind it? It becomes a choke point. It also simply can't virtualize that many volumes. A single Symmetrix DMX-3 can handle up to 64,000 volumes. But the HDS USP is only capable of virtualizing a small fraction of those. The case of using a high-end array to virtualize ATA-based arrays is also highly ineffective and very expensive. It's much easier and more cost effective to add high-capacity drives and tier storage within a single array.

Yoshida: The simplest approach to storage virtualization is to extend existing control-unit functions to other storage disk arrays by attaching them to the USP. The DMX has a 20-year-old cache architecture that still requires .BIN files to map configurations into cache and can't support external attach [storage]. Therefore, they must try to reinvent all the capability that's in DMX and port this to appliances that sit in the network. This adds complexity and vendor lock[-in].

Q: IN WHAT USAGE CASES DOES YOUR PRODUCT WIN THE MOST DEALS?

Donatelli: Customers have made us No. 1 because we provide the highest levels of availability, performance and protection for their most mission-critical data.

Yoshida: Customers have the ability to breathe new life into existing assets; they now have the option of investing only in the part of the array subsystem that delivers most of the value, and they save money as they're no longer forced to buy hulking collections of drives just to obtain the latest enterprise functionality.

Q: CAN YOU TELL US SOMETHING THE PRODUCT WILL IMPROVE ON IN 2007?

Donatelli: With RSA and Network Intelligence security technology now part of the EMC portfolio, the bar for high-end storage functionality is about to be set even higher.

Yoshida: Stay tuned!

Q: ANY PREDICTION ABOUT THE COMPETITOR'S PRODUCT IN 2007?

Donatelli: We prefer to stay focused on meeting the needs of our customers and addressing market requirements rather than trying to predict what other vendors will do.

Yoshida: It [EMC's DMX-3] will remain a monolithic dinosaur.