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Everything Old Shall Be New Again: EMC Introduces Symmetrix DMX
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EMC has introduced Symmetrix DMX series, the newest members of the company's signature Symmetrix family of information storage systems. The new DMX series is based on EMC's new Direct Matrix Architecture, which the company claims provides new levels of scalability, performance, availability, functionality, and affordability for high-end data storage.

The EMC Symmetrix DMX is available in the following models:

- Symmetrix DMX800: Described by EMC as the world's first rack-mount high-end storage system, the DMX800 can be installed in non-raised floor data centers in distributed or centralized locations to support open systems apps and enterprise infrastructure. The DMX800 scales from eight to sixteen front-end ports, from 1.2 to 17.5TB of raw capacity, and from 4 to 32GB of global cache for open systems.

- Symmetrix DMX1000: A single bay integrated system, the DMX1000 scales from eight to forty-eight front-end ports, from 3.5 to 21TB of raw capacity, and from 4 to 64GB of global cache for mainframe and open systems environments.

- Symmetrix DMX2000: A dual bay integrated system, The DMX2000 scales from eight to ninety-six front-end ports, from 7 to 48TB of raw capacity, and from 8 to 128GB of global cache for mainframe and open systems environments.

EMC's Direct Matrix Architecture provides a solution that the company claims eliminates performance ceilings inherent in bus- and switch-based storage architectures. The matrix interconnect is comprised of 128 point-to-point connections that directly link each of the front-end channel directors to every region of global cache memory, and every region of global cache memory to each back-end disk director. Each connection is capable of transporting data at 500MB per second, for a total bandwidth path of 64GBps, and total aggregate data path and messaging bandwidth of 72GBps. According to EMC, the Direct Matrix Architecture is capable of supporting more than 2,048 drives using available technology, and provides a three- to six-fold performance increase in mixed workload environments over previous Symmetrix 8000 systems.

The Symmetrix DMX series offers 100% EMC software compatibility and consistency with existing Symmetrix systems, and can be managed with EMC's ControlCenter software, as well as other vendors' management applications. In addition, DMX systems are designed for full compliance with the Storage Management Initiative (SMI, previously CIM/Bluefin) specifications.

Pricing/Availability

All Symmetrix DMX systems are immediately available with list prices ranging from $439,000 to $2.5 million, based on configuration. Support for FICON mainframe connectivity will be available in the third quarter of 2003.

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Computer hardware vendors are seldom if ever shy about trumpeting new advances and additions to their solutions. In fact, a brief survey of high tech press releases offers a baffling hodgepodge of geekspeak and

naked PR bravado that usually delivers more IT attitude than provable business benefits. As a result, it is wise to approach any press release dressed in metaphorical sou'wester, gum boots, and elbow-length gloves, rather than risk being spattered with excess technomarketing gibberish. So professional skepticism fully in place, what should one make of EMC's Symmetrix DMX series?

First, to establish a couple of ground rules, we believe data storage is not really about storage but about access. A simple measure of any IT solution is the degree to which it enhances existing business processes and enables new business practices. Additionally, when a vendor introduces the next generation of an existing solution, careful attention should be paid to the homage it pays to previous products and their users. From both of these standpoints, we see Symmetrix DMX as a formidable offering that should please existing Symmetrix users, could drive a host of new clients EMC's way, and will likely offer fits to the company's high-end storage competitors (i.e., HDS and IBM).

On the storage-as-access side, Symmetrix DMX offers a pair of particularly interesting advances. First, the rack-mount DMX800 allows Symmetrix users to deploy or distribute focused high-end storage solutions without the costs and hassles associated with raised floor datacenter environments. While vendors including EMC have long offered clients distributed storage models, they have tended to provide mid-range storage arrays (such as EMC's CLARiiON arrays) as the distributed agents that deliver accumulated data back to Symmetrix-based datacenters. What the DMX800 provides that traditional distributed storage solutions do not is full integration with and support for all Symmetrix applications and workloads, and a potentially more powerful model for consolidating and protecting all of an enterprise's information assets. Additionally, if EMC's Direct Matrix Architecture works as impressively as advertised, it will significantly enhance a range of critical processes including data protection and back up, disaster recovery, and business continuity.

What does the DMX series provide users of previous Symmetrix generations? Two benefits in particular. Primarily, given its 100% compatibility (based on EMC's Enginuity operating environment) with Symmetrix products, DMX offers EMC customers a host of powerful, scalable, and flexible new solutions than can be easily integrated with existing Symmetrix installations. Additionally, EMC's decision to utilize the same disk array enclosure for both the DMX800 and the CLARiiON CX600 will allow customers with existing distributed CLARiiON storage environments to convert to Symmetrix DMX by simply swapping controllers. While some may see this as an opportunity for a potentially dangerous overlap between the CLARiiON and Symmetrix markets, we believe the two solutions serve discreet user sets. While the DMX800 might help to drive Symmetrix capabilities into the middle market, its cost will likely require serious strategic consideration among potential mid-market buyers.

What does this mean in sum? The data storage market has been increasingly bloody over the past two years, as vendors who largely ignored or dismissed storage came to recognize it as key to enterprise business solutions and IT sales. Once alone at the top of the high-end storage mountain, EMC has seen its formidable market share erode as others have scrambled toward the summit. By significantly improving both the data capacity and throughput performance of its high-end storage solutions, EMC has provided existing customers myriad reasons to stick around, and offered potential customers a host of reasons to consider a change. What does this mean in practical terms? While competition between EMC, HDS, and IBM remains fierce in the high-end market, all three companies have focused an increasing amount of energy and attention to mid-tier offerings. In EMC's case, the company's strategic partnership with Dell has yielded notable success for both companies. With Symmetrix DMX, EMC appears to have regained the lead in high-end storage performance. Certain IT trends, particularly the continuing drive toward IT business solutions across a host of industries, rejuvenation of the mainframe market, and growing demand for commercial high performance computing solutions, are right up the DMX alley. But exactly how enhanced performance translates in a highly competitive and difficult market is uncertain. With Symmetrix DMX, EMC has created an IT solution that is likely to turn some enterprise heads. Whether those same businesses will open their wallets remains to be seen.

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