

Weekly Review

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In this issue:

- . IBM Continues to Expand
Midrange Storage**

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IBM Continues to Expand Midrange Storage

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Over the past several years, one of IBM's continuing areas of emphasis has been midrange storage. Thus, it should come as no surprise that the company has launched the latest model in its DS3000 line — the DS3500 Express. In addition, IBM announced the Tivoli Storage Productivity Center for Disk Midrange Edition software that works with the DS3500, as well as its other midrange storage products.

IBM has four primary disk array storage families: the DS3000, the DS5000, and the DS8000, along with XIV (there is also a DS4000 family, but it is being phased out). IBM views the DS3000 family as its entry-level storage system, the DS5000 as the high-end mid-range family and the DS8000 as the enterprise-class storage family.

But the term "entry-level," while accurate in the sense that it is IBM's low-end line in terms of capacity, performance, and functionality, is also a little misleading, as IBM's DS3000 solutions offer capacity, performance, and functionality that would have been available only in much higher-end products only a few years ago. Those new functions and features are important as midrange companies need to keep up with the same explosive data growth that has affected the largest companies.

The just-announced DS3500 is not intended to immediately replace existing DS3200, DS3300 and DS3400 models as each has its separate niche. Apart from that, the news is that IBM is emphasizing the continuing growth of SAS (Serial-Attached SCSI). Compared to FC (Fibre Channel), changes in SAS are more evolutionary than revolutionary. The DS3500 Express doubles the capacity and performance of any previous product in the DS3000 family (for example, enabling the use of up to 96 drives instead of 48 drives).

The DS3500 Express does offer multi-protocol support however, that gives it great flexibility for use as a DAS (Direct Attached Storage) solution or a SAN (Storage Area Network) environment or both concurrently. The DS3500 Express features a starting point of four 6 Gbps SAS ports, as well as 8 Gb FC and 1 Gb iSCSI, which enables it to provide higher throughput performance than previous models in the DS3000 family.

In addition to the hardware platform, IBM's Tivoli Storage Productivity Center Midrange Edition (TPC for Disk MRE for short) is now the management platform for all of its midrange products. This offers the same features and functions as the enterprise version of TPC for Disk, which provides SRM (Storage Resource Management) capabilities for managing storage infrastructures from a single console.

Frankly, no midrange storage array customer should be without TPC for Disk MRE or its equivalent for a number of reasons, including:

1. The ability to provide performance, device configuration, and SAN topology reporting across all midrange arrays.
2. Improving SAN availability through real-time monitoring and fault identification.
3. Enabling event-based actions based upon threshold policies after receiving alerts.

The basic difference between the enterprise edition and midrange edition of TPC for Disk is one thing — price. In most situations (but not all), the cost of TPC for Disk MRE is less than

half (and in some cases much lower) of the enterprise edition. Pricing is based upon the number of storage devices (such as enclosures, not disks themselves) that are used rather than the total number of TBs. The list price for a software license for each storage device is \$8099, which doesn't sound inexpensive, but it is all relative.

Moreover, although TPC for Disk MRE is not exclusive to the DS3500 Express, it could also stimulate hardware sales, as well. The reason is simple. The customer might find the DS3500 Express very attractive in terms of features and functions but might also need the equivalent of a TPC for Disk MRE to achieve SRM for what it might consider a large configuration. The enterprise edition price might exceed the price a customer had in mind for SRM software for a particular hardware configuration (taking into account the percentage of the software cost as a percentage of the hardware cost). Conceivably, that could be a deal breaker for the hardware as the software is also needed. The TPC for Disk MRE price has a better chance of being acceptable and therefore could improve the acceptability of the DS3500 Express.

Mesabi Musings

So why is IBM's new DS3500 Express relevant to the larger market? Midrange market is a battleground for large IT vendors, as well as storage specialists that live or die in that space. Competition in the mid-market is heating up among vendors of every sort, but opportunities are finite and the number of vendors who want them is large. Moreover, mid-market success tends to require an indirect sales strategy, using partners rather than direct sales forces, and its clients have greater cost sensitivity compared to larger organizations.

IBM has strong indirect sales channels (and the use of the word Express in conjunction with DS3500 Express is related to the bundling the solutions for the channel). This announcement demonstrates how IBM is trying to supply its channel with the hardware and software they need to compete, such as the price for the TPC for Disk MRE as compared to the enterprise version of the software. Now, customers do not like to be pigeonholed and do not necessarily follow vendors' market segmentation. For example, enterprise customers have long used "midrange" storage for applications for which those solutions were good enough. In IBM's situation, some customers may want the TPC for Disk MRE due to its low price and find the DS3500 Express good enough. Although that might cannibalize some sales of higher-priced storage, IBM is likely to consider it better to cannibalize itself rather than have someone else do the job.

After all, it all gets back to the topsy-turvy Alice in Wonderland world of IT where deflation in prices or continuing to get escalating technology features for the same price is considered a good thing (in contrast to what economists worry about if deflation occurred in the broader economic world). IBM, along with all of its competitors, are betting that what is good for its customers in terms of price/performance is also good for their own bottom lines. IBM has had good storage sales lately and with its strong channel, its new DS3500 Express, combined with TPC for Disk MRE, would seem to be in a good position to succeed.

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The Mesabi Group (www.mesabigroup.com) helps organizations make their complex storage, storage management, and interrelated IT infrastructure decisions easier by making the choices simpler and clearer to understand.