

Data Domain Touts 'Industry's Most Scalable' Controller

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The DD580 storage controller can deliver as much as 800GB per hour of aggregate deduplication throughput, Data Domain says.

Enterprise storage vendor Data Domain, which has made data deduplication the centerpiece of its identity, introduced on May 7 a new inline controller that it calls "the industry's most scalable" for enterprise data protection.

The DD580 storage controller can deliver up to 800GB per hour of aggregate deduplication throughput using fewer than 15 SATA (Serial ATA) RAID-6 protected disks. The DD580 is supported by Data Domain's own SISL (Stream-Informed Segment Layout) scaling architecture, which uses multicore processor architectures rather than oversized storage subsystems for system throughput, a company spokesperson said.

Deduplication is a method by which all redundant copies of data and files are eliminated in order to improve overall data accessibility, use less storage hardware and drive down operational costs. This approach can condense data loads by anything from 20 to 70 percent, and the savings effect on data center power and cooling demands is often substantial, according to several companies eWEEK has contacted.

Data Domains' DD580 is another case of storage server controllers getting bigger, faster and better, Heidi Biggar, an analyst for Enterprise Strategy Group, told eWEEK.

"Data Domain continues to address the scalability demands of large environments," Biggar said. "The new DD580 retains the simplicity of Data Domain's appliances while raising the bar significantly in terms of dedupe performance. In addition, Data Domain offers the advantage of immediate replication capabilities for DR applications."

A fully configured Data Domain DDX Array with 16 DD580 controllers increases throughput performance to more than 12TB per hour and offers up to 20 petabytes of capacity for long-term online retention, the spokesperson said.

Like all Data Domain systems, the new DD580 is flexible enough to be implemented in existing user environments without disruption, and supports all leading backup software products on any storage fabric, the spokesperson said. The DD580 is available as a plug-and-play appliance or as the DD580 Gateway, which supports external Fibre Channel or SATA disk arrays.

With its integrated Data Domain Replicator option, the DD580 can automate WAN vaulting for use in DR, remote office backup or multisite tape consolidation.

All Data Domain systems deduplicate data inline before storing to disk and replicate deduplicated data while the backup is in progress. This means disaster recovery sites sync up faster with primary storage than before, the spokesperson said.

Data Domain solutions are designed to meet "storage of last resort" data protection standards. Data Domain offers the only inline deduplication system that integrates RAID-6 level protection, battery-backed NVRAM (nonvolatile RAM) caching and end-to-end consistency with data integrity verification at backup time, the spokesperson said.

"We've had the Data Domain DD580 in our data center for testing since January," said Eric Eckman, IT Manager for Atheros Communications, a developer of advanced wireless products, based in Santa Clara, Calif.

"The increased performance delivered by the new DD580 is impressive, and implementing it with our existing Data Domain systems was quite simple. During our test period, we added an additional disk shelf to build out our capacity and retention capabilities. We liked the fact that we could add on the shelf without even having to open up the device to add a card. This gives administrators a lot of flexibility to configure and easily scale the system as needed," Eckman said.

Data Domain has excelled at putting a strong emphasis on advanced optimization techniques for disk-based backup, Brad O'Neill, senior analyst at Taneja Group, told eWEEK.

"I think the reason they are going to be the first IPO in this space is precisely because they've had a very consistent voice on one topic for the past four years," O'Neill said. "When I talk with their customers, the positive feedback focuses a lot on ease and simplicity. Disk-based backup purchasing never seems to focus on just one or two attributes; it's an amalgam of scale, performance, data integrity, integration and management concerns."

What Data Domain brings to market, not unlike Network Appliance in the 1990s, is a simple appliance-based approach that wraps all those value propositions together, O'Neill said.

The challenge Data Domain faces today and in the future is on two fronts, O'Neill said. "They have software and systems vendors like EMC who are innovating capacity optimization at a different level in the infrastructure, but also players like Quantum, Sepaton, ExaGrid and Diligent who are also delivering appliance-based solutions with

competing value propositions," O'Neill told eWEEK.

"So, the product will have to continue to prove scalability and performance against all comers," O'Neill said. "It's a tall order, but based on what I've seen from the company's stated development priorities, I feel comfortable saying they're thinking deeply about the issues they'll need to overcome."

The DD580 will be generally available by August. The base appliance configuration with 15 drives starts at \$120,000, the spokesperson said.

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