



Dell Compellent Flash-optimized Solutions

Flash at the price of disk¹

Enhance performance in enterprise applications and VDI environments with improved I/O and low latency. Dell[™] Compellent[™] Flash-optimized solutions' unique way of tiering data allows you to deliver high-speed SSD performance to more applications in your environment while reducing your costs significantly compared to other flashoptimized solutions.²

Designed to drive down costs while boosting performance

Compellent Flash-optimized solutions offer flash performance at rotating disk capacities and prices. These solutions are the first in their class to automatically tier data from write-intensive SLC SSDs to lower-cost, read-intensive MLC SSDs and traditional rotating disks.³

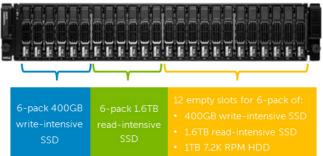
The innovative Flash-optimized solutions provide all-flash or hybrid-flash storage. These solutions offer up to an approximate 2x price advantage over competitive hybrid solutions, and up to an approximate 5x price advantage over competitive all-flash solutions.⁴

Compellent Flash-optimized solutions are designed to provide high performance with low latency for enterprise databases, OLTP and ERP systems, and other I/O intensive workloads. With these solutions, you can achieve greater than 300,000 IOPS with low latency.⁵

Flexible configurations to meet your requirements

Compellent Flash-optimized solutions provide all-flash or hybrid-flash storage with the energyefficient Dell Compellent SC220 flash enclosure that has twenty-four 2.5" drive bays or slots. In the all-flash solution, the twenty-four 2.5" drive bays are populated with SSDs; the hybrid-flash solution uses a mix of SSDs and rotating disks. Flash-optimized solutions use an SC220 flash enclosure that has six 400GB write-intensive SLC SSDs and six 1.6TB read-intensive MLC SSDs (one of the highest-capacity 2.5" enterprise-class MLC SSDs available). For an all-flash solution, you can fill the twelve remaining slots in the SC220 with six-packs of SLC and MLC SSDs. For a hybrid-flash solution, you can fill the twelve remaining slots with a combination of SSDs and 1TB 7.2K RPM HDDs.

SC220 2U 24-drive flash enclosure

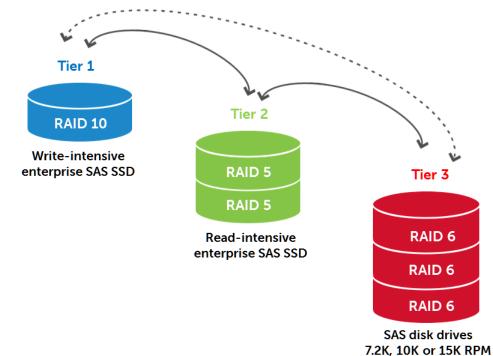


An all-flash solution consists of one or more of SC220 flash enclosures and provides two tiers of storage with both read- and write-intensive SSDs for applications that require high IOPs and low latency. A hybrid-flash solution provides three tiers of storage and can be configured using one or more SC220 flash enclosures with both write- and read-intensive SSDs and HDDs, plus the option to expand capacity using additional SC220 enclosures with 7.2K, 10K or 15K RPM drives, additional SC200 enclosures with large capacity drives, or additional SC280 enclosures with 4TB 7.2K RPM drives.

Advanced enterprise technology

New storage profiles help ensure consistent low latency in performance-sensitive data volumes, while over-provisioned enterprise-class SAS SSDs provide endurance and sustained performance. To avoid any downtime due to SSD failure, the Dell Compellent storage management interface has a "gas-gauge" feature that indicates SSD life expectancy and alerts you when a replacement becomes necessary. Enterprise-class SSDs in Compellent Flash-optimized solutions have an expected endurance of five years.

The Dell Compellent Data Progression feature offers intelligent auto-tiering that continually optimizes performance and data placement as your system grows, making Flash-optimized solutions ideal for multiple tiers of SSDs. Read-intensive data is automatically moved to read-optimized MLC SSDs, while write-intensive data stays on high-endurance SLC SSDs and cold data is ultimately moved to spinning disk drives. Use one or several Compellent enclosures to increase your data center's efficiency and performance by keeping highly active data on high-performance, flash-optimized storage and placing less active data on high-capacity HDD storage all within a single array.



With Compellent Data Progression, you can automatically tier data from write-intensive SLC SSDs to lower cost read-intensive MLC SSDs and traditional rotating disks

¹The Dell Compellent all-flash solution costs less than a comparable 15K disk drive solution based on internal Dell analysis in July 2013 using Dell Compellent flash-optimized and spinning disk US list pricing.

²Dell's innovative Compellent Flash-optimized solution is approximately 1/5 the price versus competitive solutions based on competitive US list pricing from Gartner Inc, CP Storage, as of June 2013. Market price calculated assuming a discounting of approximately 50% for all competitive systems and Dell Compellent.

³Based on internal Dell analysis performed in May 2013, comparing similar Dell Compellent offerings to EMC VNX Family, HP 3PAR StoreServ, HP EVA, IBM V7000, IBM XIV, Hitachi Data Systems HUS 100 Family, and Oracle Sun ZFS Storage Family.

⁴Competitive U.S. list pricing from Gartner Inc, CP Storage, as of June 2013. Market price calculated assuming a discounting of approximately 50% for all competitive systems and Dell Compellent.

⁵Internal test performed by Dell in March 2013 with Storage Center v6.3.10 on dual SC8000 controllers running workloads using IOmeter with a 100% read, 100% sequential load with 4K sector transfer size. Actual performance will vary based on configuration, usage and manufacturing variability.

Global services and support

Dell Services can help reduce IT complexity, lower costs, and eliminate inefficiencies by making IT and business solutions work harder for you. The Dell Services team delivers distinctive capabilities, including Copilot support and optimization as well as full data migration solutions to facilitate consolidation from multiple file systems. Dell takes a holistic view of your needs and designs solutions for your environment and business objectives while using established delivery methods, local talent and in-depth domain knowledge to help lower your total cost of ownership.

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