Dell Compellent Storage Center

Enterprise storage for virtualized data centers and the cloud

The Dell™ Compellent™ Storage Center™ SAN is an all-in-one storage array that allows organizations to actively manage data at a highly granular level using built-in intelligence and automation. This ultra-efficient, easy-to-manage storage solution optimizes drive utilization, dynamically moves data between storage tiers and RAID levels, continuously protects data against downtime and disaster, scales on demand, and quickly adapts to ever-changing business needs. Storage Center enables organizations to cut the time, cost and risk of managing enterprise storage—today and in the future.

Manage data differently

Part of the Dell Fluid Data™ architecture, Storage Center changes the way organizations manage data. Empowered by real-time system information about each block of data, Storage Center optimizes data placement, management and protection throughout its lifecycle. Storage is provisioned without wasting capacity. Data is moved where it's needed, when it's needed, based on actual use and performance needs. And data is continuously protected using pointer-based snapshots. This level of data awareness also enables Storage Center to virtualize the storage infrastructure, bringing new efficiency, agility and resiliency to enterprise storage by creating a pool of high-performance storage shared by all servers and applications

Scale on a persistent, open, agile platform

Storage Center is built on a flexible, persistent hardware platform that dynamically scales to meet business requirements. Unlike systems that require you to rip and replace technology as your business needs change, Storage Center supports the continual adoption of new technologies as you grow. You can easily mix and match drive technologies and build a unified storage solution without ever worrying about a forklift upgrade. This allows you to use any combination of industry-standard technology at any time, and you can add capacity or make configuration changes without downtime or disruption. Incorporating the latest data center technologies is as simple as plugging in new components on the fly. Storage Center adjusts automatically, restriping data across all drives and updating the in-flight use characteristics.

Increase storage efficiency with intelligent, automated software

Dell Compellent and Dell Fluid Data architecture empower organizations to move beyond simply storing data to actively managing data. Built-in intelligence and automation optimize the storage environment, and every enterprise feature is fully integrated for optimum efficiency, flexibility and performance.

Storage Center leverages a comprehensive software suite with advanced functionality. At the core of the solution is true storage virtualization, which pools all resources across the array for maximum efficiency and performance. Thin provisioning, automated tiered storage software, and space-efficient snapshot technology help you get more out of your storage investment. Thin replication and dynamic business continuity software provide a cost-effective recovery and allow for the movement of volumes between arrays without disruption.

Resilient, available data keeps the enterprise at work

Providing up to five nines of availability (99.999% availability), Storage Center keeps critical customer data at the ready1. With resilient hardware and software combined with world-class Copilot Support, enterprises realize the continuous data availability critical to customer success.

Dell Compellent SC8000 Tech Specs	
Product Operating System	Storage Center 6.1 or later
OS Support	Microsoft® Windows® Server, Solaris, HP-UX, Linux, IBM AIX, Novell NetWare, Apple, Tru64, VMware®
Processor	Two 2.5 GHz Six-Core (Sandy Bridge) Intel™ processors per controller
Storage Capacity	Each system supports up to 960 SAS drives. The maximum usable capacity supported by a system varies based on configuration. Each 3.5" SAS enclosure holds up to 12 SAS drives. Each 2.5" SAS enclosure holds up to 24 SAS drives.
Drive Interfaces	SAS and NL-SAS drives. Also backwards compatible with existing Compellent Fibre Channel and SATA drives. Different drive types, transfer rates and rotational speeds can be mixed in same system.
Disk Drives:	
SAS SSD (2.5-inch)	200GB SAS 400GB SAS (will be supported with SC200/SC220)
Fibre Channel HDD (3.5-inch)	300GB 15K RPM 450GB 15K RPM 600GB 15K RPM
SAS HDD (2.5-inch)	146GB 15K RPM 300GB 15K RPM 600GB 10K RPM 900GB 10K RPM 1TB 7.2K RPM
SAS HDD (3.5-inch)	450GB 15K RPM 600GB 15K RPM 1TB 7.2K RPM 2TB 7.2K RPM 3TB 7.2K RPM
RAID	Supports RAID 0, 5, 6 and 10. Any combination of RAID levels can exist on a single Storage Center. Multiple RAID levels can exist on the same storage tier within an array.
Connectivity	
Front-End Connectivity	Fibre Channel (4Gb, 8Gb), iSCSI (1Gb, 10Gb), FCoE (10Gb) Simultaneous interface support
Maximum Front-End Ports	16 (Fibre Channel), 10 (1Gb iSCSI), 10 (10Gb iSCSI), 10 (FCoE) per controller NOTE: SC8000 controller can support up to 16 FC front-end ports with 4-port low-profile SAS back-end IO option.
Back-end Connectivity	SAS (6Gb, 3Gb), Fibre Channel (2Gb, 4Gb, 8Gb)
Maximum Back-End Ports	16 (FC), 10 (SAS) per controller NOTE : No SATA ports, FC and SATA enclosures are connected to FC8 IO card.
Chassis	
Storage Controller	Rack size: 2U Height: 87.3 mm (3.44 inch) Width: 482.4 mm (18.98 inch) with rack latches 444 mm (17.08 inch) without rack latches Depth: 755.8 mm (29.75 inch) with bezel Weight: 19.73 kg (43.5 lbs)
Environmental Operating Conditions	
SC8000 Controller	Power: Dual, Redundant 750W power supplies with Platinum efficiency Heat Dissipation: 2891 BTU/hr rated Power Supply Operating Temperature: 50 - 95°F (10 - 35°C) Non-Operating Temperature: -40 - 149°F (-40 - 65°C) Operating Humidity Ranges (non-condensing): Operating, 20% to 80% Non-Operating Humidity (non-condensing): 5% to 95% Inlet Type: NEMA 5-15/CS22.2, n°42

[1] Results based on January 2012 internal Dell testing with actual MTBF calculated from a run time total of 26 million+hours. Run time and availability impacting failures for a 6-month period from 8/2011 thru 1/2012. Estimated weighted average MTTR of 7.2 hours for 12 hour part SLA, 4.5 hours for 4 hour part SLA. Based on high-level hardware platform comparisons, it is expected that the SC8000 will experience similar availability performance as Series 30/40. Actual SC8000 availability performance data will be available approximately 6 months post GA release.

[2] SATA drives and enclosures are supported on existing Storage Center SANs, but are not available for new customers.

Manage data differently at Dell.com/Compellent

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