



Dell Compellent Drives, Enclosures

Balance cost and performance with the right technologies

The Dell™ Compellent™ Storage Center™ SAN is an all-in-one storage array that always puts data in the right place at the right time for the right cost. With its open, agile hardware platform, Storage Center allows organizations to intermix the latest industry-standard technologies in the same array. You can also introduce new and emerging technologies over time on the fly, and scale up and out on demand, quickly adapting to ever-changing business needs without disruption or downtime. You don't need to upgrade to a new hardware platform just to take advantage of new technologies. Instead of undergoing a costly forklift upgrade, you can simply add or change out components.

Scale on a single, modular hardware platform

With Dell Compellent drives and enclosures, organizations can start with any amount of storage capacity and expand over time—from 2TB to nearly 2PB—only having to replace components if upgrading to new technologies. You can easily combine drive and enclosure technologies to build a storage solution that optimizes capacity for maximum efficiency with a minimal footprint. Incorporating new technologies is as simple as plugging in new components. And redundant, hot-swappable power supplies and drives, support for multiple RAID levels, and automatic drive failover and rebuild help to ensure data protection.

Store your data on 3.5" or 2.5" drives

Dell Compellent drives feature the latest industry-standard innovations. Organizations can intermix SSD, FC, SAS and SATA drives in the same array. Administrators simply choose the drive types, capacities, form factors, transfer rates and rotational speeds that make sense for their business and application needs.

Dell Compellent 3.5" drives support 4Gb FC or 6Gb SAS back-end connectivity. When utilizing 3.5" FC drives, you can select between 15K 300GB, 15K 450GB, 15K 600GB or 10K 450GB capacities. With 3.5" SAS drives, the options are 15K 450GB, 15K 600GB, 7.2K 1TB or 7.2K 2TB drives. Also available are 2.5" 6Gb SAS drives, which deliver improved performance yet consume about half the power of conventional 3Gb SAS drives. When utilizing 2.5" SAS drives, you can select between 15K 146GB, 10K 450GB or 10K 600GB.

No matter the combination of drives, your storage environment remains optimized with true storage virtualization. All drives are abstracted and aggregated across the array, creating a high-

performance pool of shared storage. With multiple I/O requests processed in parallel, I/O bottlenecks are minimized. Adding automated tiered storage software, called Data Progression™, further increases efficiency and performance by dynamically moving inactive data to lower-cost, high-capacity drives.

You can always add more capacity on the fly to accommodate changing business needs. The system adjusts automatically, restriping data across all drives in the array. Also, migrating data to new drives can be performed without disruption using Dell Compellent Live Volume™ software.

Select the right enclosures for your environment

With Dell Compellent enclosures, administrators always know their systems can benefit from the latest industry-standard innovations, such as 6Gb SAS interconnects. You have the flexibility to mix and match a variety of enclosures—FC, SAS or SATA—in the same Dell Compellent Storage Center system. In fact, you can combine SAS drives with the same form factor and transfer rate but different capacities and rotational speeds in the same enclosure. The result is an optimum balance of performance and cost.

Feature	Dell Compellent Drives and Enclosures
Storage Capacity	739TB of raw storage capacity with FC drives or 1,920TB with SAS drives per system.
Hard Drives	Each 3.5" FC enclosure holds up to 16 FC or 14 SSD drives (with a FC drive in bays 1 and 16). Each 3.5" SAS enclosure holds up to 12 SAS drives. Each 2.5" SAS enclosure holds up to 24 SAS drives.
Drive Enclosure Interfaces	4Gb FC, 6Gb SAS
3.5" Drive Performance and Capacities*	15,000 RPM SAS drives available in 450GB and 600GB 15,000 RPM FC drives available in 300GB, 450GB and 600GB 10,000 RPM FC drives available in 450GB 7,200 RPM SAS drives available in 1TB and 2TB FC Solid State Drive (SSD) available in 146GB
2.5" Drive Performance and Capacities	15,000 RPM SAS drives available in 146GB 10,000 RPM SAS drives available in 450GB and 600GB
Enclosure Back-End	Max number of ports: 22 (FC), 20 (SAS) Max number of loops/chains: 11 (FC), 10 (SAS) Enclosures per loop/chain: 7 (FC), 8 (SAS)
Expansion Capabilities	Each system supports up to 1,232 FC drives or 960 SAS drives
RAID Levels	Support for RAID levels 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 Storage is virtualized and pooled across array without RAID group limitations
Power Supplies	
Wattage	FC Enclosure (3.5" Drives): 450 W peak output SAS Enclosure (3.5" Drives): 410 W peak output SAS Enclosure (2.5" Drives): 425 W peak output
Heat Dissipation	FC Enclosure (3.5" Drives): 1,540 BTU/hour SAS Enclosure (3.5" Drives): 1,725 BTU/hour SAS Enclosure (2.5" Drives): 1,785 BTU/hour
Physical	
Height x Width x Depth	FC Enclosure (3.5" Drives): 5.12" (13.0 cm) x 19.0" (48.2 cm) x 19.7" (50.0 cm) SAS Enclosure (3.5" Drives): 3.46" (8.79 cm) x 19" (48.2 cm) x 24.8" (63.0 cm) SAS Enclosure (2.5" Drives): 3.46" (8.79 cm) x 19" (48.2 cm) x 24.8" (63.0 cm)
Weight	FC Enclosure (3.5" Drives): 78 lb (35 kg) SAS Enclosure (3.5" Drives): 57 lb (25.8 kg) SAS Enclosure (2.5" Drives): 53 lb (24 kg)
Environmental	
Temperature	Operating: 41-104° F (5-40° C)
Relative Humidity	Operating: 8% to 90% (non-condensing)

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

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