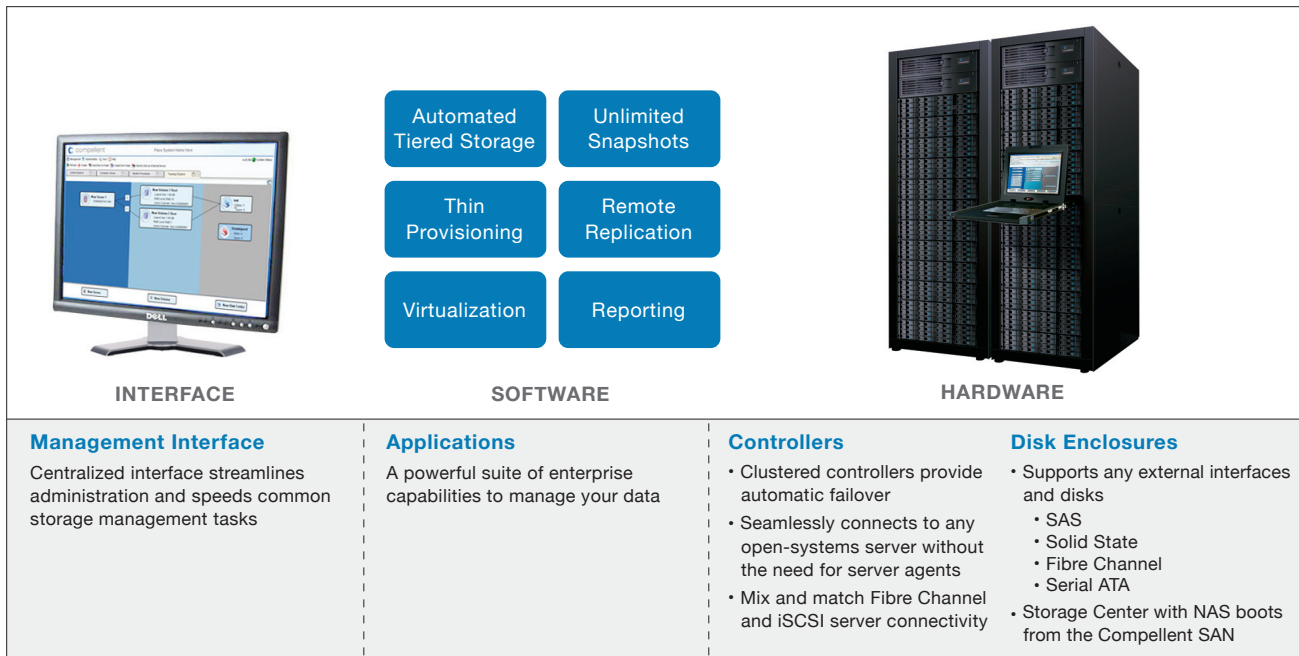


STORAGE CENTER TECHNICAL SPECIFICATIONS

Storage Center goes beyond the boundaries of traditional storage systems by combining modular standards-based hardware and intelligent, innovative software to manage your data intelligently. Storage Center's scalable hardware platform features unprecedented flexibility and unlimited growth. The powerful software applications optimize utilization, automate tiered storage, simplify replication and speed data recovery. The entire solution is managed with a single interface, streamlining administration.



Modular Hardware Architecture

- » Standards-based
- » Modular, highly available hardware architecture
- » Add capacity, connectivity and performance incrementally to match demand
- » Mix and match any number of drives, and enclosures (including multiple-speed SAS drives in the same enclosure)

Powerful Software Applications

- » Suite of powerful, innovative software applications
- » Provision unlimited volumes from a single, shared pool
- » Optimize utilization, speed local and remote replication
- » Automate tiered storage

Intuitive, Unified Interface

- » Centralized, point-and-click wizard-based setup and management
- » Comprehensive Phonehome capabilities
- » Automatic notification when user-defined capacity thresholds are reached
- » Advanced storage consumption and chargeback reporting

STORAGE CENTER HARDWARE

Storage Center's hardware architecture employs a modular build-as-you-grow approach that provides a low cost of entry with unlimited growth. The flexible hardware platform enables simultaneous mixing and matching of any server interface or drive technology. Add capacity, connectivity and performance incrementally to match demand.

CONTROLLER	SERIES 20	SERIES 30
Number of Controllers	1 or 2	1 or 2
PCI Expansion Slots	PCI - X = 4 PCI - E = 1	PCI - X = 1 PCI - E = 4
Expansion Slot Adapters	Fibre Channel and/or iSCSI	Fibre Channel, iSCSI, SAS
Maximum Number of Ports	18	18
Modular Architecture	Yes	Yes
Processor Speed	3.2 GHz	3.0 GHz Dual-core
Active/Active Cluster	Yes	Yes
Power Supplies Redundant and Hot-swappable	Yes	Yes
Cooling Fans Redundant and Hot-swappable	Yes	Yes
Controller(s) Redundant and Hot-swappable	Yes, with Clustered Controllers	Yes, with Clustered Controllers
Controller Cluster Distance	300 meters	300 meters
CACHE	SERIES 20	SERIES 30
Maximum Cache Size per System	2.25 GB	3.50 GB
Multi-threaded Read Ahead, Mirrored Write Cache	Yes	Yes
Cache Back-up Battery	72 hours	72 hours

FRONT END (HOST) INTERFACE	SERIES 20 & SERIES 30
Host Interface Support	Fibre Channel (4 Gb) iSCSI
Simultaneous Host Interface Support	Yes, Fibre Channel and/or iSCSI
Maximum Host Ports	16
Fabric Switch Support	Yes
Host Operating System Support	Microsoft Windows, Sun Solaris, HP-UX, Linux, IBM, AIX, Novell Netware, Apple, Tru64, VMware
Server Agent Required	No
Microsoft Cluster Server Support	Yes
Microsoft Multipath Input/Output (MPIO) Support	Yes
File-Level Support	Yes, Storage Center with NAS Boots from Compellent SAN Cluster up to 8 NAS servers for high availability

DISK ENCLOSURES	FC	SATA	SAS
Disk Enclosure Interface Speed	4 Gb	2 Gb	3 Gb
Max Number of Backend Ports	16	16	16
Max Number of Backend Loops/Chains	8	8	8
Enclosures per Loop/Chain	7	5	4
Disk Drive Support	FC	SATA	SAS
Intermixed Disk Drive Capacities	Yes	Yes	Yes
Max Number of Disk Drives per Enclosure	16	16	12
Maximum Number of Disk Drives	896	640	384
Maximum Raw Capacity	403 TB	640 TB	384 TB
Disk Drive Capacities	SSD: 146 GB 15,000 RPM: 300 GB, 450 GB 10,000 RPM: 300 GB, 400 GB	7,200 RPM: 500 GB, 1 TB	15,000 RPM: 450 GB 7,200 RPM: 1 TB

DISK DRIVE ENCLOSURES (Continue)	FC	SATA	SAS
RAID Level Support	RAID 0, 5 and 10	RAID 0, 5 and 10	RAID 0, 5 and 10
Power Supplies Redundant and Hot-swappable	Yes	Yes	Yes
Disk Drives Redundant and Hot-swappable	Yes	Yes	Yes
Automatic Drive Failover	Yes	Yes	Yes
Automatic Drive Rebuild	Yes	Yes	Yes
Maximum Number of Hot Spares	Configurable	Configurable	Configurable

PORTABLE VOLUME

Number of Disk Drives (per kit)*	2 enterprise-class external hard drives
Disk Drive Capacity	2 TB each
Connectivity	USB 2.0
Encryption**	128-bit AES
SAN Auto-detect	Yes
Travel Case	Ruggedized w/TSA-approved lock

*Available as complete kit only. Multiple kits can be used concurrently.

**User selectable.

Operating Environment

	SERIES 30 CONTROLLER	SERIES 20 CONTROLLER	SBOD FIBRE CHANNEL ENCLOSURE	JBOD SATA ENCLOSURE	EBOD SAS ENCLOSURE
Physical Configuration	Rack	Rack	Rack	Rack	Rack
Height	5.2" (132 mm), 3 EIA Units	5.1" (132 mm), 3 EIA Units	5.12" (130 mm), 3 EIA Units	5.12" (130 mm), 3 EIA Units	3.46" (87.9 mm), 2 EIA Units
Width	17.2", (437 mm)	17.1", (434 mm)	19.0" (482.6 mm)	17.6" (447 mm)	19.01" (483 mm)
Depth	25.5" (648 mm)	25.5" (648 mm)	19.7" (500 mm)	21.7" (551 mm)	24.8" (630 mm)
Weight	75 lbs. (34.1 kg)	75 lbs. (34.1 kg)	77.6 lbs. (35 kg)	81lbs. (30.5 kg)	57.2 lbs (26 kg)
Power Consumption	360 watts	375 watts	450 watts	450 watts	580 watts
Power Supplies	Dual (redundant)	Triple (redundant)	Dual (redundant)	Dual (redundant)	Dual (redundant)

Operating Environment (Continue)

	SERIES 30 CONTROLLER	SERIES 20 CONTROLLER	SBOD FIBRE CHANNEL ENCLOSURE	JBOD SATA ENCLOSURE	EBOD SAS ENCLOSURE
Heat Dissipation (BTU/hr)	1,229	1,280	1,540	1,540	1,540
Temperature	50°F - 95°F (10°C - 35°C)	50°F - 95°F (10°C - 35°C)	41°F - 104°F (5°C - 40°C)	41°F - 104°F (5°C - 40°C)	41°F - 104°F (5°C - 40°C)
Humidity (non-condensing)	8% - 90%	8% - 90%	20% - 80%	20% - 80%	8% - 80%
Inlet Type	NEMA 5-15/CS22.2, n°42	NEMA 5-15/CS22.2, n°42	NEMA 5-15/CS22.2, n°42	NEMA 5-15/CS22.2, n°42	NEMA 5-15/CS22.2, n°42

EMISSIONS/SAFETY

Controller Series 20 & 30
 FCC Class B; EN55022 Class B; EN 61000-3-2/-3-3; CISPR 22 Class B; EN55024/CISPR 24; (EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8, EN 61000-4-11); EN60950/IEC 60950 Compliant
 UL Listed (USA), CUL Listed (Canada), TUV Certified (Germany), CE Marking (Europe)

Enclosure

SBOD Fibre Channel
 UL and cUL listed. Tested to UL/IO/EN 60950. Certified Body Certificate and Report to IEC60950. CE marked to the requirements of the Low Voltage Directive 73/23/EEC and the Electromagnetic Compatibility Directive 89/336/EEC. FCC Class A.
 EMC: EN55022/EN61000-3-2, EN61000-3-3

JBOD SATA
 UL and cUL listed. Tested to UL/IO/EN 60950. Certified Body Certificate and Report to IEC60950.
 CE marked to the requirements of the Low Voltage Directive 73/23/EEC and the Electromagnetic Compatibility Directive 89/336/EEC. FCC Class A.
 EMC: EN55022/EN61000-3-2, EN61000-3-3

EBOD SAS
 EMC FCC pt15B Class A, EN55022 Class A, CISPR 22 Class A, EN 55024, CISPR24, aEN61000-3-2/3, CNS13438
 Safety EN/IEC/UL 60950-1, CNS14336
 CB report: CE, UL, cUL, FCC, BSMI

STORAGE CENTER SOFTWARE

Storage Center Software places enterprise storage capabilities at your fingertips through a powerful suite of applications that optimize utilization, automate replication, simplify replication and speed data recovery.

HARDWARE AND SOFTWARE WARRANTY

- » 5 Year Hardware Warranty
 - » 90 Day Software Warranty
 - » 24x7 Call Center Support
 - » Advance Hardware Parts Exchange
-

COMPELLENT

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ABOUT COMPELLENT

Compellent delivers affordable, modular storage solutions exclusively through business partners that provide companies of all sizes enterprise storage capabilities without big system costs or complexities. Designed by network storage and virtualization pioneers, Compellent enables any business to cut storage expenditures in half, recover from data hazards within minutes, scale to any capacity across any technology and easily manage its storage without adding staff.

Storage Center Core

Disk Virtualization	Manage disks as a single pool and present disk resources to any server.
Port Virtualization	Increase port capacity, disk bandwidth and I/O connectivity while enhancing failover.
Server Mapping	Rapidly map hundreds of virtual servers simultaneously.
Disk Optimizer	Intelligently restripes data as disks are added to optimize performance.
Thin Import	Convert data from legacy systems into thin provisioned volumes on a Compellent SAN.
Application Optimizer	Set the size of data transfers within the SAN to match I/O performance for different applications.
Copy-Mirror-Migrate	Make copies or mirrors and migrate volumes without impacting users.
Boot from SAN	Allow diskless servers to share storage resources and boot from the SAN.
Heterogeneous OS	Support any number of simultaneous operating systems.
LUN Masking	Hide unassigned LUN/ID numbers for secure storage domains.
Performance Monitoring	Real-time reports to identify and optimize performance and utilization.
Unified User Interface	Enterprise-level functionality through a common intuitive user interface.
System Administration	Operate from any standard browser. Create unique user profiles with administrator configured privileges.
Remote Monitoring/Phonehome	Remotely report status and automatically trigger service responses.

Storage Center Applications

Data Instant Replay	Create space-efficient Replays (snapshots) that restore data instantaneously while ensuring the integrity of enterprise application data spanning multiple volumes (Consistency Groups).
Remote Instant Replay	Create space-efficient Replays (snapshots) of data at multiple locations and expedite initial synchronization (Portable Volume).
Dynamic Capacity	Allocate space based on actual data written (Thin Provisioning).
Data Progression	Automate tiered storage between storage classes based on user-defined rules.
Fast Track	Place active data on the outer tracks of a disk.
Dynamic Controllers	Cluster storage controllers to increase system availability and performance.
Enterprise Manager	Comprehensive monitoring, reporting and remote replication management.
Multipath Manager for Microsoft Servers	Failover and load balancing for Microsoft Servers (MPIO).
Replay Manager for Microsoft Servers	Non-disruptive Replays for Microsoft Servers (VSS).

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