

The Nimble Storage CS-Series

CONVERGED iSCSI STORAGE, BACKUP, AND DISASTER RECOVERY



The Challenge: Storage Cost and Complexity Hinder the Midsize Enterprise

Today's businesses face a growing list of IT challenges:

- **Storage is too expensive.** New business and productivity applications require large amounts of costly primary storage with high-RPM drives, plus secondary storage for backup.
- **Backups and restores take too long.** For most organizations, there is too much data to back up during allotted maintenance windows. Traditional backup solutions require too much time and bandwidth.
- **Storage management is becoming more complex.** Existing storage, backup, and DR systems are difficult to administer, requiring time and manpower that most midsize enterprises don't have.
- **Disaster recovery solutions are inadequate or too expensive.** There are no practical DR solutions that fit midsize enterprise budgets. Inadequate DR puts businesses at risk for downtime and data loss in a disaster.

With limited budgets and manpower for IT initiatives, most organizations have run out of options to keep up with the growth, cost, and complexity of storage.

The Solution: The Nimble Storage CS-Series

Nimble Storage has developed the industry's first converged iSCSI storage, backup, and disaster recovery solution. Nimble combines flash memory with high-capacity drives, eliminating the need for expensive, high-RPM drives and separate disk-based backup solutions. Disaster recovery is as easy as deploying a second Nimble array at an offsite location.

Founded by a team of IT veterans who developed some of the industry's leading storage and deduplication technologies, Nimble solves the midsize enterprise's most pressing IT problems: reining in storage complexity, reducing costs, and implementing affordable backup and recovery.

THE CONVERGED STORAGE ADVANTAGE



Existing Technologies

60%+ Lower Capex

Nimble slashes IT costs by converging compressed primary storage, optimized backup storage, and disaster recovery into one solution.

Instant Backups and Restores

Breakthrough storage architecture enables backups and restores in seconds, not hours.

Fast Offsite Disaster Recovery

WAN-efficient replication and rapid offsite failover ensure business continuity.

Flash-Accelerated Performance

High-performance SSDs and application-optimized storage profiles accelerate I/O and reduce latency.

Dramatically Simplified Management

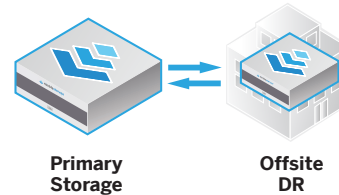
Intuitive user interface enables configuration of storage, backup, and disaster recovery in just three simple steps.

Instant Backups and Restores

High-density drives and 20x capacity optimization enable cost-effective retention of up to 90 days of backups on a single array. There's no need to move data from tape or other backup media, so backups and restores can be performed in seconds. Built-in application integration through Nimble Protection Manager enables simplified application management and VM-consistent backups for Microsoft and VMware environments.

Fast Offsite Disaster Recovery

Nimble makes disaster recovery fast and cost-effective for the mid-sized enterprise. Nimble's DR solution is enabled by highly WAN-efficient replication to an offsite Nimble array, making it up to 20x faster than typical SAN replication.



Flash-Accelerated Performance

Intelligent flash memory management and application-optimized storage profiles significantly accelerate I/O and reduce latency, making Nimble CS-series arrays ideal for demanding primary storage applications such as Microsoft Exchange, business-critical databases, and Microsoft SharePoint.

Dramatically Simplified Management

Designed for the IT generalist, Nimble's intuitive UI eliminates the complexity of managing separate storage, backup, and disaster recovery devices. Using predefined application and data protection policies, new volumes can be created in just three steps. Nimble Protection Manager also simplifies management of application-consistent backups and replicas for Microsoft apps and VMware.

60%+ Lower Capex

By eliminating high-RPM drives and separate disk-based backup devices, Nimble slashes infrastructure costs, energy consumption, and rackspace requirements. Enterprises can save more than 60% off the cost of multiple-component solutions from existing storage vendors.

The Bottom Line:

Converged Storage, Backup, and DR Slash Cost and Complexity

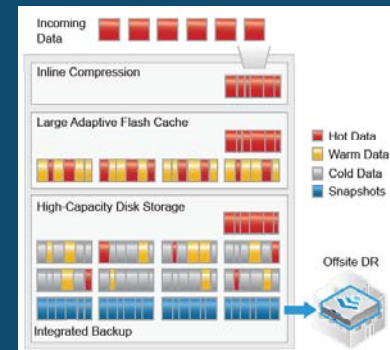
Enterprises can now replace traditional storage devices with Nimble's breakthrough architecture that combines low-cost, high-density drives with flash memory. By converging storage, backup, and disaster recovery into one solution, enterprises can significantly cut costs, reduce complexity, and get complete, cost-effective disaster recovery.

Nimble CS-Series Converged Storage Array Specifications

	CS210	CS220 / CS220G	CS240 / CS240G
Raw Disk Capacity	8TB	12TB	24TB
Usable Disk Capacity (assuming 50% compression)	8TiB	16TiB	32TiB
Raw Flash Cache	160 GB	320 GB	640 GB
Usable Flash Cache (assuming 50% compression)	320GB	640GB	1.3 TB
Memory	24GB	24GB	24GB
Dimensions	3U (5.2"H x 17.2"W x 25.5"D) 76 lbs.	3U (5.2"H x 17.2"W x 25.5"D) 76 lbs.	3U (5.2"H x 17.2"W x 25.5"D) 76 lbs.
Power Requirement	500W	500W	500W
High Availability	Dual, hot-swappable controllers and power supplies with mirrored NVRAM.		
Network Connections	4x 1GbE (CS210); 6x 1GbE (CS220 & CS240); or 2x 10-GbE + 2x 1GbE (CS220G & CS240G); all per controller		
Application Integration	Nimble Protection Manager (VSS and VMware integrated snapshots and replication), VSS hardware provider, vCenter plug-in, application performance profiles.		
Included Capabilities	iSCSI, inline compression, thin provisioning, efficient snapshots and replication, instant restore, cloning, data protection policies, comprehensive checksums, proactive data scrubbing, auto-support (email home), hardware monitoring, high-performance dual-parity RAID, scale-out ready.		

How Nimble Is Different

CS-Series iSCSI arrays are based on Nimble's patented Cache Accelerated Sequential Layout (CASL™) architecture. Here's how it works:



Inline Compression:

Unlike existing architectures that store data as fixed-size blocks, CASL stores variable-size blocks. The result: real-time 50-75% compression with no added latency.

Intelligent Data Optimization:

A copy of active "hot" data is held in flash, enabling fast reads, while all data is stored in cost-effective, high-capacity disk. Data is laid out sequentially, enabling fast writes to flash and disk.

Instant, Integrated Backups:

60-90 days of compressed, incremental, primary data snapshots are captured on high-capacity disk at preconfigured intervals, improving RPOs.

Intelligent Index: Nimble's CASL index automatically tracks "hot" data blocks and instantly responds to workload changes.

Efficient Offsite Replication:

Compressed block-level changes are copied to a remote Nimble array for cost-effective disaster recovery.

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