Isilon S200

Accelerate performance for highly-transactional, IOPS-intensive applications

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Key Features

- Over 1.4 million NFS ops with aggregate throughput of 85 GBps

- Up to 13.8 TB of globally coherent cache

- Single file system and global namespace

- Namespace Operation Acceleration via SSD

- 60-second on-the-fly scaling of capacity and performance

- Up to N+4 data protection, set at cluster, directory, or file level

- Intelligent use of SSDs for metadata and file-based storage workflows

Use Cases

The Isilon S200 is a high-performance enterprise solution, fit for a variety of applications and workflows, including:

- **Digital Media:** broadcast, real-time streaming, rendering, and post production

- **Design & Simulation:** simulation, verification, and analysis of electronic and mechanical systems, design for manufacturability, and analysis requiring fast scratch storage

When ultimate IOPS performance is mission-critical, the Isilon S200 delivers. The Isilon S200 product line — next-generation high performance 2U platform built on Isilon's proven unified scale-out storage technology — accelerates business and increases speed-to-market by providing ultra-fast primary storage for your mission-critical, highly transactional, and random access file-based applications.
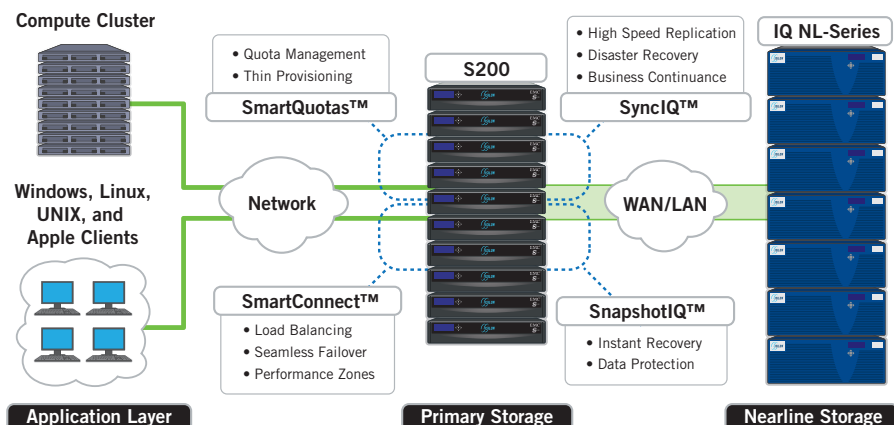
Performance: The Isilon S200 surpasses the limits of traditional primary file storage, providing over 1.4 million NFS ops and 85 gigabytes per second (GBps) of aggregate throughput, all from a single file system. To accomplish these extraordinary speeds, the S200 combines the power of ultra-high performance solid state drive (SSD) and 10,000 RPM 2.5-inch Serial Attached SCSI (SAS) drive technology, Quad 1GbE or dual 1GbE and dual 10GbE front-end networking, dual quad core Intel CPUs, a high-performance InfiniBand back-end, and up to 13.8 TB of globally coherent cache. In addition, the Isilon S200 leverages enterprise SSD technology to accelerate namespace-intensive metadata operations, and, also, provides an ability to place the mission critical, latency-sensitive data on SSDs in a SmartPools™ environment.

Simplicity: The S200, built on the same principles of simplicity as all Isilon products, provides ultimate ease of use. You can install, configure and have an Isilon S200 cluster online in under 10 minutes, without the need for expensive, specialized integration and configuration services.

Economics: With its impressive performance benchmarks, the Isilon S200 affords the best dollar per I/O solution available. And, with the proven high-utilization factor of Isilon scale-out storage — over 80 percent versus 50 percent for traditional NAS and SAN — overall storage efficiency is significantly improved while initial acquisition costs are greatly reduced.

Isilon S-Series Scale-out Storage Architecture:
Exceptional performance for highly transactional and random access file-based applications

Isilon S200 Product Specifications

Product Attributes

Scale-out Architecture	Truly distributed, fully symmetric clustered architecture that combines modular storage nodes with Isilon's intelligent software.
Modular Design	Self-contained nodes include server, software, and disks in a 2U rack-mountable node.
Operating System	Sixth generation of Isilon® OneFS® distributed file system. Creates a cluster with a single file system and single global namespace. Fully journaled, fully distributed, globally coherent write/read cache.
High Availability	No single point of failure. Self-healing design protects against disk or node failure. Includes backend intra-cluster failover.
Scalability	Initial cluster setup in under 10 minutes. Add performance and capacity in 60 seconds. Up to 2.1 PB and 85 GBps throughput.
Data Protection	FlexProtect file-level striping with support for N+1 through N+4 and mirroring data protection schemes.
Data Replication	SyncIQ™ fast and flexible file-based asynchronous replication.
Data Retention	SmartLock™ policy-based retention and protection against accidental deletion.
Network Protocol Support	NFSv3, NFSv4, NFS Kerberized Sessions (UDP or TCP), iSCSI, SMB1 (CIFS), SMB2, HTTP, FTP, NDMP, SNMP, LDAP, ADS, NIS reads/writes.
Client Support	Microsoft® Windows®, Linux, UNIX, Apple® Macintosh.
Isilon Software Compatibility	Compatible with all Isilon licensable software: SmartLock™, Isilon for vCenter™, SyncIQ™, SnapshotIQ™, SmartConnect™, SmartQuotas™, SmartPools™, InsightIQ™ and Aspera for Isilon IQ.

Environmental Specifications

Power Supply	Dual redundant, hot-swappable 760W power supplies with Power Factor Correction (PFC)
Operating Environment	50° F to 95° F (10° C to 35° C), 5% to 95% relative humidity, non-condensing
Dimension/Weight	Height: 3.48" (8.8 cm), Width: 18.87" (47.9 cm), Depth: 28.5" (72.4 cm), Weight: 48.8 lbs / 22.1 kg
Minimum Service Clearances	Front: 35" (89.0 cm), Rear: 14" (35.6 cm)

Isilon S200 Node Attributes & Options	300GB			600GB		
	Base	*Option 1*	*Option 2*	*Base*	*Option 1*	*Option 2*
Capacity (HDD/SSD)	7.2TB	6.9TB/200GB	5.4TB/1.2TB	14.4TB	13.2TB/400GB	10.8TB/1.2TB
Hard Drives (2.5" SAS)	24	23	18	24	22	18
Solid State Drives (SLC) 200GB	0	1	6	0	2	6
ECC Memory (FBDiMM cache)	24GB	24GB, 48GB or 96GB		24GB	24GB, 48GB or 96GB	
Front-end Networking	4 copper 1000 Base-T (GigE)	4 x GigE (Copper) **OR** 2 x GigE and 2 x 10GigE (SFP+ or Twin-ax Copper)		4 copper 1000 Base-T (GigE)	4 x GigE (Copper) **OR** 2 x GigE and 2 x 10GigE (SFP+ or Twin-ax Copper)	
CPU Type	Dual Intel Westmere (quad core) processors per node					
Infrastructure Networking	2 InfiniBand connections					
Non-volatile RAM (NVRAM)	512 MB					
Typical Power Consumption @ 100v	450W					
Typical Power Consumption @ 240v	456W					
Typical Thermal Rating	1,550 BTU/hr					

Isilon's Comprehensive Storage Solutions… Powerful, Yet Simple

The Isilon S-Series product line, along with the Isilon X-Series and NL-Series product lines, provide a complete portfolio of innovative solutions that drive business value for customers by optimizing their mission-critical applications, workflows, and processes. Isilon enables enterprises and research organizations worldwide to manage large and rapidly growing amounts of data in a highly scalable, easy-to-manage, and cost-effective way.

ISILON® SYSTEMS
Simple is Smart