EMC ISILON S-SERIES

EMC Isilon S200

The EMC® Isilon® S-Series, powered by the OneFS® operating system, uses a highly versatile yet simple scale-out storage architecture to speed access to massive amounts of critical data, while dramatically reducing cost and complexity. The EMC Isilon S200 product line, a high-performance 2U platform built on proven Isilon scale-out storage technology, provides ultrafast primary storage for your mission-critical, random-access file-based applications.

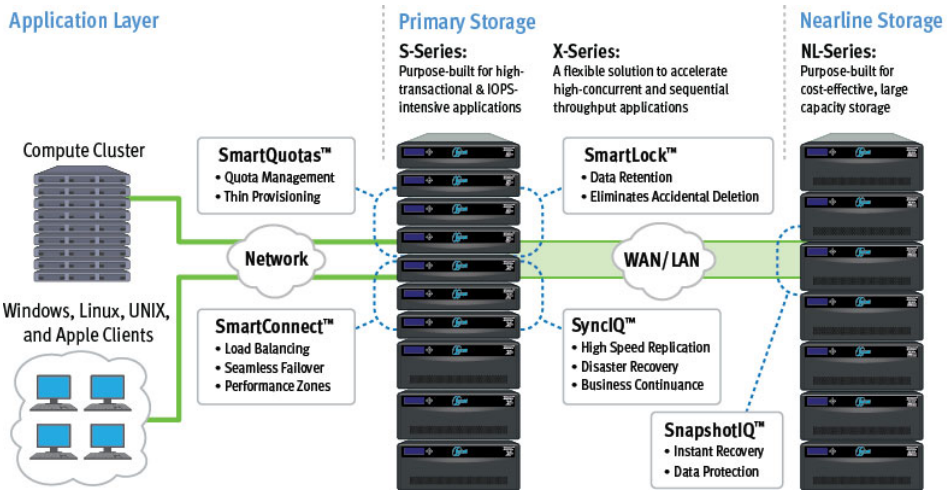
Performance: The Isilon S200 surpasses the limits of traditional primary file storage, providing over 1.6 million CIFS SPECsfs file operations per second and 1.1 million NFS SPECsfs file operations per second, with over 100 gigabytes per second (GB/s) of aggregate throughput, all from a single file system. 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 provides an ability to place 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 less than 10 minutes.

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

Specifications

ARCHITECTURE



EMC ISILON S-SERIES NODE SPECIFICATIONS

ISILON S200 NODE ATTRIBUTES & OPTIONS	300 GB HDD	600 GB HDD	900 GB HDD (Requires Isilon OneFS 6.5.5 or later)	1.2 TB HDD
Capacity (HDD/SSD)	5.4 to 7.2 TB / 0 to 4.8 TB	10.8 to 14.4 TB / 0 to 4.8 TB	18.9 to 21.6 TB / 0 to 2.4 TB	21.6 to 28.8 TB / 0 to 1.6TB
Hard drives (2.5" 10k RPM)	18 to 24	18 to 24	21 to 24	20 to 24
Solid-state drives (200 GB, 400 GB or 800 GB)	0 to 6	0 to 6	0 to 3	0 to 2
System ECC memory	24 GB, 48 GB, or 96 GB			
Front-end networking	4 copper 1000 Base-T (GE) or 4 x GE (copper) or 2 x GE and 2 x 10GE (SFP+ or twin-ax copper)	4 copper 1000 Base-T (GE) 4 x GE (copper) or 2 x GE and 2 x 10GE (SFP+ or twin-ax copper)	2 x GE and 2 x 10GE (SFP+)	2 x GE and 2 x 10GE (SFP+)
Drive controller	SAS-2, 6 Gb/s			
CPU type	Intel Xeon® processor			
Infrastructure networking	2 InfiniBand connections			
Non-volatile RAM (NVRAM)	512 MB			
Typical power consumption @ 100v	450 Watts			
Typical power consumption @ 240v	456 Watts			
Typical thermal rating	1,550 BTU/hr			

EMC Isilon S200 cluster attributes

Number of nodes:	3 to 144	Capacity:	19.8 TB to 4.15 PB	Memory:	72 GB to 13.8 TB	Rack units:	6 to 288

PRODUCT ATTRIBUTES

Scale-out architecture	Truly distributed, fully symmetric clustered architecture that combines modular storage nodes with Isilon intelligent software
Modular design	Self-contained nodes include server, software, and disks in a 2U rack-mountable node
Operating system	Seventh 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 back-end intra-cluster failover
Scalability	Initial cluster setup in under 10 minutes; add performance and capacity in 60 seconds; up to 3.11 PB and over 100 GB/s 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
Security	File System Audit capability to improve security and control of your storage infrastructure and address regulatory compliance requirements
Efficiency	SmartDedupe™ date deduplication option for up 35% reduction in storage capacity savings
Network protocol support	NFSv3, NFSv4, NFS Kerberized sessions (UDP or TCP), SMB1 (CIFS), SMB2, HTTP, FTP, NDMP, SNMP, LDAP, HDFS, ADS, NIS reads/writes

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
Dimensions/ Weight	Height: 3.48" (8.8 cm), width: 18.87" (47.9 cm), depth: 28.5" (72.4 cm), weight: 55 lbs (25.0 kg)
Minimum service clearances	Front: 35" (89.0 cm), rear: 14" (35.6 cm)

INDUSTRY CERTIFICATIONS

NORTH AMERICAN (NA) SAFETY	UL/cUL Listing (UL 60950-1:2003, First Edition) CSA C22.2 No.60950-1-03
INTERNATIONAL SAFETY CD SCHEME	IEC 60950-1 (2001) First Edition with all national deviations
EUROPEAN UNION (EU) SAFETY CE	Low Voltage Directive
NA EMC US FCC PART 15	Canada IC ICES-03
INTERNATIONAL EMC EU EMC DIRECTIVE (EN 55022 AND EN 55024)	Japan (VCCI) South Korea (MIC)

CONTACT US

To learn more about how EMC Isilon products, services, and solutions can help solve your business and IT challenges, contact your local representative or authorized reseller—or visit us at www.EMC.com/Isilon.