EMC ISILON X-SERIES

EMC Isilon X200

EMC Isilon X400

The EMC® Isilon® X-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 Isilon X-Series provides a flexible solution to accelerate your high-concurrent and sequential-throughput applications. In addition, with SSD technology for file-system metadata, the Isilon X-Series significantly accelerates namespace intensive operations.

Agility and Flexibility: The EMC Isilon X-Series is the first scale-out storage solution capable of scaling from a few terabytes to over 20 petabytes and over 100 gigabytes per second (GBps) of throughput, all within a single file system. On-the-fly scaling enables your organization to quickly grow capacity and performance linearly or independently, for ultimate agility.
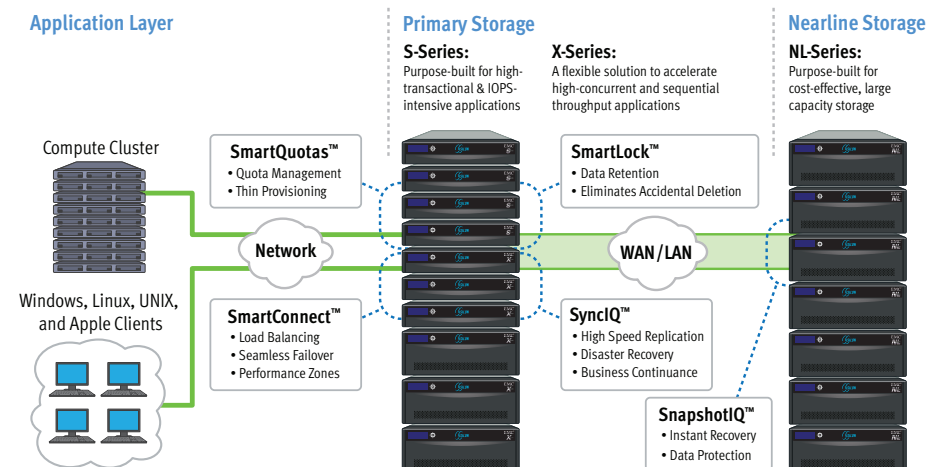
Simplicity: With its modular architecture and intelligent software, the Isilon X-Series makes deployment and management simple. Once racked, an X-Series cluster can be brought online in less than 10 minutes. With a single pool of storage with a global namespace, an X-Series cluster eliminates the need to support multiple volumes and file systems.

Unmatched Efficiency: With EMC Isilon, you can achieve highly efficient utilization rates—over 80 percent versus 50 percent for traditional NAS or SAN storage. This translates into greater overall efficiency, resulting in lower acquisition, operating, and maintenance costs. Low power consumption and maximum density further enhance the ultra-low overhead of Isilon storage.

SPECIFICATIONS

ARCHITECTURE

EMC Isilon X-Series Scale-out Storage Architecture:

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Node Attributes & Options	X200				X400			
	500 GB HDD	**1 TB HDD**	**2 TB HDD**	**3 TB HDD**	**1 TB HDD**	**2 TB HDD**	**3 TB HDD**	**4 TB HDD**
Capacity	4.2 – 6 TB	7.2 – 12 TB	13.2 – 24 TB	19.2 – 36 TB	32.4 – 36 TB	67.2 – 72 TB	97.6 – 108 TB	122.4 – 144 TB
Hard Drives (3.5" SATA)	6, 11 or 12	6, 11 or 12	6, 10 or 12	6, 9 or 12	32 – 36	33 – 36	32 – 36	30 – 36
Solid State Drives	(6, 1 or 0) 200 GB	(6, 1 or 0) 200 GB	(6, 2 or 0) 200 GB	(6, 3 or 0) 200 GB	0, 2 or 4	0 or 3	0 or 4	0 or 6
ECC Memory (FBDiMM cache)	**Base Configuration:** 6 GB **Optional Configurations:** 6, 12, 24 or 48 GB				24 , 48, 96, 192 GB			
Front-end Networking	**Base Configuration:** 4 x Gigabit Ethernet (Twin-ax Copper) **Optional Configurations:** 4 x Gigabit Ethernet or 2 x Gigabit Ethernet & 2 x 10GE (SFP+ or Twin-ax Copper)				4 x Gigabit Ethernet or 2 x Gigabit Ethernet & 2 x 10GE (SFP+ or Twin-ax Copper)			4 x Gigabit Ethernet or 2 x Gigabit Ethernet & 2 x 10GE (SFP+)
CPU Type	Intel® Xeon® Processor							
Infrastructure Networking	2 InfiniBand connections with double data rate (DDR) or quad data rate (QDR) links							
Non-volatile RAM (NVRAM)	512 MB							
Typical Power Consumption @ 100v	4.0 A				8.0 A			
Typical Power Consumption @ 240v	1.7 A				3.0 A			
Typical Thermal Rating	1,370 BTU/hr				2,500 BTU/hr			

Cluster Attributes	X200	X400
Number of nodes	3 – 144	3 – 144
Capacity	12.6 TB – 5.2 PB	97.2 TB – 20.7 PB
Memory	18 GB – 6.9 TB	72 GB – 27.6 TB
Rack Units	6 – 288	12 – 576

PRODUCT ATTRIBUTES

Scale-out Architecture	Truly distributed, fully symmetric clustered architecture that combines modular storage nodes with EMC data and storage management software.
Modular Design	Self-contained nodes include server, software, and disks in your choice of 2U or 4U rack-mountable nodes.
Operating System	EMC 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 less than 10 minutes. Add performance and capacity in 60 seconds. Scale to over 20 PB per cluster and over 100 GBps throughput.
Protection Levels	FlexProtect file-level striping with support for N+1 through N+4 and mirroring data protection schemes.
Protocol Support	iSCSI, NFS v3 (UDP or TCP), SMB v1, HTTP, FTP, NDMP, SNMP, LDAP, ADS, NIS, HDFS
Client Support	Microsoft® Windows®, Linux, UNIX, Apple® Macintosh.
Software Compatibility	Compatible with all EMC Isilon licensable software including: SyncIQ™, SnapshotIQ™, SmartConnect™, SmartQuotas™, SmartPools™, InsightIQ™ and Aspera for Isilon IQ.

ENVIRONMENTAL SPECIFICATIONS

Power Supply	Dual-redundant, hot-swappable 650W for X200 (1050W for X400) 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	**X200:** Height: 3.48" (8.8 cm), Width: 18.87" (48 cm), Depth: 28.5" (72.4 cm), Weight: 58.2 lbs / 26.4 kg. **X400:** Height: 6.96" (17.7 cm), Width: 18.90" (48 cm), Depth: 31.25" (79.4 cm), Weight 118 lbs / 54 kg
Minimum Service Clearances	Front: 35" (88.9 cm), Rear: 14" (35.6 cm)

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