EMC ISILON X-SERIES

EMC Isilon X400

EMC Isilon X200

EMC Isilon 36000X, 72000X, 32000X-SSD

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 15 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.
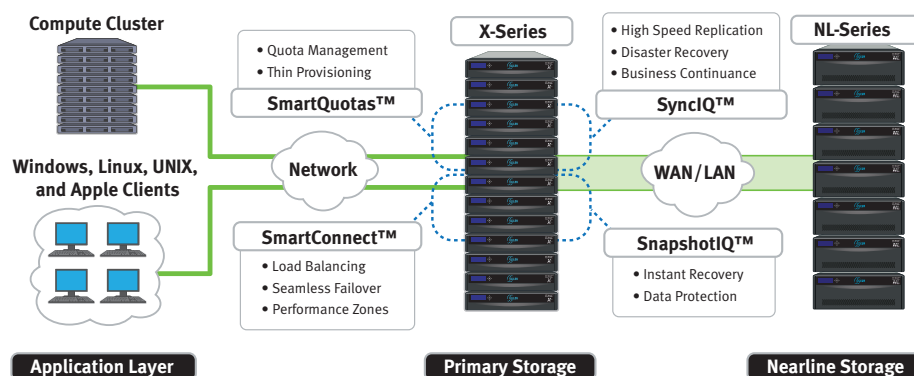
Simplicity: With its modular architecture and intelligent software, the Isilon X-Series makes deployment and management simple. Once racked, an X-Series cluster can be brought online in less than 10 minutes. With a single pool of storage with a global namespace, an X-Series cluster eliminates the need 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:

EMC²®

Node Attributes & Options	36000X	72000X	32000X-SSD	X200				X400		
				500 GB HDD	1 TB HDD	2 TB HDD	3 TB HDD	1 TB HDD	2 TB HDD	3 TB HDD
Capacity	36 TB	72 TB	32.4 TB	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
Hard Drives (3.5" SATA)	(36) 1 TB	(36) 2 TB	(32) 1 TB	6, 11 or 12	6, 11 or 12	6, 10 or 12	6, 9 or 12	32 – 36	33 – 36	32 – 36
Solid State Drives	N/A	N/A	(4) 100 GB	(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
ECC Memory (FBDiMM cache)	16 GB			**Base Configuration:** 6 GB **Optional Configurations:** 6, 12, 24 or 48 GB				24 – 192 GB		
Front-end Networking	4 x Gigabit Ethernet or 2 x Gigabit Ethernet & 2 x 10GE (SFP+ or Twin-ax Copper)			**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)		
CPU Type	Intel® Xeon® Processor E5 Family									
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	8.0 A			4.0 A				8.0 A		
Typical Power Consumption @ 240v	3.0 A			1.7 A				3.0 A		
Typical Thermal Rating	2,500 BTU/hr			1,370 BTU/hr				2,500 BTU/hr		

Cluster Attributes	36000X	72000X	32000X-SSD	X200	X400
Number of nodes	3 – 144	3 – 144	3 – 144	3 – 144	3 – 144
Capacity	108 TB – 5.2 PB	216 TB – 10.4 PB	97.2 TB – 4.7 PB	12.6 TB – 5.2 PB	97.2 TB – 15.5 PB
Memory	48 GB – 2.3 TB	48 GB – 2.3 TB	48 GB – 2.3 TB	18 GB – 6.9 TB	72 GB – 27.6 TB
Rack Units	12 – 576	12 – 576	12 – 576	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. Scales up to 15.5 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 (1200W for IQ 36000X/72000X, 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	Height: 3.48" (8.8 cm), Width: 18.87" (48 cm), Depth: 28.5" (72.4 cm), Weight: 58.2 lbs / 26.4 kg. **IQ 36000X/72000X/X400:** Height: 6.96" (17.7 cm), Width: 18.90" (48 cm), Depth: 31.25" (79.4 cm), Weight 130 lbs / 59 kg (118 lbs / 54 kg for X400)
Minimum Service Clearances	Front: 35" (88.9 cm), Rear: 14" (35.6 cm)

EMC²®