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. With SSD technology for file-system metadata, the Isilon X-Series significantly accelerates namespace-intensive operations.

Agility and flexibility: The EMC Isilon X-Series scales from a few terabytes (TB) to over 20 petabytes (PB) and over 100 gigabytes per second (GB/s) of throughput, all within a single file system. On-the-fly scaling allows you to quickly grow capacity and performance linearly or independently for ultimate agility.
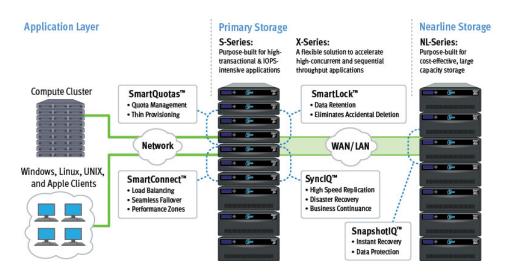
Simplicity: With its modular architecture and intelligent software, the Isilon X-Series makes deployment and management simple. Once racked, an X-Series cluster can be brought online in less than 10 minutes. With a single pool of storage with a global namespace, an X-Series cluster eliminates the need to support multiple volumes.

Unmatched efficiency: With Isilon, you can achieve highly efficient utilization rates—over 80 percent versus 50 percent for traditional NAS or SAN storage—and further reduce capacity requirements with the Isilon SmartDedupe™ data deduplication option. This translates into greater overall efficiency and lower acquisition and operating costs.

Security: With FIPS 140-2 level 2 self-encrypting drives, the X-Series platform allows you to meet regulatory and compliance needs for securing data at rest. The X-Series with SED nodes provide security without sacrificing performance or usability.

Specifications

ARCHITECTURE

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EMC ISILON X-SERIES NODE SPECIFICATIONS

ISILON X200 NODE ATTRIBUTES & OPTIONS	1 TB HDD	2 TB HDD	3 TB HDD
Capacity	7.2–12 TB	13.2–24 TB	19.2–36 TB
Hard drives (3.5″ 7200 RPM)	6, 11, or 12	6, 10, or 12	6, 9, or 12
Solid-state drives (200 GB)	6, 1, or 0	6, 2, or 0	6, 3, or 0
Self-encrypting drive (SED) option (7200 RPM)	No	No	Yes FIPS 140-2 level 2 validated SEDs
System ECC memory	Base configuration: 6 GB Optional configurations: 6, 12, 24, or 48 GB		
Front-end networking	Base configuration: 4 x Gigabit Ethernet (twin-ax copper) Optional configurations: 4 x Gigabit Ethernet or 2 x Gigabit Ethernet and 2 x 10GE (SFP+ or twin-ax copper)		
Drive controller	SATA-3, 6 Gb/s		
CPU type	Intel® Xeon® processor		
Infrastructure networking	2 InfiniBand connections with double data rate (DDR) links		
Non-volatile RAM (NVRAM)	512 MB		
Typical power consumption @ 100v	400 Watts		
Typical power consumption @ 240v	408 Watts		
Typical thermal rating	1,370 BTU/hr		

ISILON X400 NODE ATTRIBUTES & OPTIONS	1 TB HDD	2 TB HDD	3 TB HDD	4 TB HDD
Capacity	33.6–36 TB	67.2–72 TB	97.6–108 TB	122.4–144 TB
Hard drives (3.5″ 7200 RPM)	32–36	33–36	32–36	30–36
Solid-state drives (400 or 800 GB)	0, 2, or 4	0 or 3	0 or 4	0 or 6
Self-encrypting drive (SED) option (7200 RPM)	No	No	Yes FIPS 140-2 level 2 validated SEDs	No
System ECC memory	24, 48, 96, 192 GB			
Front-end networking	4 x Gigabit Ethernet or 2 x Gigabit Ethernet and 2 x 10GE (SFP+ or twin-ax copper)			4 x Gigabit Ethernet or 2 x Gigabit Ethernet and 2 x 10GE (SFP+)
Drive controller	SATA-3, 6 Gb/s			
CPU type	Intel Xeon processor			
Infrastructure networking	2 InfiniBand connections with double data rate (DDR) links			
Non-volatile RAM (NVRAM)	512 MB			
Typical power consumption @ 100v	800 Watts			
Typical power consumption @ 240v	720 Watts			
Typical thermal rating	2,500 BTU/hr			

CLUSTER ATTRIBUTES	X200	X400
Number of nodes	3–144	3–144
Capacity	21.6 TB–5.2 PB	100.8 TB–20.7 PB
Memory	18 GB–6.9 TB	72 GB–27.6 TB
Rack units	6–288	12–576

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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 back-end 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 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
Data encryption option	FIPS 140-2 level 2 validated self-encrypting drives (SEDs) with unique AES-256 bit strength keys assigned to each drive
Security	File system audit capability to improve security and control of your storage infrastructure and address regulatory compliance requirements
Efficiency	SmartDedupe data deduplication option, which can reduce storage requirements by up to 35 percent
Protocol support	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™, SmartDedupe, SmartQuotas™, SmartPools®, InsightIQ™, and Aspera for Isilon

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
Dimensions/ Weight	X200: height: 3.48" (8.8 cm), width: 18.87" (47.9 cm), depth: 28.5" (72.4 cm), weight: 61 lbs (27.7 kg) X400: height: 6.96" (17.7 cm), width: 18.90" (48 cm), depth: 31.25" (79.4 cm), weight: 127 lbs (57.7 kg)
Minimum service clearances	Front: 35" (88.9 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.

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