



Isilon X410



Isilon X210

ISILON X-SERIES

The Dell EMC Isilon X-Series, powered by the Isilon OneFS operating system, uses a highly versatile yet simple scale-out storage architecture to speed access to massive amounts of data, while dramatically reducing cost and complexity. The Isilon X-Series is comprised of two product lines — the Isilon X210, a 2U platform, and the Isilon X410, a 4U platform. The Isilon X-Series is highly flexible and strikes the balance between large capacity and high-performance storage. The X-Series is an ideal solution for high-throughput and high-concurrency applications. With SSD technology for file system metadata and file-based storage workflows, the Isilon X-Series also accelerates namespace-intensive operations.

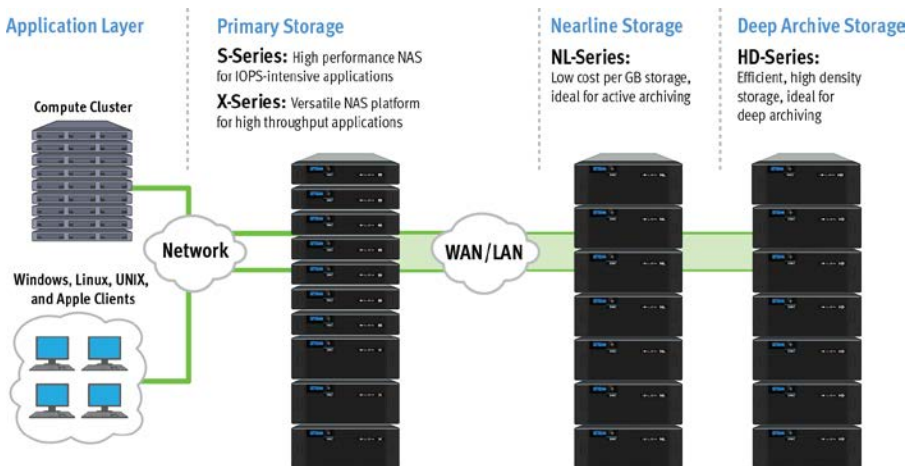
Agility: The Isilon X-Series scales from a few terabytes (TB) up to 20 petabytes (PB) and up to 200 gigabytes per second (GB/s) of throughput within a single cluster.¹ When needed, you can scale capacity and performance by adding a node in about a minute.

Simplicity: With its modular architecture, the Isilon X-Series makes deployment and management simple. Once racked, an X-Series cluster can be brought online in about 10 minutes. With a single pool of storage with a global namespace, an X-Series cluster eliminates the need to support multiple volumes and simplifies management.

Efficiency: With Isilon, you can achieve highly efficient utilization rates—up to 80 percent compared to about 50 percent for traditional storage. Isilon's SmartDedupe data deduplication option allows you to further reduce your storage requirements by up to 30 percent. This translates into lower acquisition and operating costs.

Security: With optional 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 without sacrificing performance or usability.

ARCHITECTURE



ISILON X-SERIES NODE SPECIFICATIONS

| ISILON X210 NODE ATTRIBUTES & OPTIONS Requires Isilon OneFS 7.2.1 operating system or later | 1 TB HDD | 2 TB HDD | 3 TB HDD | 4 TB HDD |
|--|--|----------|-----------------------|-----------------------|
| CAPACITY ¹ | 6-12 TB | 12-24 TB | 18-36 TB | 24-48 TB |
| HARD DRIVES (3.5" 7200 RPM) | 6-12 | 6-12 | 6-12 | 6-12 |
| SELF-ENCRYPTING DRIVE (SED HDD) OPTION (7200 RPM) | No | No | Yes | Yes |
| SOLID-STATE DRIVES (200, 400, OR 800 GB) | Up to 6 | Up to 6 | Up to 6 | Up to 6 |
| SELF-ENCRYPTING DRIVE (SED SSD) OPTION (800 GB) | No | No | Yes (0, 1, 2 or 4) | Yes (0, 1, 2 or 4) |
| SYSTEM ECC MEMORY | 24 GB or 48 GB | | | |
| FRONT-END NETWORKING | 2 x 1 Gigabit Ethernet and 2 x 10GbE (SFP+ or twin-ax copper) | | | |
| NETWORK INTERFACES | Isilon network interfaces support IEEE 802.3 standards for 10Gbps, 1Gbps, and 100Mbps network connectivity | | | |
| DRIVE CONTROLLER | SATA-3, 6 Gb/s | | | |
| CPU TYPE | Single Intel® Xeon® Processor E5-2407 @ 2.4 GHz, 4 Core | | | |
| INFRASTRUCTURE NETWORKING | 2 InfiniBand connections supporting DDR and QDR links | | | |
| NON-VOLATILE RAM (NVRAM) | 2 GB | | | |
| TYPICAL POWER CONSUMPTION @ 100V | 400 Watts | | | |
| TYPICAL POWER CONSUMPTION @ 240V | 400 Watts | | | |
| TYPICAL THERMAL RATING | 1,370 BTU/hr | | | |

| ISILON X410 NODE ATTRIBUTES & OPTIONS Requires Isilon OneFS 7.2.1 operating system or later | 1 TB HDD | 2 TB HDD | 3 TB HDD | 4 TB HDD |
|--|--------------------------|----------|------------------------|------------------------|
| CAPACITY ¹ | 30–36 TB | 60–72 TB | 90–108 TB | 120–144 TB |
| HARD DRIVES (3.5" 7200 RPM) | 30–36 | 30–36 | 30–36 | 30–36 |
| SELF-ENCRYPTING DRIVE (SED HDD) OPTION (7200 RPM) | No | No | Yes | Yes |
| SOLID-STATE DRIVES (200, 400, OR 800 GB) | 0-6 | 0-6 | 0-6 | 0-6 |
| SELF-ENCRYPTING DRIVE (SED SSD) OPTION (800 GB) | No | No | Yes (0, 2, 4, or 6) | Yes (0, 2, 4, or 6) |
| SYSTEM ECC MEMORY | 64 GB, 128 GB, or 256 GB | | | |

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|----------------------------------|---|
| FRONT-END NETWORKING | 2 x 1 Gigabit Ethernet and 2 x 10GE (SFP+ or twin-ax copper) or 2 x 1 Gigabit Ethernet and 2 x 40GbE (QSFP+) (Requires OneFS 8.0.0.1 or higher) |
| NETWORK INTERFACES | Isilon network interfaces support IEEE 802.3 standards for 10Gbps, 1Gbps, and 100Mbps network connectivity |
| DRIVE CONTROLLER | SATA-3, 6 Gb/s |
| CPU TYPE | Dual, 8-core Intel® Xeon® processor |
| INFRASTRUCTURE NETWORKING | 2 InfiniBand connections supporting DDR and QDR links |
| NON-VOLATILE RAM (NVRAM) | 2 GB |
| TYPICAL POWER CONSUMPTION @ 100V | 700 Watts |
| TYPICAL POWER CONSUMPTION @ 240V | 700 Watts |
| TYPICAL THERMAL RATING | 2,400 BTU/hr |

| CLUSTER ATTRIBUTES | X210 | X410 |
|-----------------------|-----------------|-------------------|
| NUMBER OF NODES | 3-144 | 3-144 |
| CAPACITY ¹ | 18 TB to 6.9 PB | 108 TB to 20.7 PB |
| MEMORY | 72 GB to 6.9 TB | 192 GB to 36.8 TB |
| RACK UNITS | 6-288 | 12-576 |

| PRODUCT ATTRIBUTES | |
|------------------------|---|
| SCALE-OUT ARCHITECTURE | Truly distributed, fully symmetric clustered architecture that combines modular storage nodes with Isilon 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 | 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 | Scales from 3 to 144 nodes in a single cluster with up to 20.7 PB capacity and 200 GB/s concurrent throughput; add a node to scale performance and capacity in 60 seconds |
| DATA PROTECTION | FlexProtect™ file-level striping with support for N+1 through N+4 and mirroring data protection schemes |

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|------------------------|--|
| 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 | NFSv3, NFSv4, NFS Kerberized sessions (UDP or TCP), SMB1 (CIFS), SMB2, SMB3 Multichannel, HTTP, FTP, NDMP, SNMP, LDAP, HDFS, ADS, NIS reads/writes |
| CLIENT SUPPORT | Microsoft® Windows®, Linux, UNIX®, Apple® Macintosh® |
| SOFTWARE COMPATIBILITY | Compatible with all Isilon licensable software including: CloudPools™, SyncIQ, SnapshotIQ™, SmartConnect™, SmartDedupe, SmartQuotas™, SmartPools®, InsightIQ™, and Aspera for Isilon |

ENVIRONMENTAL SPECIFICATIONS

| | |
|----------------------------|--|
| POWER SUPPLY | X210: Dual-redundant, hot-swappable 650W power supplies with power factor correction (PFC) X410: Dual-redundant, hot-swappable 1100W 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 | X210: height: 3.48" (8.8 cm), width: 18.87" (47.9 cm), depth: 28.5" (72.4 cm), weight: 61 lbs (27.7 kg) X410: height: 6.96" (17.7 cm), width: 18.90" (48 cm), depth: 28.5" (72.4 cm), weight: 120 lbs (54.5 kg) |
| MINIMUM SERVICE CLEARANCES | Front: 35" (88.9 cm), rear: 14" (35.6 cm) |

¹ Usable capacity will be lower than the raw capacity reflected in this specification sheet.

SAFETY AND EMI COMPLIANCE

Statement of Compliance

This Information Technology Equipment is compliant with the electromagnetic compatibility (EMC) and product safety regulations/standards required by the countries in which the product is sold. EMC compliance is based on FCC part 15, CISPR22/CISPR24 and EN55022/EN55024 standards, including applicable international variations. EMC compliant Class A products are marketed for use in business, industrial, and commercial environments. Product Safety compliance is based on IEC 60950-1 and EN 60951-1 standards, including applicable national deviations.

This Information Technology Equipment is in compliance with EU RoHS Directive 2011/65/EU.

The individual devices used in this product are approved under a unique regulatory model identifier that is affixed to each individual device rating label, which may differ from any marketing or product family name in this datasheet.

For additional information see <https://support.emc.com> under the Safety & EMI Compliance Information tab.

TAKE THE NEXT STEP

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