



Isilon IQ X-Series

Flexibility, Scalability, Performance

Scalability & Performance

- High concurrent access and scalable capacity in a single global namespace
- Scalable up to 10.4 PB
- Maximum aggregate throughput of over 45 GBps
- 60-second on-the-fly scaling of capacity and/or performance
- Namespace Operation Acceleration via SSD
- Up to N+4 data protection, set at cluster, directory, or file level

Use Cases

The Isilon X-Series, powered by the OneFS Operating System is ideal for high-concurrency and high-throughput applications and workflows.

- **Digital Media:** broadcast, post production, and DI (digital intermediate)
- **Internet/Web 2.0:** online video, audio, and image serving; Web-analytics
- **Life Sciences:** genetic sequencing and large scale microscopy environments
- **Electronic Design Automation:** design team collaboration, design libraries, tool scripts, and design implementation databases
- **Virtualized Environments:** Tier 2 and Tier 3 workloads
- **HPC and Research:** Large sequential IO and throughput. Tier 2 results analysis and instrument data.

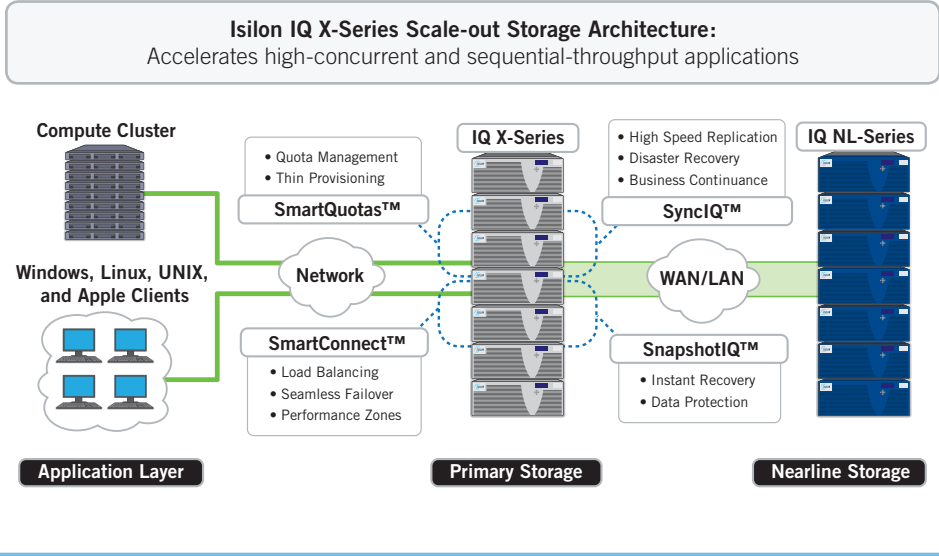
The Isilon IQ X-Series, powered by the OneFS® operating system, uses Isilon's powerful yet simple scale-out storage architecture to speed access to massive amounts of critical data, while dramatically reducing cost and complexity. The Isilon IQ X-Series delivers a flexible solution to accelerate your 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 Isilon X-Series is the first scale-out storage solution capable of scaling from a few terabytes to multiple petabytes and up to 45 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: Isilon's modular architecture and intelligent software make deployment and management simple. Once racked, you can have an X-Series cluster online in less than 10 minutes, without time-consuming, expensive integration services. An X-Series cluster provides a single pool of storage with a global namespace, eliminating the need to support multiple volumes and file systems.

High Efficiency: Isilon scale-out storage delivers much higher utilization rates than traditional NAS or SAN storage—over 80 percent versus 50 percent for competing solutions. That translates into greater overall efficiency, resulting in lower acquisition, operating, and maintenance costs. Low power consumption and maximum density further ensure the ultra-low overhead of Isilon storage.

The Isilon IQ X-Series provides the performance, scalability, and agility to conquer your storage challenges.



Isilon X-Series Product Specifications

Product Attributes

Scale-out Architecture	Truly distributed, fully symmetric clustered architecture that combines modular storage nodes with Isilon's intelligent software.
Modular Design	Self-contained nodes include server, software, and disks in a 2U rack-mountable node (4U for the IQ 36000X/72000X).
Operating System	Sixth-generation 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 under 10 minutes. Add performance and capacity in 60 seconds. Up to 10.4 PB and 45 GBps throughput.
Protection Levels	FlexProtect file-level striping with support for N+1 through N+4 and mirroring data protection schemes.
Protocol Support	NFS v3 (UDP or TCP), CIFS, HTTP, FTP, NDMP, SNMP, LDAP, ADS, NIS reads/writes.
Client Support	Microsoft® Windows®, Linux, UNIX, Apple® Macintosh.
Isilon Software Compatibility	Compatible with all Isilon licensable software: 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) 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: Height: 6.96" (17.7 cm), Width: 18.90" (48 cm), Depth: 31.25" (79.4 cm), Weight 130 lbs / 59 kg
Minimum Service Clearances	Front: 35" (88.9 cm), Rear: 14" (35.6 cm)

Isilon IQ Node Attributes	1920X	6000X / 12000X	36000X / 72000X	10000X-SSD	32000X-SSD
Capacity	1.92	6.00 / 12.00 TB	36.00 / 72.00 TB	10.2TB	32.4 TB
Hard Drives (3.5" SATA-2)	Twelve (12) 160	Twelve (12) 500 GB / 1 TB	Thirty-six (36) 1 / 2 TB	Ten (10) 1 TB	Thirty-two (32) 1 TB
Solid State Drives (SLC)	N/A	N/A	N/A	Two (2) 100 GB	Four (4) 100 GB
Storage Expansion	N/A	Serial Attached SCSI	N/A	N/A	N/A
Infrastructure Networking	2 InfiniBand connections				
Non-volatile RAM (NVRAM)	512 MB				
ECC Memory (FBDiMM cache)	4 GB		16 GB		
CPU Type	2.33 GHz Quad-core Intel Xeon		Dual 2.33 GHz Quad-core Intel Xeon		
Front-end Networking	2 x GigE (Copper)		4 x GigE OR 2 x GigE & 2 x 10GE (SFP+ or Copper)		
Typical Power Consumption @ 100v	3.6A		8.0A	3.6A	8.0A
Typical Power Consumption @ 240v	1.5A		3.0A	1.5A	3.0A
Typical Thermal Rating	1,250 BTU/hr		2,500 BTU/hr	1,250 BTU/hr	2,500 BTU/hr

Isilon IQ Cluster Attributes (min. to max.)	1920X – 12000X	36000X – 72000X	10000X-SSD	32000X-SSD
Number of nodes	3 to 144	3 to 144	3 to 144	3 to 144
Capacity (TB)	5.7 to 1,728	108 to 10,368	30.6 to 1468.8	97.2 to 4,665.6
Memory (GB)	12 to 576	12 to 2304	12 to 2,304	48 to 2,304
Rack Units (RU)	6 to 288	12 to 576	6 to 288	6 to 288

Isilon's Comprehensive Storage Solutions... Powerful, Yet Simple

The Isilon IQ X-Series product line, along with the Isilon IQ S-Series and NL-Series product lines, provide a complete portfolio of innovative solutions that drive business value for customers by optimizing their mission-critical applications, workflows, and processes. Isilon enables enterprises and research organizations worldwide to manage large and rapidly growing amounts of data in a highly-scalable, easy-to-manage, and cost-effective way.

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