

Isilon IQ X-Series Storage System

Flexibility, Scalability, Performance



Key Features

- Single file system and shared global namespace, scalable up to 5.2 PB
- 60-second on-the-fly scaling of capacity and performance
- Maximum aggregate throughput of over 45 GBps
- Up to N+4 data protection, set at cluster, directory, or file level

Use Cases

High-Concurrency and High-Throughput Applications and Workflows. The IQ 36000X is ideal for use cases including:

- **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

Accelerate the Flow of Critical File-Based Data Throughout the Enterprise

The amount of file-based data surging through your enterprise is increasing exponentially. Cost-effectively managing, storing, and providing access to this critical data has become essential to the overall productivity and agility of your business. Isilon can help.

The Isilon IQ X-Series, powered by OneFS®, uses innovative clustered storage architecture to speed access to massive amounts of critical file-based data, while dramatically reducing the cost and complexity of managing and storing it. If you need a flexible solution to accelerate your high-concurrent and sequential-throughput applications, the Isilon IQ X-Series delivers.

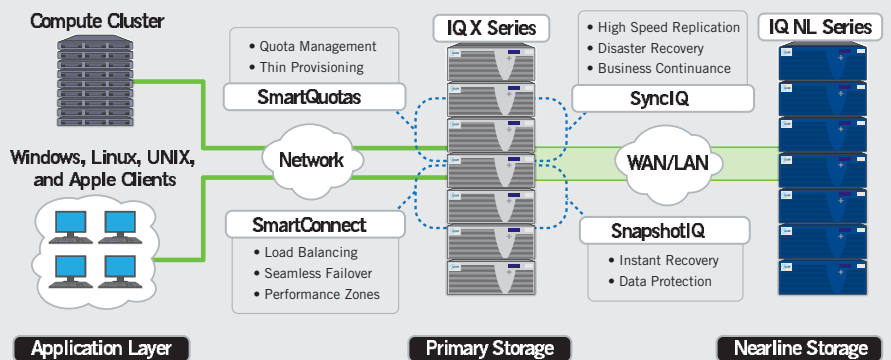
Agility and Flexibility: Your business is dynamic. Your storage solution should be as well. The Isilon X-Series is the first scale-out network-attached storage (NAS) solution capable of seamlessly scaling from a few terabytes to multiple petabytes and up to 45 gigabytes per second (GBps) of throughput, 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.

Ease of Use: 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. And 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 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 an Isilon cluster.

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

Isilon IQ X-Series Storage Architecture: Accelerates high-concurrent and sequential-throughput applications



Isilon X-Series Product Specifications

Product Attributes

Clustered 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).
Operating System	Fifth-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 5.2 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™, and Aspera for Isilon IQ.

Environmental Specifications

Power Supply	Dual-redundant, hot-swappable 650W (1200W for IQ 36000X) 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: 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)

Node Attributes	Isilon IQ 1920X	Isilon IQ 3000X	Isilon IQ 6000X	Isilon IQ 9000X	Isilon IQ 12000X	Isilon IQ 36000X
Capacity	1.92 TB	3.00 TB	6.00 TB	9.00 TB	12.00 TB	36.00 TB
Hard Drives (3.5" SATA-2)	Twelve (12) 160 GB	Twelve (12) 250 GB	Twelve (12) 500 GB	Twelve (12) 750 GB	Twelve (12) 1 TB	Thirty-six (36) 1 TB
Storage Expansion	N/A	N/A	Serial Attached SCSI	Serial Attached SCSI	Serial Attached SCSI	N/A
Infrastructure Networking	2 InfiniBand connections					
Non-volatile RAM (NVRAM)	512 MB					
ECC Memory (FBDiMM cache)	4 GB					16 GB
CPU Type	2.0 GHz Quad-core Intel Xeon					Dual 2.33 GHz Quad-core Intel Xeon
Front-end Networking	2 copper 1000 Base-T (GigE)					4 copper 1000 Base-T (GigE)
Typical Power Consumption @ 100v	3.6A					8.0A
Typical Power Consumption @ 240v	1.5A					3.0A
Typical Thermal Rating	1,250 BTU/hr					2,500 BTU/hr

Cluster Attributes (min. to max.)	Isilon IQ 1920X	Isilon IQ 3000X	Isilon IQ 6000X	Isilon IQ 9000X	Isilon IQ 12000X	Isilon IQ 36000X
Number of nodes	3 to 144	3 to 144	3 to 144	3 to 144	3 to 144	3 to 144
Capacity (TB)	5.7 to 276	9 to 432	18 to 864	27 to 1,296	36 to 1,728	108 to 5,184
Memory (GB)	12 to 576	12 to 576	12 to 576	12 to 576	12 to 576	48 to 2,304
Rack Units (RU)	6 to 288	6 to 288	6 to 288	6 to 288	6 to 288	12 to 576

Isilon's Comprehensive Storage Solutions

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 file-based data in a highly-scalable, easy-to-manage, and cost-effective way.

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