



Scale-out Storage Platform Nodes

Isilon IQ NL-Series Storage System

Redefining the Economics of Nearline Storage



Key Features

- 36, 72 or 108 TB per 4U chassis, scalable up to 15.5 PB
- Single file system and global namespace
- Over 80% capacity utilization rate
- 60-second on-the-fly scaling of capacity and performance
- Up to N+4 data protection, set at cluster, directory, or file level

Use Cases

Seamless Enterprise Integration.

The Isilon NL-Series compliments and improves existing tape backup, archiving, and data protection strategies, including:

- Nearline Archiving: For economical storage and rapid disk-based access to reference data to meet business and legal requirements.
- Disaster Recovery: When combined with the Isilon SynclQ[™] replication application, a proven solution for organizations whose multi-site replication strategy requires an economical, high-capacity storage device to be located remotely.
- Disk-to-Disk Backup: Can be combined with compression and de-duplication technology to deliver a highly scalable, reliable, easy-to-manage and economical disk-based back up target.

Isilon's Innovative Scale-Out NAS Technology for Nearline Storage

As the proliferation of file-based data continues to accelerate, the challenge of cost-effectively storing and managing data is an ever-growing concern. You also have to weigh the cost of storing certain aging data sets against the need for quick access. Meeting this challenge requires a solution that bridges the gap between high-performance, but costly, primary storage and inexpensive, but management-intensive, off-line storage solutions.

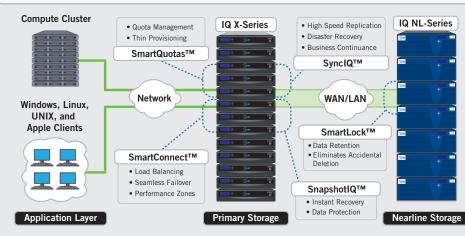
The Isilon IQ NL-Series scale-out storage solution redefines the economics of nearline storage by combining near-primary accessibility, near-tape value and ease of use.

High Value: The NL-Series is built for cost-effective, large-capacity storage. It offers the best dollar per terabyte (\$/TB) of any scale-out storage solution on the market. Each Isilon IQ NL node houses 36 SATA Hard Disk Drives (1TB, 2TB or 3TB) in a 4U chassis, allowing you to seamlessly scale up to 15.5 PB in a single file system.

Simplicity: You can configure and bring an Isilon NL-Series cluster online in as little as 10 minutes, without the need for time-consuming, expensive integration services. With a single pool of storage with a global namespace—the NL-Series eliminates the need for multiple volumes, making the NL-Series' massive capacity as easy to manage as a single terabyte.

Breakthrough Economics: The NL-Series offers the ultimate in storage economics with low acquisition costs and ultra-low overhead. Isilon's high utilization rates—over 80 percent versus 50 percent for traditional NAS or SAN storage—mean fewer spindles provide the same amount of usable storage. And Isilon's pay-as-you-grow modular approach and forward compatibility allow you to purchase only what your organization needs today, with the ability to easily expand tomorrow.

Isilon IQ NL-Series Scale-out Storage Architecture: Nearline storage delivering near-primary performance at near-tape cost



Isilon NL-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 4U rack-mountable node.					
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 15.5 PB.					
Data Protection	FlexProtect file-level striping with support for N+1 through N+4 and mirroring data protection schemes.					
Data Replication	SynclQ fast and flexible file-based asynchronous replication					
Data Retention	SmartLock policy-based retention and protection against accidental deletion					
Network Protocol Support	NFSv3, NFSv4, NFS Kerberized Sessions (UDP or TCP), iSCSI, SMB1 (CIFS), SMB2, 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: SmartLock™, Isilon for vCenter™, SynclQ™, SnapshotlQ™, SmartConnect™, SmartQuotas™, SmartPools™, InsightlQ™ and Aspera for Isilon IQ.					

Environmental Specifications

Power Supply	Dual redundant, hot-swappable 1200W 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: 6.96" (17.7 cm), Width: 18.9" (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 36NL	Isilon IQ 72NL	Isilon IQ 108NL		
Capacity	36 TB	72 TB	108 TB		
Hard Drives (3.5" SATA)	36 (Thirty-six) 1 TB	36 (Thirty-six) 2 TB	36 (Thirty-six) 3 TB		
ECC Memory (FBDiMM Cache)	4 (GB	16 GB		
CPU Type	2.33 GHz (quad core	111101710011	Dual 2.33 GHz Intel Xeon (quad core) processors		
Front-end Networking	2 x GigE (C 2 x GigE & (SFP+ or Twi	2 x 10GE	4 x GigE (Copper) OR 2 x GigE & 2 x 10GE (SFP+ or Twin-ax Copper		
Infrastructure Networking	2 InfiniBand connections per node				
Typical Power Consumption @ 100v	800W				
Typical Power Consumption @ 240v	720W				
Typical Thermal Rating	2,500 BTU/hr				
Non-volatile RAM (NVRAM)	512 MB				
External Indicators	Cluster status and alert (LED) and front-panel LCD				

Cluster Scalability: Isilon IQ 36NL					
Cluster Size (Number of Nodes)	3	10	50	96	144
Capacity	108 TB	360 TB	1.8 PB	3.45 PB	5.18 PB
Rack Units	12	40	200	384	576

Cluster Scalability: Isilon IQ 72NL					
Cluster Size (Number of Nodes)	3	10	50	96	144
Capacity	216 TB	720 TB	3.6 PB	6.9 PB	10.4 PB
Rack Units	12	40	200	384	576

Cluster Scalability: Isilon IQ 108NL					
Cluster Size (Number of Nodes)	3	10	50	96	144
Capacity	324 TB	1080 TB	5.4 PB	10.4 PB	15.5 PB
Rack Units	12	40	200	384	576

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

The Isilon IQ NL-Series, along with the Isilon IQ X-Series and S-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.

Isilon Systems, Inc. • www.isilon.com 3101 Western Ave, Seattle, WA 98121 **Toll-Free:** 877-2-ISILON • **Phone:** +1-206-315-7602 **Fax:** +1-206-315-7501 • **Email:** sales@isilon.com

