SPECIFICATION SHEET

Isilon HD400

ISILON HD-SERIES

The rapid growth of unstructured data combined with increasingly stringent compliance requirements is resulting in a growing need for efficient data archiving solutions that can store and protect data for long-term retention.

Dell EMC Isilon HD-Series scale-out NAS storage solutions, featuring the Isilon HD400, address these challenges by providing large-scale high density, deep archiving data storage solutions that offer unmatched efficiency to lower costs and robust data protection options.

Massive Scalability: The HD-Series is built for efficient, large-capacity storage. Each Isilon HD node houses 59 hard disk drives with a capacity choice of 6 TB or 8 TB per drive in a 4U chassis, allowing you to scale to 68 PB in a single file system.[1]

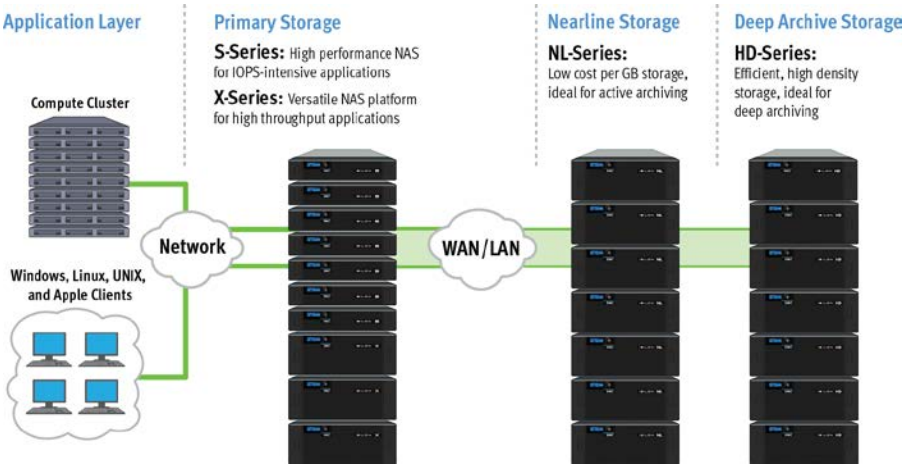
Efficiency: With Isilon, you can achieve highly efficient utilization rates—up to 80 percent versus 50 percent for traditional storage. You can further reduce capacity requirements with the Isilon SmartDedupe™ data deduplication option. The high density architecture of the HD-Series also serves to reduce data center space, power and cooling requirements to further lower costs. This translates into greater overall efficiency and lower operating costs.

Simplicity: You can configure and bring an Isilon HD-Series cluster online in as little as 10 minutes. With a single pool of storage with a global namespace, the HD-Series eliminates the need to manage multiple volumes, thereby greatly simplifying the management of your growing data archive environment.

Data Protection: Isilon HD-Series storage is highly resilient and offers N+1 through N+4 redundancy. With Isilon you may also choose from a variety of efficient and proven enterprise data backup and disaster recovery options.

Security: Isilon offers robust security options, including file system auditing, roles-based access control (RBAC) to provide a clear separation between storage administration and file system access, and SEC 17a-4 compliant write once-read many (WORM) protection to prevent accidental or malicious data alteration or deletion.

ARCHITECTURE



ISILON HD-SERIES NODE SPECIFICATIONS

ISILON HD400 NODE ATTRIBUTES & OPTIONS	6 TB HDD	8 TB HDD
CAPACITY[1]	354 TB	472 TB
HARD DRIVES (3.5” 7200 RPM)	59	59
SOLID STATE DRIVES	1 x 800 GB	1 x 1.6 TB
SELF-ENCRYPTING DRIVE (SED) OPTION	Yes	Yes
ISILON ONEFS OPERATING SYSTEM VERSION REQUIRED	7.2 or higher without SED 8.0 or higher with SED	8.0 or higher
SYSTEM ECC MEMORY	24 GB or 48 GB	24 GB or 48 GB
FRONT-END NETWORKING	2 x Gigabit Ethernet and 2 x 10GE (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	SATA-3, 6 Gb/s
CPU TYPE	Intel® Xeon® Processor E5-2407 v2 (10M Cache, 2.40 GHz)	
INFRASTRUCTURE NETWORKING	2 InfiniBand connections with quad data rate (QDR) links	
NON-VOLATILE RAM (NVRAM)	2 GB	2 GB
TYPICAL POWER CONSUMPTION @ 100V	N/A	N/A
TYPICAL POWER CONSUMPTION @ 240V	1100 Watts	1100 Watts
MAXIMUM POWER CONSUMPTION @ 240V	1300 Watts	1300 Watts
TYPICAL THERMAL RATING	2900 to 3750 BTU/hr	2900 to 3750 BTU/hr

ISILON HD400 CLUSTER ATTRIBUTES

NUMBER OF NODES:	Capacity[1]:	Memory:	Rack units:
3 TO 144	1.06 PB to 68.0 PB	72 GB to 6.9 TB	12 to 576

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

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 a 4U rack-mountable node
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 68 PB capacity[1]; 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
DATA REPLICATION	Replicate and distribute large data sets to multiple shared storage systems in multiple sites for resilient disaster recovery capability with Isilon SyncIQ®
DATA RETENTION	Protect data against accidental, premature, or malicious alteration or deletion with Isilon SmartLock® software-based approach to write once read many (WORM)
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

ENVIRONMENTAL SPECIFICATIONS

POWER SUPPLY	Dual-redundant, hot-swappable 1450W power supplies with power factor correction (PFC) Note: HD400 supports 220V only
OPERATING ENVIRONMENT	50° F to 95° F (10° C to 35° C), 5% to 95% relative humidity, non-condensing
DIMENSIONS/WEIGHT	Height: 6.96” (17.7 cm), width: 18.9” (48 cm), depth: 35” (88.9 cm), weight: 220 lbs (100 kg)
MINIMUM SERVICE CLEARANCES	Front: 40” (88.9 cm), rear: 30” (76.2 cm)

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

HD400 CABINET SPECIFICATIONS

	Titan P (Standard Normal Depth 40U Cabinet)	Titan D (Deep 40U Cabinet)	
		Single Phase Option	Three Phase Option
AC LINE VOLTAGE	200 to 240 Vac ± 10%, single phase, 47 to 63 Hz	200 to 240 Vac ± 10%, single phase, 47 to 63 Hz	Vin: 200-240Vac; Iin: 40A; Fr: 50/60 Hz; 3-Phase: 3W+PE
POWER CONFIGURATION	Two power domains (base and extended), each redundant	One, two, three or four power domains, each redundant	Two power domains (base and extended), each redundant
POWER INLET COUNT	Either two (for redundant base configuration) or four (for redundant extended configuration)	Two, four, six, or eight (two per domain)	Two
PLUG TYPES	NEMA L6-30P or IEC309-332 P6 or IP57 (Australia)	NEMA L6-30P or IEC309-332 P6 or IP57 (Australia)	Anderson 2xSBS50 connector assembly for Inlet Power; C13 Outlets
INPUT POWER CAPACITY	4,800 VA @ 200 Vac, 5,760 VA @240 Vac (base configuration) 9,600 VA @ 200 Vac, 11,520 VA @240 Vac (extended configuration)	1 Domain: 4,800 VA @ 200 Vac, 5,760 VA @240 Vac 2 Domain: 9,600 VA @ 200 Vac, 11,520 VA @240 Vac 3 Domain: 14,400 VA @200Vac, 17,280 VA @240 Vac 4 Domain: 19,200 VA @200 Vac, 23,040 VA @ 240 Vac	See “HD400 Cabinet Power Cord and Connector Specifications” below
AC PROTECTION	30 A site circuit breakers on each power branch	30 A site circuit breakers on each power branch (8 max)	20A site circuit breakers on each branch (8 total)
40U CABINET DIMENSIONS	Height – 75 in (190.8 cm); Width – 24.0 in (61.1 cm); Depth – 39.0 in (99.2 cm); Weight Empty – 380 lb (173 kg)	Height – 75 in (190.8 cm); Width – 24.0 in (61.1 cm); Depth – 44.0 in (111.8 cm); Weight Empty – 435 lb (197.3 kg)	Height – 75 in (190.8 cm); Width – 24.0 in (61.1 cm); Depth – 44.0 in (111.8 cm); Weight Empty – 435 lb (197.3 kg)

HD400 CABINET POWER CORD AND CONNECTOR SPECIFICATIONS

PDU LINE CORD AND JUMPER CONFIGURATION (2 PDU'S ONE SIDE OF THE RACK)	Number of Line Cords Used	Outlet Connector Bank Voltage	Max Power (TUV) Outlet Connector 10 AMP Bank Rated	Max Power (UL) Outlet Connector 16 AMP Bank Rated
ONE LINE CORD CONNECTED TO 1PDU (P1)	1	200 Vac	46A /9200VA	64A / 12800VA
ONE LINE CORD CONNECTED TO 1PDU (P1) – JUMPER INSTALLED IN PDU1 (J1) TO PDU2 (P1)	1	200 Vac	92A / 18400VA	128A / 25600VA
ONE LINE CORD CONNECTED TO 1PDU (P1) – ONE LINE CORD CONNECTED TO 2PDU (P1)	2	200 Vac	92A / 18400VA	128A / 25600VA

SAFETY AND EMI 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

Contact your Dell EMC sales representative or authorized reseller to learn more about how the Isilon HD-Series can benefit your organization.

Shop Dell EMC Isilon to compare features and get more information.

Learn more about Dell EMC [product name] solutions]

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