

# ISILON HYBRID SCALE-OUT NAS STORAGE



Isilon H400



Isilon H500



Isilon H600

Dell EMC Isilon hybrid storage platforms, powered by the OneFS operating system, use a highly versatile yet simple scale-out storage architecture to speed access to massive amounts of data, while dramatically reducing cost and complexity. Isilon hybrid storage is highly flexible and strikes the balance between large capacity and high-performance storage to provide support for a broad range of enterprise file workloads. Isilon hybrid storage is available in 3 product lines:

- **Dell EMC Isilon H400:** This hybrid scale-out NAS platform provides a balance of performance, capacity and value to support a wide range of file workloads. The Isilon H400 delivers up to 3 GB/s bandwidth per chassis and provides capacity options ranging from 120 TB to 480 TB per chassis.
- **Dell EMC Isilon H500:** This versatile hybrid platform delivers 5 GB/s bandwidth per chassis with a capacity ranging from 120 TB to 480 TB per chassis. The Isilon H500 is an ideal choice for customers needing to support a broad range of enterprise workloads and file use cases.
- **Dell EMC Isilon H600:** Designed to provide high performance at value, the Isilon H600 hybrid scale-out NAS platform delivers up to 120,000 IOPS and 12 GB/s bandwidth per chassis. The Isilon H600 is an ideal choice for high performance computing (HPC) applications and workloads that don't require the extreme performance of the Isilon F800 all-flash storage system.

All Isilon hybrid storage platforms are powered by the Isilon OneFS operating system and use a dense, modular architecture to provide a powerful, yet simple scale-out storage platform to speed access to unstructured data, while reducing cost and complexity. Isilon hybrid storage systems integrate easily with Isilon all-flash and Isilon archive systems as well existing Isilon clusters.

**Efficiency:** Isilon scale-out storage delivers over 80 percent storage utilization versus about 50 percent for traditional platforms. Isilon SmartDedupe data deduplication software enhances storage efficiency to reduce your physical storage requirements. Isilon's policy-based, automated tiering options, including Isilon SmartPools and CloudPools software, allow you to optimize storage resources and further lower costs.

**Flexibility:** Isilon storage solutions supports all major protocols and data access methods including NFS, SMB, HDFS, HTTP, and FTP. This means that you can support a wide range of applications and workloads on a single Isilon platform.

**Data protection:** Isilon 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 a broad range of security options including role-based access control (RBAC), secure access zones, SEC 17a-4 compliant WORM data immutability, and file system auditing. .

## ISILON H400 SPECIFICATIONS

ISILON H400 ATTRIBUTES & OPTIONS	2 TB HDD	4 TB HDD	8 TB HDD
CHASSIS CAPACITY	120 TB	240 TB	480 TB
HDD DRIVES (3.5" 4kn SATA) PER CHASSIS	60	60	60
NUMBER OF NODES PER CHASSIS	4	4	4
CPU TYPE (PER NODE)	Intel® Xeon® Processor D-1527		
ECC MEMORY (PER NODE)	64 GB	64 GB	64 GB
CACHE (PER NODE) SOLID STATE DRIVES (800 GB, 1.6 TB, or 3.2 TB)	1 or 2	1 or 2	1 or 2
FRONT-END NETWORKING (PER NODE)	2 x 10GE (SFP+)		
INFRASTRUCTURE NETWORKING (PER NODE)	2 InfiniBand connections supporting QDR links or 2 X 10 GbE (SFP+)		
TYPICAL POWER CONSUMPTION @ 240V (PER CHASSIS)	1120 Watts (@25°C)		
MAXIMUM POWER CONSUMPTION @ 240V (PER CHASSIS)	1560 Watts		
TYPICAL THERMAL RATING	3800 BTU/hr		

## ISILON H500 SPECIFICATIONS

ISILON H500 ATTRIBUTES & OPTIONS	2 TB HDD	4 TB HDD	8 TB HDD
CHASSIS CAPACITY	120 TB	240 TB	480 TB
HDD DRIVES (3.5" 4kn SATA) PER CHASSIS	60	60	60
NUMBER OF NODES PER CHASSIS	4	4	4
CPU TYPE (PER NODE)	Intel® Xeon® Processor E5-2630 v4		
ECC MEMORY (PER NODE)	128 GB	128 GB	128 GB
CACHE (PER NODE) SOLID STATE DRIVES (1.6 TB, or 3.2 TB)	1 or 2	1 or 2	1 or 2
FRONT-END NETWORKING (PER NODE)	2 x 10GE (SFP+ or twin-ax copper) or 2 x 40GbE (QSFP+)		
INFRASTRUCTURE NETWORKING (PER NODE)	2 InfiniBand connections supporting QDR links or 2 X 40GbE (QSFP+)		
TYPICAL POWER CONSUMPTION @ 240V (PER CHASSIS)	1330 Watts (@25°C)		
MAXIMUM POWER CONSUMPTION @ 240V (PER CHASSIS)	1910 Watts		
TYPICAL THERMAL RATING	4,540 BTU/hr		

## ISILON H600 SPECIFICATIONS

ISILON H600 ATTRIBUTES & OPTIONS	600 GB SAS	1.2 TB SAS
CHASSIS CAPACITY	72 TB	144 TB
SAS DRIVES (2.5" 512n) PER CHASSIS	120	120
NUMBER OF NODES PER CHASSIS	4	4
CPU TYPE (PER NODE)	Intel® Xeon® Processor E5-2680 v4	
ECC MEMORY (PER NODE)	256 GB	256 GB
CACHE (PER NODE) SOLID STATE DRIVES (1.6 TB, or 3.2 TB)	1 or 2	1 or 2
FRONT-END NETWORKING (PER NODE)	2 x 10GE (SFP+ or twin-ax copper) or 2 x 40GbE (QSFP+)	
INFRASTRUCTURE NETWORKING (PER NODE)	2 InfiniBand connections supporting QDR links or 2 X 40GbE (QSFP+)	
TYPICAL POWER CONSUMPTION @ 240V (PER CHASSIS)	1700 Watts (@25°C)	
MAXIMUM POWER CONSUMPTION @ 240V (PER CHASSIS)	1990 Watts	
TYPICAL THERMAL RATING	5840 BTU/hr	

CLUSTER ATTRIBUTES	ISILON H400	ISILON H500	ISILON H600
NUMBER OF CHASSIS	1 to 36	1 to 36	1 to 36
NUMBER OF NODES	4 to 144	4 to 144	4 to 144
CLUSTER CAPACITY	120 TB to 17.2 PB	120 TB to 17.2 PB	72 TB to 5.1 PB
RACK UNITS	4 to 144	4 to 144	4 to 144

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## PRODUCT ATTRIBUTES

<b>SCALE-OUT ARCHITECTURE</b>	Distributed, fully symmetric clustered architecture that combines modular storage with Isilon intelligent software
<b>MODULAR DESIGN</b>	4 self-contained nodes include compute assembly and storage media in a 4U rack-mountable chassis. Integrates easily into existing Isilon clusters
<b>OPERATING SYSTEM</b>	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
<b>HIGH AVAILABILITY</b>	No single point of failure; self-healing design protects against disk or node failure; includes back-end intra-cluster failover
<b>SCALABILITY</b>	Scales from 4 to 144 nodes in a single cluster. Add an additional chassis to scale performance and capacity in about a minute.
<b>DATA PROTECTION</b>	FlexProtect™ file-level striping with support for N+1 through N+4 and mirroring data protection schemes
<b>DATA REPLICATION</b>	SyncIQ® fast and flexible file-based asynchronous replication
<b>DATA RETENTION</b>	SmartLock® policy-based retention and protection against accidental deletion
<b>SECURITY</b>	File system audit capability to improve security and control of your storage infrastructure and address regulatory compliance requirements
<b>EFFICIENCY</b>	SmartDedupe data deduplication option, which can reduce storage requirements by up to 35 percent
<b>AUTOMATED STORAGE TIERING</b>	Policy-based automated tiering options, including Isilon SmartPools and CloudPools software, to optimize storage resources and lower costs
<b>NETWORK PROTOCOL SUPPORT</b>	NFSv3, NFSv4, NFS Kerberized sessions (UDP or TCP), SMB1 (CIFS), SMB2, SMB3, SMB3-CA, Multichannel, HTTP, FTP, NDMP, SNMP, LDAP, HDFS, ADS, NIS reads/writes

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## ENVIRONMENTAL SPECIFICATIONS

<b>POWER SUPPLY</b>	Isilon H400 and Isilon H500: Dual-redundant, hot-swappable 1050W (low line) 1100W (high line) power supplies with power factor correction (PFC); rated for input voltages 90 - 130 VAC (low line) and 180-264 VAC (high line)  Isilon H600: Dual-redundant, hot-swappable 1450W power supplies with power factor correction (PFC); rated for input voltage 180 – 265 VAC (optional rack mount step-up transformer for 90-130 VAC input regions)
<b>OPERATING ENVIRONMENT</b>	Compliant with ASHRAE A3 data center environment guidelines
<b>DIMENSIONS/WEIGHT</b>	Isilon H400: Height: 7" (17.8 cm); Width: 17.6" (44.7 cm); Depth: 35" (88.9 cm); Weight: 245 lbs. (111.1 kg)  Isilon H500: Height: 7" (17.8 cm); Width: 17.6" (44.7 cm); Depth: 35" (88.9 cm); Weight: 250 lbs. (113.4 kg)  Isilon H600: Height: 7" (17.8 cm); Width: 17.6" (44.7 cm); Depth: 35" (88.9 cm); Weight: 215 lbs. (97.5 kg)
<b>MINIMUM SERVICE CLEARANCES</b>	Front: 40" (88.9 cm), rear: 42" (106.7 cm)

## 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

Contact your Dell EMC sales representative or authorized reseller to learn more about how Isilon hybrid scale-out NAS storage solutions can benefit your organization.

[Shop Dell EMC Isilon](#) to compare features and get more information.

