



Isilon F800

ISILON ALL-FLASH SCALE-OUT NAS STORAGE

Dell EMC Isilon F800 all-flash scale-out NAS storage, powered by the Isilon OneFS operating system, uses a revolutionary modular architecture to provide a powerful, yet simple scale-out storage platform to speed access to massive amounts of unstructured data, while dramatically reducing cost and complexity. With a highly dense design that contains 4 nodes within a single 4U chassis, Isilon F800 delivers extreme performance and efficiency for your most demanding unstructured data applications and workloads.

Performance: Isilon F800 all-flash delivers up to 250,000 IOPS and 15 GB/sec aggregate throughput in a single chassis configuration. With Isilon F800, you can scale performance up to 9M IOPS and 540 GB/s of aggregate throughput in a single Isilon cluster. You also have a choice of dual 10 GbE or dual 40 GbE front-end networking ports. For backend networking, you can choose from high-performance InfiniBand QDR or 40 GbE networking.

Capacity¹: Isilon F800 all-flash provides massive scalability and allows you to scale storage capacity from 96 TB to 924 TB in a single 4U chassis and up to 33 PB in a single Isilon cluster. Each Isilon F800 chassis houses 60 SSDs with a capacity choice of 1.6 TB, 3.2 TB, 3.84 TB, 7.68 TB or 15.4 TB per drive.

Efficiency: Isilon scale-out storage delivers up to 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.

Simplicity: You can install, configure, and have an Isilon F800 all-flash cluster online in less than 10 minutes. It's also simple to add Isilon F800 to an existing Isilon cluster. When needed, you can add an additional Isilon F800 chassis to scale performance and capacity in about a minute.

Flexibility: Powered by the OneFS operating system, Isilon F800 all-flash supports all major protocols and data access methods including NFS, SMB, HDFS, HTTP, FTP, and OpenStack Swift. This means that you can support a wide range of unstructured data applications and workloads on a single platform.

Data protection: Isilon F800 all-flash 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 F800 all-flash offers a broad range of robust security options including FIPS 140-2 level 2 self-encrypting drives, role-based access control (RBAC), secure access zones, SEC 17a-4 compliant WORM data immutability, and integrated file system auditing support.

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

ISILON F800 ALL-FLASH SPECIFICATIONS

ISILON F800 ALL-FLASH CHASSIS ATTRIBUTES & OPTIONS	1.6 TB SSD	3.2 TB SSD	3.84 TB SSD	7.68 TB SSD	15.5 TB SSD
CHASSIS CAPACITY ¹	96 TB	192 TB	230 TB	460 TB	924 TB
SSD DRIVES (2.5") PER CHASSIS	60	60	60	60	60
SELF-ENCRYPTING DRIVE (SED SSD) OPTION	Yes	Yes	No	No	No
OPERATING SYSTEM	Isilon OneFS 8.1 or later except for self-encrypting drive options which require Isilon OneFS 8.1.0.1 or later		Isilon OneFS 8.1 or later		
NUMBER OF NODES PER CHASSIS	4	4	4	4	4
CPU TYPE (PER NODE)	Intel® Xeon® Processor E5-2697A v4				
ECC MEMORY (PER NODE)	256 GB				
FRONT-END NETWORKING (PER NODE)	2 x 10GbE (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)	1300 Watts (@25°C)				
MAXIMUM POWER CONSUMPTION @ 240V (PER CHASSIS)	1800 Watts				
TYPICAL THERMAL RATING	4,440 BTU/hr				

CLUSTER ATTRIBUTES	ISILON F800 ALL-FLASH
NUMBER OF CHASSIS	1 to 36
NUMBER OF NODES	4 to 144
CLUSTER CAPACITY ¹	96 TB to 33 PB
RACK UNITS	4 to 144

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PRODUCT ATTRIBUTES

SCALE-OUT ARCHITECTURE	Distributed, fully symmetric clustered architecture that combines modular storage with Isilon intelligent software
MODULAR DESIGN	4 self-contained nodes include server, software, and SSDs in a 4U rack-mountable chassis; integrates easily into existing Isilon clusters
OPERATING SYSTEM	Eighth generation of 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 4 to 144 nodes in a single cluster with up to 33 PB capacity and 540 GB/s concurrent throughput; add an additional chassis to scale performance and capacity in about a minute.
DATA PROTECTION	Isilon FlexProtect file-level striping with support for N+1 through N+4 and mirroring data protection schemes
DATA REPLICATION	Isilon SyncIQ fast and flexible file-based asynchronous replication
DATA RETENTION	Isilon SmartLock policy-based retention and protection against accidental deletion
SECURITY	File system audit capability to improve security and control of your storage infrastructure and address regulatory compliance requirements
EFFICIENCY	Isilon SmartDedupe data deduplication option, which can reduce storage requirements by up to 35 percent
AUTOMATED STORAGE TIERING	Policy-based automated tiering options, including Isilon SmartPools and CloudPools software, to optimize storage resources and lower costs
NETWORK PROTOCOL SUPPORT	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

ENVIRONMENTAL SPECIFICATIONS

POWER SUPPLY	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)
OPERATING ENVIRONMENT	Compliant with ASHRAE A3 data center environment guidelines
DIMENSIONS/WEIGHT	Height: 7" (17.8 cm); Width: 17.6" (44.8 cm); Depth (front NEMA rail to rear 2.5" SSD cover ejector): 35.8" (91.0 cm); Depth (front of bezel to rear 2.5" SSD cover ejector): 37.6" (95.5 cm) Weight: 170 lbs. (77.1 kg)
MINIMUM SERVICE CLEARANCES	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

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