

Data Sheet

ETERNUS DX8900 S6

Disk System

Flash-optimized data center storage

ETERNUS DX - Business-centric Storage

ETERNUS DX series are the ideal hybrid storage for on-premise storage of business-critical data in data centers, branch offices and self-operated IT of SMBs, something every business can afford, with integrated and powerful features for business growth, efficiency and continuity. Latest capacity and performance optimization capabilities contribute to overall business efficiency, outstanding data-safe technologies and all-inclusive encryption guarantee uncompromised business continuity.

ETERNUS DX8900 S6

ETERNUS DX8900 S6 is the purpose built platform to consolidate storage in data centers. Based on a multiple redundant, scale-out architecture it provides modular scalability, leading performance headroom and relentless business continuity capabilities. Latest data reduction technologies and fully automated quality-of-service functions make ETERNUS DX8900 S6 ideal for the data management of business critical core applications as well as of large and fast growing amounts of unstructured data. Various types of disk and flash drives can be combined flexibly to balance capacity, data access speed and cost for specific business needs. Designed to host up to 91 PB of flash capacity the system paves the way to the full flash data center.



Features & Benefits

Main Features	Benefits
Flexible scalability in capacity and performance	<ul style="list-style-type: none">■ Future-proof scale-out architecture and upgrade options meet current and future business requirements. The flexible combination of different flash and hard disk technologies enables support for different workloads. NVMe in the backend increases performance to meet extreme performance demands. The perfect system for data center storage consolidation.
Relentless Business continuity	<ul style="list-style-type: none">■ Avoid planned or unplanned downtimes with replication and Storage Cluster. Transparent failover allows 100% data insurance and non-stop operations, as well as a system availability of up to 99.9999%. Intelligent snapshot functionality supports secure backups.
Automated Management of Data Service Levels	<ul style="list-style-type: none">■ Control application priorities according to business needs, minimize admin efforts, automate monitoring and adjustment to guarantee service levels and compress data without performance impact.
Transition to a Full Flash Data Center	<ul style="list-style-type: none">■ Automated Storage Tiering, including for all-flash configuration (multi-flash tiering), optimized data center storage system with complete management compatibility using ETERNUS SF software.

Technical details

General system information

	Frontend Enclosure
No. of controllers	2 - 16
No. of host interfaces	4-256 ports [FC(64Gbit/s, 32Gbit/s, 16Gbit/s)] 4-128 ports [iSCSI(10Gbit/s)]
Maximum System Memory	16 TB
Extreme Cache Pool	204.8 TB
Maximum Disk Drives	3,072
Max. no. of drive enclosures	120
Supported RAID levels	0, 1, 1+0, 5, 5+0, 6
Host Interfaces	Fibre Channel (64 Gbit/s, 32 Gbit/s, 16 Gbit/s) iSCSI (10Gbit/s [10GBASE-SR], [10GBASE-CR])
Mixed host interfaces	Yes
Max. no. of hosts	8,192
Maximum Storage Capacity HDD	26 PB
Maximum Storage Capacity SSD	91 PB
Drive Type	2.5-inch, NVMe SSD (15.36TB / 7.68TB / 3.84TB / 3.2TB / 1.92TB) 2.5-inch, NVMe SSD (self-encrypting) (15.36TB / 7.68TB / 3.84TB / 3.2TB / 1.92TB) 2.5-inch, SAS SSD (30.72TB / 15.36TB / 7.68TB / 3.84TB / 1.92TB) 2.5-inch, SAS SSD (self-encrypting) (7.68TB / 3.84TB / 1.92 TB) 2.5-inch, SAS, 10,000 rpm (2.4TB / 1.2TB) 2.5-inch, SAS (self-encrypting), 10,000rpm (1.2TB) 3.5-inch, Nearline SAS, 7,200rpm (18TB / 12TB / 8TB / 4TB) 3.5-inch, Nearline SAS (self-encrypting), 7,200rpm (16TB / 8TB)
Note	NVMe SSDs (3.2 TB) can be used as drives for configuring Extreme Cache Pools.
Max. no. of SSDs	unlimited
Mixed 2.5 inch/ 3.5 inch drive enclosures	Yes
Drive interface	NVMe (16 Gbit/s); SAS (12 Gbit/s)
Back-end disk connectivity	Max. 4 pairs of four-lane x12 Gbit/s Serial Attached SCSI buses (SAS 3.0 wide) Max. 4 pairs of four-lane x16 Gbit/s PCI-express buses (PCIe 4.0 wide)
Max. no. of RAID groups per system	1,536
Max. no. of LUNs per RAID group	65,535
Max. no. of LUNs	65,535
Max. LUN capacity	128 TB
No. of snapshots - max.	32,768
Max. no. of copy generations	512
Compression	Yes
Compatibility note	If and to the extent a list of components or certain compatibilities are specified in the product data sheet, these component lists and compatibility specifications are exhaustive. Using deviating or other system components and applications together with the product may but does not necessarily have to lead to compatibility problems. A final statement and/or commitment on the compatibility of such deviating or other system components and applications can only be provided after a corresponding verification through a dedicated compatibility testing.

Performance

Latency	Less than 1ms
Sequential access performance	196,000 MB/s (128KB Read), 72,000 MB/s (128KB Write)
Random access performance	3,500,000 IOPS (8KB Read), 2,200,000 IOPS (8KB Write)
Note	To the extent that specific performance specifications for the product are indicated in the product data sheet, these are usually also dependent on the specific use and workload of the product and may therefore not be reached equally in all application situations. Such performance specifications thus do not represent a specifically agreed characteristic or feature of the product, but only serves as an orientation. The responsibility for a sufficient sizing of the overall system functionality lies solely with the user.

Performance management

Automated Storage Tiering	Yes
Quality of Service	Yes
Automated QoS	Yes
Wide striping	Yes
Operation Management Client	Google Chrome 124, Microsoft Edge® 124
Note	Automation options can be activated via ETERNUS SF Software. Use of browser software is subject to proactive acceptance of the respective License Agreements/ EULAs of the Software manufacturer as applicable for the relevant Software whether preinstalled or optional.

Continuity management

Storage Cluster	Yes
Remote Copy functionality	Synchronous and asynchronous
Note	Options can be activated via ETERNUS SF Software
Note	The product may in connection with and depending on the specific configuration include elements to support time- and performance-critical applications, however high availability (e.g., 99.9999%) and failsafe performance is not a standalone product feature. If and to the extent the product is to be used in such business-critical environments, it is within the sole responsibility of the user to set up the specific additional technical features (e.g., Storage Cluster), redundancies, and operational conditions as required to ensure such high availability or failsafe performance.

Information security management

Data confidentiality	HTTPS (SSL), SSH, CHAP, Bidirectional CHAP, RADIUS, Self-Encrypting Disk, Controller based Encryption
Data integrity	Data Block Guard, Data Encryption, Cache Protection, Disk Drive Patrol, Global Hot Spare, Dedicated Hot Spare, Copy back less, Drive shield, Fast Recovery
Note	The properties of the product provide a baseline for product security and therefore end-customer IT security. However, these properties are not sufficient on their own to protect the product from all existing threats, such as intrusion attempts, data exfiltration and other forms of cyberattacks. To customize security settings, please use the configuration options as available for the respective product. During operation, the IT security of this product is within the responsibility of the respective administrator/end-user of the product. Please note, that Fsas Technologies Inc. as a manufacturer does not make any policy prescriptions or advocacy statements regarding IT security best practices and/or general product operation.

Availability management

Non-disruptive firmware upgrade	Yes
Hot part replacement	Yes

Capacity management

Thin Provisioning	Yes
RAID migration	Yes
LUN online expansion w/o interruption	Yes
Reporting function	Yes
Hot part expansion	Yes
Non-disruptive firmware upgrade	Yes

Management

Supported protocols	SNMP (version1, 2C, 3), SMI-S 1.6
Administration	Web-based graphical user interface, CLI (Command Line Interface), ETERNUS SF
Remote Support	Event notification (E-mail / SNMP / Syslog), Remote maintenance

Supported OS for ETERNUS SF

Operation Management Server	Microsoft® Windows Server® 2022 Microsoft® Windows Server® 2019 Microsoft® Windows Server® 2016 Solaris® 11 (11/11 or later) Solaris® 10 Red Hat® Enterprise Linux® 9 Red Hat® Enterprise Linux® 8 Red Hat® Enterprise Linux® 7 Oracle Linux 9 Oracle Linux 8 Oracle Linux 6 VMware® vSphere® 7.0, 8.0 Microsoft® Windows Server® 2022 Hyper-V Microsoft Windows Server 2019 Hyper-V Microsoft Windows Server 2016 Hyper-V
Operation Management Client	Google Chrome 99 Microsoft Edge® 99 Chrome® 47, 50 (Android®) Safari 8, 9 (iOS)
Note	See the ETERNUS SF datasheet for further options. Use of certified or supported operating systems and virtualization software is subject to proactive acceptance of the respective License Agreements/ EULAs/ Subscription and support terms of the Software manufacturer as applicable for the relevant Software whether preinstalled or optional. The software may only be available bundled with a software support subscription which – depending on the Software - may be subject to separate remuneration.

Supported configurations

All major host operating systems, servers and business applications
Detailed support matrix:
www.fujitsu.com/global/support/products/computing/storage/disk/supported-configurations

Installation specification

19" rackmount	Yes				
Service Area	Front: 850 mm (33.5 inch) or more Rear: 850 mm (33.5 inch) or more				
Power voltage	AC 200 - 240 V				
Power frequency	50 / 60 Hz				
Power supply efficiency	94 % (80 PLUS platinum)				
Maximum Power Consumption	AC 200 - 240 V: 66,318W (67584VA)				
Power phase	Single				
	Frontend Enclosure	Controller Enclosure	2.5-inch SAS Drive Enclosure	3.5-inch SAS Drive Enclosure	2.5-inch NVMe Drive Enclosure
Dimensions (W x D x H)	482 x 805 x 217 mm 19 x 31.7 x 8.5 inch 5 U	481 x 785 x 132 mm 18.9 x 30.9 x 5.2 inch 3 U	482 x 540 x 88 mm 19 x 21.3 x 3.5 inch 2 U	482 x 560 x 88 mm 19 x 22 x 3.5 inch 2 U	482 x 546 x 88 mm 19 x 21.5 x 3.5 inch 2 U
Weight	58 kg (128 lb)	55 kg (121 lb)	35 kg (77 lb)	35 kg (77 lb)	33 kg (73 lb)
Maximum Power Consumption	630W (680VA)	1,761W (1,763VA)	430W (440VA)	340W (350VA)	570W (580VA)

Environment

Maximum Heat Generation	AC 200 - 240 V: 244,990 kJ/h: kJ/h
Temperature (operating)	10 - 35 °C
Humidity (operating)	20 - 80 % (relative humidity)
Operating environment	Site Planning Guide
Operating environment link	http://docs.ts.fujitsu.com/dl.aspx?id=d4cf793f-c549-494f-85a7-e381f1be138e

Compliance

Product safety	UL 62368-1, CSA 62368-1, EN 62368-1, IEC 62368-1, CNS15598-1
Electromagnetic Compatibility	FCC Part-15 Class A, ICES-003 Class A, EN55032, VCCI Class A, AS/NZS CISPR 32 class A, CNS 15936, Class A, KN32
Electromagnetic Immunity	EN 55035
CE certification	2014/35/EU , Low Voltage Directive, 2014/30/EU , Electromagnetic Compatibility Directive, 2011/65/EU,(EU)2015/863 as amended, Restriction of Hazardous Substances (RoHS) Directive

Compliance

Environmental compliance	RoHS-compliant (Restriction of hazardous substances), WEEE (Waste electrical and electronic equipment)
Compliance notes	There is general compliance with the safety/EMC requirements of all European countries and North America. National approvals required in order to satisfy statutory regulations or for other reasons can be applied for on request.
Compliance link	https://sp.ts.fujitsu.com/sites/certificates
Manufacturer	Fsas Technologies Inc. 13-2, Nakamaruko, Nakahara-ku, Kawasaki-shi, Kanagawa, 211-0012, Japan

Warranty

Manufacturer warranty period	3 years
Warranty type	Onsite warranty
Warranty Terms & Conditions	www.fujitsu.com/warranty
Product Support - the perfect extension	
Support Pack Options	Available in major metropolitan areas: 9x5, Next Business Day Onsite Response Time 9x5, 4h Onsite Response Time (depending on country) 24x7, 4h Onsite Response Time (depending on country)
Recommended Service	24x7, Onsite Response Time: 4h
Service Lifecycle	at least 5 years after shipment, for details see https://support.ts.fujitsu.com/
Service Weblink	www.fujitsu.com/services/product-services

Fujitsu products, solutions & services

In addition to ETERNUS DX8900 S6, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

Fujitsu Portfolio

Built on industry standards, Fujitsu offers a full portfolio of IT hardware and software products, services, solutions and cloud offering, ranging from clients to datacenter solutions and includes the broad stack of Business Solutions, as well as the full stack of Cloud offerings. This allows customers to select from alternative sourcing and delivery models to increase their business agility and to improve their IT operation's reliability.

Computing Products

www.fujitsu.com/global/products/

Software

www.fujitsu.com/software/

More information

Learn more about ETERNUS DX8900 S6, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website. www.fujitsu.com/global/products/computing/storage/disk/eternus-dx/dx8900-s6/

Fujitsu green policy innovation

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Using our global know-how, we aim to contribute to the creation of a sustainable environment for future generations through IT.

Please find further information at <http://www.fujitsu.com/global/about/environment>



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Disclaimer

Please note that the data sheet reflects the technical specification with the maximum selection of components for the named system and not the detailed scope of delivery. The scope of delivery is defined by the selection of components at the time of ordering. The product was developed for normal business use.

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