Data Sheet
Fujitsu Storage ETERNUS DX900 S5 Disk System

Enterprise-grade, midrange hybrid storage system

ETERNUS DX - Business-centric Storage

FUJITSU 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 DX900 S5

Fujitsu Storage ETERNUS DX900 S5 is an Enterprise-grade, midrange hybrid storage system that offers modular scalability, leading performance headroom and relentless business continuity capabilities. Latest data reduction technologies and fully automated quality-of-service functions make ETERNUS DX900 S5 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.



Features & Benefits

Main Features	Benefits
Flexible scalability in capacity and performance	■ Future-proof scale-out architecture and upgrade options meet current and future business requirements. Flexible combination of flash and disk media allow for different workloads of deployments and NVMe cache provides highest performance. The perfect system for data center storage consolidation.
Relentless Business continuity	■ Avoid planned or unplanned downtimes with replication and Storage Cluster. High redundancies enable business critical computing, data processing and real time data mirroring at the highest level and a system availability of up to 99.9999%. Intelligent snapshot functionality supports secure backups.
Automated Management of Data Service Levels	■ 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	■ Flash-optimized data center storage system with complete management compatibility using ETERNUS SF software

Technical details

General system information

	ETERNUS DX900 S5
No. of controllers	2 / 4
No. of host interfaces	4-64 ports [FC(32Gbit/s,16Gbit/s)], 4-32 ports [iSCSI(10Gbit/s,1Gbit/s)]
Maximum System Memory	1,536 GB
Extreme Cache	51.2 TB
Maximum Disk Drives	2,304
Max. no. of drive enclosures	94
Note	94 with 2.5" or 3.5" DE, 32 with HD-DE or mixture of DEs up to Max. no. Drives
Supported RAID levels	0, 1, 1+0, 5, 5+0, 6
Host Interfaces	Fibre Channel (16 Gbit/s, 32Gbit/s) iSCSI (10Gbit/s [10GBASE-SR, 10GBASE-CR]) iSCSI (1 Gbit/s)
Mixed host interfaces	Yes
Max. no. of hosts	8,192
Maximum Storage Capacity HDD	40,723 TB
Maximum Storage Capacity SSD	70,778 TB
Drive Type	2.5-inch, SAS, 15,000 rpm (900 GB* / 600 GB* / 300 GB*) 2.5-inch, SAS, 10,000 rpm (2.4TB / 1.8TB / 1.2TB / 600GB) 2.5-inch, SAS (FIPS), 10,000rpm (1.2TB) 2.5-inch, SSD (30.72TB / 15.36TB / 7.68TB / 3.84TB / 1.92TB / 960GB) 2.5-inch, SSD (FIPS) (7.68TB / 3.84TB / 1.92TB) 3.5-inch, Nearline SAS, 7,200rpm (18TB / 16TB / 14TB / 12TB / 10TB / 8TB / 6TB / 4TB) 3.5-inch, Nearline SAS (FIPS), 7,200rpm (16TB / 12TB / 8TB / 4TB) HDDE, Nearline SAS, 7,200rpm (18TB / 16TB / 14TB / 12 TB / 8TB / 4TB) HDDE, Nearline SAS (FIPS), 7,200rpm (16TB / 12 TB / 8TB / 4TB)
Note	*For EMEIA only available on special request HDDE not available in EMEIA region
Max. no. of SSDs	unlimited
Mixed 2.5 inch/ 3.5 inch drive enclosures	Yes
Drive interface	Serial Attached SCSI (12 Gbit/s)
Back-end disk connectivity	4 pair of four-lane x 12 Gbits Serial Attached SCSI buses (SAS3.0 wide) / Controller Enclosure
Max. no. of RAID groups per system	528
Max. no. of LUNs per RAID group	128
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	140µsec (Read), 60µsec (Write)
Sequential access performance	44,000 MB/s (128KB Read) 22,000 MB/s (128KB Write)
Random access performance	1,800,000 IOPS (8KB Read) 870,000 IOPS (8KB Write)

Performance	
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
Operation Management Client	Google Chrome 99, Microsoft Edge® 99, Chrome® 47, 50 (Android®), Safari 8, 9 (iOS)
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	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
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 Fujitsu 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
Reporting function	Yes
Hot part expansion	Yes
Non-disruptive firmware upgrade	Yes
Management	
Administration	Web-based graphical user interface, CLI (Command Line Interface), ETERNUS SF

Supported OS for ETERNUS SF	
Operation Management Server	Microsoft® Windows Server® 2022 Microsoft® Windows Server® 2019 Microsoft® Windows Server® 2016 Microsoft Windows Server 2012, 2012 R2 Solaris® 11 (11/11 or later) Solaris® 10 (except ETERNUS SF Express) Red Hat® Enterprise Linux® 9 Red Hat Enterprise Linux 8 Red Hat® Enterprise Linux® 7 Red Hat® Enterprise Linux® 6 Oracle Linux 6 VMware® vSphere® 6.0, 6.5, 6.7, 7.0, 8.0 Microsoft® Windows Server® 2022 Hyper-V Microsoft Windows Server 2019 Hyper-V Microsoft Windows Server 2016 Hyper-V Microsoft Windows Server 2012 Hyper-V, 2012 R2 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-configrations

Installation specification					
19″ rackmount	Yes				
Power voltage	AC 200 - 240 V				
Power frequency	50 / 60 Hz				
Power supply efficiency	92 % (80 PLUS Gold)				
Maximum Power Consumption	AC 200 - 240 V: 57,680W (58,910VA)				
Power phase	Single				
	ETERNUS DX900 S5	Controller Enclosure	2.5-inch Drive Enclosure	3.5-inch Drive Enclosure	High-Density Drive Enclosure
Dimensions (W x D x H)	482 x 816 x 218 mm 19 x 32.1 x 8.6 inch 5 U	482 x 788 x 133 mm 19 x 31 x 5.2 inch 3 U	482 x 540 x 88 mm 19 x 21.3 x 3.5 inch 2 U	482 x 580 x 88 mm 19 x 22.8 x 3.5 inch 2 U	482 x 980 x 176 mm 19 x 38.6 x 6.9 inch 4 U
Weight	64 kg (141 lb)	58 kg (128 lb)	35 kg (77 lb)	35 kg (77 lb)	100 kg (220 lb)

Environment	
Maximum Heat Generation	AC 200 - 240 V: 213,310: kJ/h
Temperature (operating)	10 - 35 °C
Humidity (operating)	20 - 80 %
Operating environment	FTS 04230 – Guideline for Data Center (installation specification)
Operating environment link	http://docs.ts.fujitsu.com/dl.aspx?id=589915e9-1bf8-40f7-8ba4-7cac9371f2f0

Compliance	
Product	ETERNUS DX900 S5, ET DX5/600/900 S5 2.5DE, ET DX5/600/900 S5 3.5DE, ET DX HD-DE
Model	ET89S4CE, ET89S4FE, DE-25,DE-35, HD-DE
Product safety	EN 62368-1, IEC 62368-1, ANSI/UL 62368-1, 2nd Ed, CAN/CSA C22.2 No. 62368-1-14, CNS 14336-1, TP TC 004
Electromagnetic Compatibility	EN 55032 Class A, EN 61000-3-2, EN 61000-3-3, FCC Part-15 Subpart B Class A, ICES-003 Class A, VCCI Class A, JIS C 61000-3-2, CNS 13438, AS/NZS CISPR 32 class A, TP TC 020, KN32 Class A, KN35
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	REACH (substance regulations in articles), WEEE (Waste electrical and electronical 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

Warranty	
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

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Fujitsu Portfolio
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Computing Products
www.fujitsu.com/global/products/computing/

Software
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More information

Learn more about Fujitsu ETERNUS DX900 S5, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
www.fujitsu.com/global/products/computing/storage/disk/eternus-dx/dx900-s5/

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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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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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