FUJITSU

Data Sheet
FUJITSU Storage ETERNUS DX8900 S4 Disk System

Flash-optimized data center storage

ETERNUS DX - Business-centric Storage

FUJITSU Storage ETERNUS DX S4 is the perfect hybrid storage for SMB, something every business can afford, with integrated and powerful features for business growth, efficiency and continuity. Latest capacity and performance optimization capabilities contribute to comprehensive business efficiency. Outstanding data-safe technologies and all-inclusive encryption guarantee uncompromised business continuity

ETERNUS DX8900 S4

Fujitsu Storage ETERNUS DX8900 S4 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 S4 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 140 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	■ Future-proof scale-out architecture and upgrade options meet current and future business requirements ■ Flexible combination of flash and disk media for different workloads of deployments ■ Data center storage consolidation ■ Superior performance by design ■ Turbocharge performance via NVMe cache
Relentless Business continuity	■ Replication and Storage Cluster to avoid planned or unplanned downtimes ■ Transparent failover for 100% data insurance and non-stop operations ■ Intelligent snapshot functionality for backup ■ Non-disruptive migration ■ System availability of 99.9999%
Automated Management of Data Service Levels	■ Manage data service levels by business objective ■ Automation of monitoring and adjustment ■ Guaranteed service levels ■ Data compression without performance impact
Transition to a Full Flash Data Center	■ Flash-optimized data center storage system ■ Complete management compatibility using ETERNUS SF Management software

Models and architecture

Technical details

General system information

	Frontend Enclosure
No. of controllers	2 - 24
No. of host interfaces	384 (FC), 192 (iSCSI)
Maximum System Memory	18,432 GB
Extreme Cache	307.2 TB
Maximum Disk Drives	6,912
Max. no. of drive enclosures	180
Supported RAID levels	0, 1, 1+0, 5, 5+0, 6
Host Interfaces	Fibre Channel (16 Gbit/s, 32Gbit/s) iSCSI (10 Gbit/s, 1 Gbit/s)
Mixed host interfaces	Yes
Max. no. of hosts	8,192
Maximum Storage Capacity	141,558 TB
Maximum Storage Capacity HDD	80,064 TB
Maximum Storage Capacity SSD	141,558 TB
Drive Type	2.5-inch, SAS, 15,000 rpm (900 GB / 600 GB / 300 GB*) 2.5-inch, SAS, 10,000 rpm (2.4 TB/ 1.8 TB / 1.2 TB / 600 GB / 300 GB*) 2.5-inch, SAS (self-encrypting), 10,000rpm (2.4 TB/ 1.2TB) 2.5-inch, SSD (30.72TB / 15.36TB / 7.68TB / 3.84 TB / 1.92 TB / 960GB / 400 GB) 2.5-inch, SSD (self-encrypting) (7.68TB / 3.84 TB/1.92 TB) 2.5-inch, Nearline SAS, 7,200 rpm (2 TB) 3.5-inch, Nearline SAS, 7,200 rpm (12 TB / 8 TB / 6 TB / 4 TB) 3.5-inch, Nearline SAS (self-encrypting), 7,200 rpm (12 TB/ 8 TB/ 4 TB)
Note	2.5-inch drives are available only for 2.5-inch drive enclosures and 3.5-inch drives are available only for 3.5-inch drive enclosures. 2 TB/ 6 TB/ 8 TB/12 TB Nearline SAS and 1.8 TB/ 2.4 TB SAS drives are Advanced Format drives * 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 LUNs	65,535
Max. LUN capacity	128 TB
No. of snapshots - max.	32,768
Max. no. of copy generations	512
Eco-mode	Yes
Compression	for block

Performance

Random access performance	10M IOPS (8KB Random Read Miss)

Performance management

Automated Storage Tiering	Yes
Quality of Service	Yes
Automated QoS	Yes
Wide striping	Yes
Note	Automation options can be activated via ETERNUS SF Software

Continuity management

Storage Cluster	Yes
Remote Copy functionality	Synchronous and asynchronous
Note	Options can be activated via ETERNUS SF Software

Information security management

Data confidentiality	Self-Encrypting Disk, Controller based Encryption, HTTPS (SSL), One Time Password, RADIUS, SSH
Data integrity	Cache Protection, Data Block Guard, Disk Drive Patrol

Availability management

Fast Recovery	Yes
Non-disruptive maintenance	Dedicated Hot Spare, Global Hot Spare
Non-disruptive firmware upgrade	Yes
Redundancy	RAID Controller, Power supply, Fan
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

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® 2019 Microsoft® Windows Server® 2016 Microsoft Windows Server 2012, 2012 R2 Microsoft Windows Server 2008, 2008 R2 Solaris® 11 (11/11 or later) Solaris® 10 (except ETERNUS SF Express) Red Hat® Enterprise Linux® 7 Red Hat® Enterprise Linux® 6 Red Hat® Enterprise Linux® 5 Oracle Linux 6 VMware® vSphere® 6.0, 6.5 VMware® vSphere® 5/ 5.1/ 5.5 Microsoft Windows Server 2016 Hyper-V Microsoft Windows Server 2012 Hyper-V, 2012 R2 Hyper-V Microsoft Windows Server 2008 Hyper-V, 2008 R2 Hyper-V Hyper-V 2.0
Operation Management Client	Internet Explorer® 9, 10, 11 FireFox® ESR 17, 24, 31, 38, 45, 52, 60 Microsoft Edge® 25, 41 Chrome® 60 Safari 8, 9 (iOS) Chrome® 47, 50 (Android®)
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
Service Area	Front: 850 mm (33.5 inch) or more Rear: 850 mm (33.5 inch) or more
Power voltage	AC 200 - 240 V

Installation specification

Power frequency	50 / 60 Hz				
Power supply efficiency	92 % (80 PLUS gold)				
Maximum Power Consumption	168,560 W (171,470 VA)				
Power phase	Single				
	Frontend Enclosure	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 560 x 88 mm 19 x 22 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)
Maximum Power Consumption (AC 200 - 240 V)	560W (590VA)	1,560W (1,580VA)	430W (440VA)	340W (350VA)	1,300W (1,320VA)

Environment

Maximum Heat Generation	AC 200 - 240 V: 614,240: kJ/h				
Temperature (not operating)	0 - 50 ℃				
Humidity (operating)	20 - 80 % (relative humidity, non-condensing)				
Humidity (not operating)	8 - 80 % (relative humidity, non-condensing)				
Altitude	3,000 m (10,000 ft.)				
Sound pressure (LpAm)	60dB(A)				
Noise notes	Measured with single enclosure according to ISO 7779 and declared according to ISO 9296				
Operating environment	Site Planning Guide				
Operating environment link	http://docs.ts.fujitsu.com/dl.aspx?id=d4cf793f-c549-494f-85a7-e381f1be138e				
Type	Frontend Enclosure	Controller Enclosure	2.5-inch Drive Enclosure	3.5-inch Drive Enclosure	High-Density Drive Enclosure
Maximum Heat Generation (AC 200 - 240 V)	2,020 kJ/h	5,620 kJ/h	1,600 kJ/h	1,300 kJ/h	4,700 kJ/h

Compliance

Product safety	UL 60950-1, CSA 60950-1, EN 60950-1, IEC 60950-1
Electromagnetic Compatibility	CNS 13438, FCC Part-15 Subpart B Class A, ICES 003 Class A, EN55032, VCCI Class A, AS/NZS CISPR 32 class A
Electromagnetic Immunity	EN 55024
CE certification	2014/30/EU, 2014/35/EU, 2011/65/EU
Approvals	CB, CE, C-Tick, FCC, EAC, GS, VCCI
Environmental compliance	RoHS compliant, WEEE compliant
Compliance notes	There is general compliance with the safety 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/support

Product Related Services - the perfect extension

Support Pack Options	Available in major business 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	5 years after end of product life
Service Weblink	www.fujitsu.com/services/product-services

Fujitsu products, solutions & services

In addition to FUJITSU ETERNUS DX8900 S4, 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/computing/

Software

www.fujitsu.com/software/

More information

Learn more about Fujitsu ETERNUS DX8900 S4, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
www.fujitsu.com/eternus

Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment.
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