FUJITSU

Data Sheet
Fujitsu ETERNUS DX100 S3
Disk Storage System

The all-in-one storage system for SMBs or subsidiaries

ETERNUS DX - Business-centric Storage

Combining leading performance architecture with automated quality of service management the Fujitsu Storage ETERNUS DX series aligns storage resources with business priorities, thus enabling higher system utilization and delivering increased system consolidation capabilities and a faster ROI. Unified scalable entry-level and midrange systems, a seamless family concept enabling system upgrades and ETERNUS SF, the unified management suite across the product line, reduce operational and migration costs. ETERNUS SF provides enterprise-class functionalities in the entry and midrange class and allows flexible disaster recovery concepts for the different model sizes, thus decreasing investment costs.

ETERNUS DX100 S3

The scalable and unified Fujitsu Storage ETERNUS DX100 S3 delivers enterprise-class functionality to small and medium-sized companies and subsidiaries with an excellent price/performance ratio. It is the perfect solution when consolidating data for server virtualization, e-mail, databases and business applications as well as centralized file services. Simple, intuitive system management, highly flexible network connectivity and the option of field upgrades to higher system classes significantly reduce operational and migration costs. The ETERNUS DX family architecture lets customers benefit from software options, such as thin provisioning, automatic storage tiering and quality of service management even as early as the entry-level class. This all contributes to better business support.

Green IT

Green Policy Innovation

Green Product
This product cleared our company's original evaluation standard which followed global environmental measures.

Features & Benefits

Main Features	Benefits
Excellent price-performance in the entry-class	
	■ Performance and capacity headroom enable data consolidation for server virtualization, e-mail, databases and business applications in one system ■ High scalability within the system and upgrade options to bigger systems support high data increases at low costs of growth and ensure investment protection
Enterprise-class management functions in the entry class	
	■ Richly featured ETERNUS SF Express management suite at no extra cost ■ Intelligent snapshot functionality for backup already included ■ Easy and efficient operation with a minimum of administration efforts
Truly unified architecture	
	■ Unified SAN and NAS access drive system utilization improving ROI ■ Unified management functions across the entire product line result in operational efficiency ■ Unified connectivity supports a large range and many combinations of networking types ■ Unified architecture allows flexible combinations of 2.5" and 3.5" disk types

Technical details

General system information

	2.5-inch Controller Enclosure	3.5-inch Controller Enclosure
No. of controllers	1/2	
No. of host interfaces	2/4/8 ports [FC, iSCSI, FCoE, SAS, Ethernet(10Gbit/s)], 4/8/16 ports [Ethernet(1Gbit/s)]	
Max. cache capacity	8 GB (block) / 8 GB + 8 GB (block + file)	
Max. no. of drives	144	
Max. no. of drive enclosures	10	
Note	5 with all 2.5" DE, 10 with all 3.5" DE, 2 with HD-DE or mixture of DEs up to Max no. Drives	
Redundancies	RAID Controller (in 2-controller configuration)	
	Fan	
	Power supply	
Supported RAID levels	0, 1, 1+0, 5, 5+0, 6	
Host interfaces	Fibre Channel (16 Gbit/s, 8 Gbit/s, 4 Gbit/s)	
	FCoE (10 Gbit/s)	
	iSCSI (10 Gbit/s, 1 Gbit/s)	
	Ethernet (10 Gbit/s, 1 GBbit/s)	
	SAS(6 Gbit/s, 3 Gbit/s) - available in April 2014	
Mixed host interfaces	Yes	
Max. no. of hosts	1024	
Supported NAS protocols	CIFS (SMB 2.0), NFSv2, NFSv3, NFSv4	
Max. storage capacity - physical	576 TB	
Drive Type	2.5-inch, SAS, 15,000 rpm (300 GB)	
	2.5-inch, SAS, 10,000 rpm (900 GB / 600 GB / 300 GB)	
	2.5-inch, SAS (self-encrypting), 10,000 rpm (900 GB)	
	2.5-inch, Nearline SAS, 7,200 rpm (1 TB)	
	2.5-inch, SSD (800 GB / 400 GB)	
	3.5-inch, Nearline SAS, 7,200 rpm (4 TB / 3 TB / 2 TB)	
	3.5-inch, SSD (800 GB / 400 GB)	
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.	
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	1 pair of four-lane x 12 Gbit/s Serial Attached SCSI buses (SAS 3.0 wide)	
Max. no. of LUNs	2048	
Max. LUN capacity	128 TB	
Eco-mode	Yes	
Thin Provisioning	Yes	
Quality of Service	Yes	

Business Continuity Features

No. of snapshots - max.	1024
Max. no. of copy generations	512
Data protection features	Cache Protection, Data Block Guard, Data Encryption, Dedicated Hot Spare, Disk Drive Patrol, Global Hot Spare
Security features	HTTPS (SSL), One Time Password, RADIUS, SSH

Options

Automated Storage Tiering	Yes
Reporting function	Yes
Note	Options can be activated via ETERNUS SF Software

Dynamic configuration

Field model upgrade	to ETERNUS DX200 S3
	to ETERNUS DX500 S3
	to ETERNUS DX600 S3
Non-disruptive firmware upgrade	Yes
RAID migration	Yes
LUN online expansion w/o interruption	Yes
Wide striping	Yes
Hot part replacement/ expansion	Yes

Management

Interfaces	Ethernet (1000 Base-T / 100 Base-TX / 10 Base-T)
Supported protocols	SNMP (version1, 2C, 3), SMI-S 1.6
Administration	Web-based graphical user interface, CLI (Command Line Interface), ETERNUS SF

Supported OS for ETERNUS SF Express

Operation Management Server	Windows Server® 2012 R2 Datacenter
	Windows Server® 2012 R2 Standard
	Windows Server® 2012 Datacenter
	Windows Server® 2012 Standard
	Windows Server® 2008 R2 Datacenter
	Windows Server® 2008 R2 Enterprise
	Windows Server® 2008 R2 Standard
	Windows Server® 2008 Datacenter
	Windows Server® 2008 Enterprise
Operation Management Client	Windows® 7 Home Premium
	Windows® 7 Professional
	Windows® 7 Ultimate
	Windows Vista® Home Basic
	Windows Vista® Home Premium
	Windows Vista® Business
	Windows Vista® Enterprise
	Windows Vista® Ultimate
	Windows® XP Home Edition
	Windows® XP Professional
	Windows Server® 2008 Standard
	Windows Server® 2008 Enterprise
	Windows Server® 2008 Datacenter
	Windows Server® 2012 Standard
	Windows Server® 2012 Datacenter
	Windows Server® 2012 R2 Standard
	Windows Server® 2012 R2 Datacenter
Note	See the ETERNUS SF datasheet for further options
Supported configurations	All major host operating systems, servers and business applications
	Detailed support matrix:
	http://www.fujitsu.com/global/services/computing/storage/eternus/products/diskstorage/dx100/#Tab0-4

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 100 - 120 V / AC 200 - 240 V
Power frequency	50 / 60 Hz
Power supply efficiency	92 % (80 PLUS gold)
Maximum Power Consumption	AC 100 - 120 V: 4,120 W (4,230 VA)
	AC 200 - 240 V: 4,120 W (4,230 VA)
Power phase	Single

	2.5-inch Controller Enclosure	2.5-inch Drive Enclosure	3.5-inch Controller Enclosure	3.5-inch Drive Enclosure	High-Density Drive Enclosure
Dimensions (W x D x H)	482 x 645 x 88 mm 19 x 25.4 x 3.5 inch 2 U	482 x 540 x 88 mm 19 x 21.3 x 3.5 inch 2 U	482 x 670 x 88 mm 19 x 26.4 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	35 kg (77 lb)				95 kg (209 lb)
Max. power consumption (AC 100 - 120V)	730 W (740 VA)	430 W (440 VA)	630 W (640 VA)	340 W (350 VA)	1,300 W (1,320 VA)
Max. power consumption (AC 200 - 240V)	730 W (740 VA)	430 W (440 VA)	630 W (640 VA)	340 W (350 VA)	1,300 W (1,320 VA)

Environmental

Maximum Heat Generation	AC 100 - 120 V: 15,600: kJ/h
	AC 200 - 240 V: 15,600: kJ/h
Temperature (operating)	10 - 40 ℃
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 power (LWAd; 1B = 10dB)	6.7B
Sound pressure (LpAm)	49dB(A)
Noise notes	Measured with single enclosure according to ISO 7779 and declared according to ISO 9296
Operating environment	FTS 04230 – Guideline for Data Center (installation specification)
Operating environment Link	http://docs.ts.fujitsu.com/dl.aspx?id=e4813edf-4a27-461a-8184-983092c12dbe

Compliance

Product safety	UL 60950-1, CSA-C22.2 No. 60950-1, EN 60950-1, IEC 60950-1, GOST-R
Electromagnetic Compatibility	CNS 13438, FCC CFR 47 class A , ICES 003 Class A, EN 55022 Class A, VCCI Class A, AS/NZS CISPR 22 Class A
Electromagnetic Immunity	EN 55024
CE certification	2004/108/EC, 2006/95/EC, 2011/65/EC
Approvals	CB, CE, C-Tick, FCC, GOST, 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	http://globalsp.ts.fujitsu.com/sites/certificates

Warranty

Standard Warranty	3 years
Service level	Onsite Service
Warranty Terms & Conditions	http://support.ts.fujitsu.com/warranty/

Maintenance and Support Services - the perfect extension

Support Pack Options	Globally available in major business areas: 9x5, Next Business Day Onsite Response Time 9x5, 4h Onsite Response Time 24x7, 4h Onsite Response Time
Recommended Service	24x7 Fujitsu support for enterprise class services. Please check your specific service level with your FUJITSU sales organization or partner.
Service Lifecycle	5 years after end of product life
Service Weblink	http://www.fujitsu.com/support

Fujitsu OPTIMIZATION Services

In addition to Fujitsu ETERNUS DX100 S3, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

Fujitsu Portfolio

Build 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 offering. This allows customers to leverage 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/services/computing/

Software

www.fujitsu.com/software/

More information

Learn more about Fujitsu ETERNUS DX100 S3, 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

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