

Data Sheet

FUJITSU Storage ETERNUS DX8700 S3 Disk System

Enterprise Storage with leading scalability in capacity and performance



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 and business continuity concepts for the different model sizes, thus decreasing investment costs

ETERNUS DX8700 S3

The ETERNUS DX8700 S3 disk storage system is purpose-built for large enterprises and ideal for the data management of business-critical core applications and the consolidation of large-scale data centers. ETERNUS DX8700 S3 provides non-disruptive capacity upgrades with up to 1536 disk drives, just by adding disks or complete drive enclosures. Performance in the million IOPS range is provided by configurations based on 2 to 8 controllers and a maximum of 128 front-end ports for host connectivity. For simultaneous connection to different network types, FC, FCoE and iSCSI host interfaces can operate in mixed configurations. Tiered storage optimization using a range of SAS, Nearline SAS and SSD drive options lowers the overall total cost of storage. The challenges of data exposure protection are addressed by self-encrypting drives (SED). Flexible and automated management across different quality of service profiles, using different drive types for each application scenario, ensures efficient assignment of system resources matched to the performance priorities of different applications. Highest availability and seamless business continuity is guaranteed by redundant interconnections to the storage array and internal redundant components and completed by transparent failover which ensures uninterrupted operation in case of an outage.



Features & Benefits

| Main Features | Benefits |
|--|---|
| Flexible scalability in capacity and performance | <ul style="list-style-type: none">■ Future-oriented scale-out architecture and upgrade options meet today's and tomorrow's business requirements■ Low cost of growth ensures investment protection■ Superior system utilization■ Large scale storage consolidation■ Leading performance by design |
| Automation to manage unpredictable data growth | <ul style="list-style-type: none">■ Automatically aligned storage performance with business priorities■ Minimized manual tuning efforts■ Optimized service level fulfillment |
| Zero downtime for business critical data | <ul style="list-style-type: none">■ Predictable and reliable operation through end-to-end redundancy, comprehensive high-availability and disaster resilience functions■ Multi-level disaster recovery with various snapshot concepts and remote replication between different models and generations■ Highest business continuity by transparent failover and non-disruptive maintenance as well as upgrade capabilities |

Models and architecture

ETERNUS DX8000 S3 Series

- The massively scalable Fujitsu Storage ETERNUS DX8000 S3 series, the flagship systems of the ETERNUS DX family are purpose-built for behemoth data centers which require outstanding storage performance and huge capacity paired with enterprise-class resiliency and 99.9999% availability. Its automated quality of service management features guarantee maximum system utilization and contribute to a fast ROI.
- It is the perfect solution when consolidating data in OLTP and large-scale databases, file services, business-critical applications and business analytics / big data – all into one system. It provides ample headroom for any demanding virtualization environments. Extensive high-availability and disaster recovery capabilities make ETERNUS DX8000 S3 the ideal storage systems for all business-critical data and fit perfectly in private and public cloud environments of large-scale enterprises and service providers.

Technical details

General system information

| | |
|---|--|
| | Frontend Enclosure |
| No. of controllers | 2 - 8 |
| No. of host interfaces | 128 (FC), 64 (iSCSI/FCoE) |
| Maximum Cache Capacity | 1,024 GB |
| Extreme Cache | 22.4 TB |
| Extreme Cache Pool | 12.8 TB |
| Maximum Disk Drives | 1,536 |
| Max. no. of drive enclosures | 64 |
| Supported RAID levels | 0, 1, 1+0, 5, 5+0, 6 |
| Host Interfaces | Fibre Channel (16 Gbit/s) iSCSI (10 Gbit/s, 1 Gbit/s) FCoE (10 Gbit/s) |
| Mixed host interfaces | Yes |
| Max. no. of hosts | 8,192 |
| Maximum Storage Capacity | 6,144 TB |
| Drive Type | 2.5-inch, SAS, 15,000 rpm (600 GB / 300 GB) 2.5-inch, SAS, 10,000 rpm (1.8 TB / 1.2 TB / 900 GB / 600 GB / 300 GB) 2.5-inch, SAS (self-encrypting), 10,000 rpm (1.2 TB / 900 GB) 2.5-inch, SSD (1.92 TB / 960 GB / 1.6 TB / 800 GB / 400 GB) 2.5-inch, SSD (self-encrypting) (1.6 TB / 800 GB) 3.5-inch, Nearline SAS, 7,200 rpm (8 TB / 6 TB / 4 TB / 2TB) 3.5-inch, Nearline SAS (self-encrypting), 7,200 rpm (4 TB) 3.5-inch, SSD (1.92 TB / 960 GB / 1.6 TB / 800 GB / 400 GB) 3.5-inch, SSD (self-encrypting) (1.6 TB / 800 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. 6 TB/ 8 TB Nearline SAS and 1.8 TB SAS drives are Advanced Format drives. |
| 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 |
| Performance | |
| Random access performance | 1M IOPS |
| 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

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|----------------------|--|
| 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

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|---------------------------------|---------------------------------------|
| 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

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|---------------------------------------|-----|
| Thin Provisioning | Yes |
| RAID migration | Yes |
| LUN online expansion w/o interruption | Yes |
| Reporting function | Yes |
| Hot part expansion | Yes |

Management

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|---------------------|--|
| 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 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 / AC 200 - 240 V | | | |
| Power frequency | 50 / 60 Hz | | | |
| Power supply efficiency | 92 % (80 PLUS gold) | | | |
| Maximum Power Consumption | AC 200 - 240 V: 32,770 W (33,520 VA) | | | |
| Power phase | Single | | | |
| | Frontend Enclosure | Controller Enclosure | 2.5-inch Drive Enclosure | 3.5-inch Drive Enclosure |
| Dimensions (W x D x H) | 482 x 795 x 222 mm 19 x 31.3 x 8.7 inch 5 U | 482 x 809 x 133 mm 19 x 31.9 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 |
| Weight | 64 kg (141 lb) | 54 kg (119 lb) | 35 kg (77 lb) | 35 kg (77 lb) |
| Maximum Power Consumption (AC 200 - 240 V) | 450 W (480 VA) | 1,200 W (1,220 VA) | 430 W (440 VA) | 340 W (350 VA) |

Environment

| | | | | |
|--|---|----------------------|--------------------------|--------------------------|
| Maximum Heat Generation | AC 200 - 240 V: 121,350: kJ/h | | | |
| Temperature (operating) | 10 - 35 °C | | | |
| Temperature (not operating) | 0 - 50 °C | | | |
| 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) | 59.5dB(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 | | | |
| Type | Frontend Enclosure | Controller Enclosure | 2.5-inch Drive Enclosure | 3.5-inch Drive Enclosure |
| Maximum Heat Generation (AC 200 - 240 V) | 1,630 kJ/h | 4,330 kJ/h | 1,600 kJ/h | 1,300 kJ/h |

Compliance

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|-------------------------------|---|
| Product safety | CSA 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, EN 55024 |
| Electromagnetic Immunity | EN 55024 |
| CE certification | 2004/108/EC, 2006/95/EC, 2011/65/EC |
| 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 | http://globalsp.ts.fujitsu.com/sites/certificates |

Warranty

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|-----------------------------|--|
| Warranty period | 3 years |
| Warranty type | Onsite warranty |
| Warranty Terms & Conditions | www.fujitsu.com/support |

Product Support Services - the perfect extension

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|----------------------|--|
| Support Pack Options | 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, Onsite Response Time: 4h |
| Service Lifecycle | 5 years after end of product life |
| Service Weblink | www.fujitsu.com/services/product-services |

Fujitsu OPTIMIZATION Services

In addition to Fujitsu ETERNUS DX8700 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

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 DX8700 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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