

# Online Storage Systems and Tape Systems



## ETERNUS DX Disk Storage Systems



| Model                   | ETERNUS DX60 S2                                                    | ETERNUS DX80 S2 / DX90 S2                                                                                                                                                    | ETERNUS DX410 S2 / DX440 S2                                                                                                                                                    | ETERNUS DX8700 S2                                                              |
|-------------------------|--------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Interfaces              | Fibre Channel (4 / 2 / 1 Gbit/s), iSCSI (1 Gbit/s), SAS (3 Gbit/s) | Fibre Channel (8 / 4 / 2 Gbit/s), FCoE (10 Gbit/s), iSCSI (10 / 1 Gbit/s), SAS (6 / 3 Gbit/s)                                                                                | Fibre Channel (8 / 4 / 2 Gbit/s), FCoE (10 Gbit/s), iSCSI (10 / 1 Gbit/s)                                                                                                      | Fibre Channel (8 / 4 / 2 Gbit/s), FCoE (10 Gbit/s), iSCSI (10 / 1 Gbit/s)      |
| Max. Drives             | 24 x SAS and Nearline SAS in mixed configuration                   | DX80 S2 : 120 / 120 x SSD, SAS and Nearline SAS in mixed configuration (3.5" / 2.5")<br>DX90 S2 : 120 / 240 x SSD, SAS and Nearline SAS in mixed configuration (3.5" / 2.5") | DX410 S2 : 240 / 480 x SSD, SAS and Nearline SAS in mixed configuration (3.5" / 2.5")<br>DX440 S2 : 480 / 960 x SSD, SAS and Nearline SAS in mixed configuration (3.5" / 2.5") | 1,536 / 3,072 x SSD, SAS and Nearline SAS in mixed configuration (3.5" / 2.5") |
| Max. Capacity           | 72 TB                                                              | 360 TB                                                                                                                                                                       | 720 / 1,440 TB                                                                                                                                                                 | 4,608 TB                                                                       |
| No. of host interfaces  | 2 - 4                                                              | 2 - 8                                                                                                                                                                        | 4 - 16 / 4 - 32                                                                                                                                                                | 4 - 128                                                                        |
| No. of connect. Hosts   | 64 x FC / iSCSI or 4 x SAS                                         | Max. 1,024                                                                                                                                                                   | Max. 1,024                                                                                                                                                                     | Max. 8,192                                                                     |
| RAID Level              |                                                                    | 0, 1, 1+0, 5, 5+0, 6                                                                                                                                                         |                                                                                                                                                                                |                                                                                |
| Thin Provisioning & AST | -                                                                  | ✓                                                                                                                                                                            | ✓                                                                                                                                                                              | ✓                                                                              |
| Remote Replication      | -                                                                  | ✓ for DX90 S2                                                                                                                                                                | ✓                                                                                                                                                                              | ✓                                                                              |
| Storage Management      | ETERNUS SF software suite                                          |                                                                                                                                                                              |                                                                                                                                                                                |                                                                                |

## ETERNUS LT Tape Storage Systems



| Model                    | ETERNUS LT20 S2   | ETERNUS LT40 S2       | ETERNUS LT60 S2     | ETERNUS LT250                                         | ETERNUS LT270                  |
|--------------------------|-------------------|-----------------------|---------------------|-------------------------------------------------------|--------------------------------|
| Type                     |                   | LTO-3 / LTO-4 / LTO-5 |                     |                                                       | LTO-3 / LTO-4 / LTO-5 FH       |
| Capacity (max.) (native) | 3.2 / 6.4 / 12 TB | 9.6 / 19.2 / 36 TB    | 19.2 / 38.4 / 72 TB | 36.4 / 72.8 / 136.5 TB                                | 274.8 / 549.6 / 1030.5 TB      |
| Cartridges               | 2 x 4             | 2 x 12                | 4 x 12              | 61-91                                                 | 709                            |
| Drives (max.)            | 1 HH              | 1 FH / 2 HH           | 2 FH / 4HH          | 6                                                     | 20                             |
| Interfaces               | SAS, FC           |                       |                     | SCSI (Ultra 160 LVDS), Fibre Channel (Max x 8 Gbit/s) | Fibre Channel (Max x 8 Gbit/s) |

## ETERNUS JX40 Storage Subsystems



| Model         | ETERNUS JX40                                                 |
|---------------|--------------------------------------------------------------|
| Type          | Passive direct server attached drive extension (JBOD)        |
| Max. Capacity | 12 / 72 TB                                                   |
| Hard Disks    | 1 - 144 SAS and SATA, 2.5" drives mixable in up to 6 shelves |
| Protocols     | SAS                                                          |
| RAID Level    | 1, 3, 5, 6, 1+0, 5+0 (with host-based controller)            |
| Interfaces    | SAS 6 Gbit/s                                                 |

## ETERNUS SF Storage Management Software

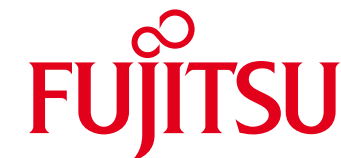
### ETERNUS SF

ETERNUS SF Express  
ETERNUS SF Storage Cruiser  
ETERNUS SF Disk Space Monitor  
ETERNUS SF AdvancedCopy Manager

Fujitsu's Storage Management Software ETERNUS SF reduces total cost of ownership by managing the operation of ETERNUS DX disk storage systems throughout the data's lifecycle. For today's complicated storage environments, ETERNUS SF achieves business continuity and optimizes storage resources.

Simplifies setup and administration of ETERNUS DX Entry-level  
Advanced management and stable operation for all ETERNUS DX storage systems  
Reliable system operations with real-time disk-space visualization  
High-speed internal and external volume copy functions in collaboration with Fujitsu's disk storage systems

# Data Protection and Network Components



## ETERNUS CS800 Data Protection Appliance



| Model                                          | ETERNUS CS800 NAS Series                                                                      | ETERNUS CS800 VTL |
|------------------------------------------------|-----------------------------------------------------------------------------------------------|-------------------|
| Capacity                                       | 4 to 160 TB                                                                                   | 32 to 160 TB      |
| Host Ethernet and Replication Interface        | 5 or 7 x 1 GbE + 2 x 10 GbE                                                                   | 5 x 1 GbE         |
| Fibre Channel Interface (VTL and Path-to-Tape) | 2 x 8 GbFC (except Entry Systems)                                                             | 4 x 8 GbFC        |
| Path-to-Tape                                   | Symantec OST support of direct tape creation, Application specific (except Entry Systems)     |                   |
| NAS Backup Target                              | NFS and/or CIFS mount point                                                                   |                   |
| Shares (max.)                                  | 128                                                                                           |                   |
| Partitions (max.)                              | 64 (except Entry Systems)                                                                     |                   |
| Virtual Tape Drives (max.)                     | 80 (except Entry Systems)                                                                     | 256               |
| Virtual Cartridges (max.)                      | 9000 (except Entry Systems)                                                                   |                   |
| Tape Drives Emulations                         | DLT7000, SDLT 320, SDLT 600, SLT-S4, LTO-1, LTO-2, LTO-3, LTO-4, LTO-5 (except Entry Systems) |                   |
| Library Emulations                             | Quantun Scalar 24 / 100, Scalar i500 / i2000 / i6000 (except Entry Systems)                   |                   |
| Performance                                    | Up to 6.3 TB/h                                                                                |                   |
| Standard Software included                     | Deduplication, Replication, Path-to-Tape, Multiprotocol Support (except Entry Systems)        |                   |
| Note                                           | For detailed specification refer to the data sheet                                            |                   |

## ETERNUS CS HE Data Protection Appliance



| Model                           | ETERNUS CS800 NAS Series CS50 to CS5000, CS500 DL, CS1500 DL, CS1500 ViNS, CS2000 ViNS |
|---------------------------------|----------------------------------------------------------------------------------------|
| NAS Frontend Ports (max.)       | 4 X 10 GbE or 4 x 1 GbE per node                                                       |
| 32 NAS Backend Target           | NFS and/or CIFS mount point                                                            |
| Shares (max.)                   | 2048                                                                                   |
| VTL Frontend Ports              | 2 to 40                                                                                |
| Virtual Tape Drives             | 16 to 1280 (FC), up to 640 (ESCON, FICON)                                              |
| Backend Ports                   | 2 to 40                                                                                |
| Physical Tape Drives (mixed)    | 2 to 112                                                                               |
| Physical Tape Libraries (mixed) | Up to 10z                                                                              |
| System Volume Cache             | 2.4 to 3,648 TB                                                                        |
| Sustained Performance (max.)    | 55 TB/h                                                                                |
| Number of Files (max.)          | 2 billion                                                                              |
| Virtual Tape Volumes (max.)     | 3,000,000                                                                              |
| Physical Tape Volumes (max.)    | 50,000                                                                                 |
| Deduplication Store Option      | Up to 1,600 TB                                                                         |
| Note                            | For detailed specification refer to the data sheet                                     |

## BROCADE SAN Switches



| Model | BROCADE 300 / 5100 / 5300 | BROCADE 6505 / 6510 | BROCADE 7800     | BROCADE 8000       | BROCADE VDX 6710-54 / VDX 6730-32 / VDX 6730-76 | BROCADE DCX 8510-8 / DCX 8510-4 / DCX BACKBONE / DCX-4S BACKBONE |
|-------|---------------------------|---------------------|------------------|--------------------|-------------------------------------------------|------------------------------------------------------------------|
| Type  | FC Switches               |                     | Fabric Extension | Converged Switches |                                                 | Backbones                                                        |
| Ports | FC                        | 24 / 40 / 80        | 24 / 48          | 16                 | 8                                               | 512 / 256 / 512 / 256                                            |
|       | GbE (FCIP)                | -                   | -                | 6                  | -                                               | 44                                                               |
|       | GbE (DCB)                 | -                   | -                | -                  | 24                                              | 6 / 24 / 60                                                      |
|       | GbE (RJ45)                | -                   | -                | -                  | 48 / - / -                                      | -                                                                |
| Speed | FC                        | 1,2,4,8Gbit/s       | 2,4,8,16Gbit/s   | 1,2,4,8Gbit/s      | 1,2,4,8Gbit/s                                   | - / 2,4,8Gbit/s / 2,4,8Gbit/s                                    |
|       | GbE (FCIP)                | -                   | -                | 1Gbit/s            | -                                               | 2,4,8,16Gbit/s / 2,4,8,16Gbit/s / 1,2,4,8Gbit/s / 1,2,4,8Gbit/s  |
|       | GbE (DCB)                 | -                   | -                | -                  | 10Gbit/s                                        | 1,10Gbit/s                                                       |
|       | GbE (RJ45)                | -                   | -                | -                  | 1Gbit/s / - / -                                 | - / - / 10Gbit/s / 10Gbit/s                                      |

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2012-09-24 MP-EN  
Printed in Japan  
BK0165

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