

# Storage Systems and Tape Systems



## ETERNUS DX Series



Model	ETERNUS DX60 S4	ETERNUS DX100 S4 / DX200 S4	ETERNUS DX500 S4 / DX600 S4	ETERNUS DX8900 S4
Type		Hybrid Storage System for Small and Mid-range Enterprises		Enterprise Storage without Limits
Host Interfaces	8 / 16 Gbit/s FC, 1 / 10 Gbit/s [10GBase-T] iSCSI, 12 Gbit/s SAS	8 / 16 / 32 Gbit/s FC, 1 / 10 Gbit/s iSCSI, 1 / 10 [10GBase-T] Gbit/s Ethernet, 12 Gbit/s SAS	8 / 16 / 32 Gbit/s FC, 1 / 10 Gbit/s iSCSI, 1 / 10 Gbit/s Ethernet	8 / 16 / 32 Gbit/s FC, 1 / 10 Gbit/s iSCSI
Max. Disk Drives	48 / 96 x SAS and Nearline SAS in mixed configuration (3.5" / 2.5") * Max. no. of SSDs is eight	144 / 264 x SSD, SAS and Nearline SAS in mixed configuration (3.5" / 2.5")	528 / 1,056 x SSD, SAS and Nearline SAS in mixed configuration (3.5" / 2.5")	6,912 x SSD, SAS and Nearline SAS in mixed configuration (3.5" / 2.5")
Max. Storage Capacity SSD	31 TB	4,424 TB / 8,110 TB	16,220 TB / 32,440 TB	141,558 TB
Max. Storage Capacity HDD	576 TB	1,728 TB / 3,168 TB	6,336 TB / 12,672 TB	80,064 TB
Max. Host Interfaces	4	16	16 / 32	384
No. of Connect. Hosts	Max. 128	Max. 1,024	Max. 4,096	Max. 8,192
RAID levels			0, 1, 1+0, 5, 5+0, 6	
Thin Provisioning & AST	Thin Provisioning: ✓ AST: -	✓	✓	✓
Transparent Failover & Auto QoS	-	✓	✓	✓
Remote Replication	-	✓	✓	✓
Storage Management	ETERNUS SF V16 Storage Management Software suite to achieve business continuity and to optimize storage resources			

## ETERNUS AF



Model	ETERNUS AF250 S2	ETERNUS AF650 S2
Type	All-Flash Arrays	
Host Interfaces	16 / 32 Gbit/s FC, 10 Gbit/s [10GBase-T, 10GBase-SR] iSCSI	16 / 32 Gbit/s FC, 10 Gbit/s iSCSI
Max. Storage Capacity (raw)	1,475 TB	5,898 TB
Max. IOPS	760,000 IOPS (100 % Read, sequential) 430,000 IOPS (100 % Read, random)	2,560,000 IOPS (100 % Read, sequential) 810,000 IOPS (100 % Read, random)
Nominal Latency	Write 60 µs, Read 160 µs (Min.)	Write 60 µs, Read 160 µs (Min.)
Thin Provisioning & AST	✓	✓
Transparent Failover & Auto QoS	✓	✓
Remote Replication	✓	✓
Storage Management	ETERNUS SF V16 Storage Management Software	

## ETERNUS LT Series



Model	ETERNUS LT20 S2	ETERNUS LT140	ETERNUS LT260	ETERNUS LT270 S2
Type	LTO-6, LTO-7, LTO-8			
Max. Capacity (native)	LTO-6 : 20 TB LTO-7 : 48 TB LTO-7 Type-M : 72 TB LTO-8 : 96 TB	LTO-6 : 700 TB LTO-7 : 1,680 TB LTO-7 Type-M : 2,520 TB LTO-8 : 3,360 TB	LTO-6 : 1,400 TB LTO-7 : 3,360 TB LTO-7 Type-M : 5,040 TB LTO-8 : 6,720 TB	LTO-6 : 14,110 TB LTO-7 : 33,864 TB LTO-7 Type-M : 50,796 TB LTO-8 : 67,728 TB
Cartridges (max.)	8	280	560	5,644
Drives (max.)	1	21	42	128
Interfaces	SAS, FC	SAS, FC	SAS, FC	FC

## Storage Software

### ETERNUS SF:

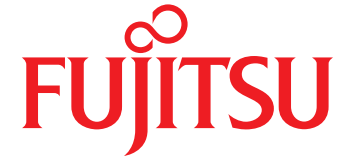
The ETERNUS SF storage management software is the uniform management solution for the entire ETERNUS DX series. All essential operations for storage resource management, monitoring, reporting, tiered storage, performance management, disaster resilience and business continuity are integrated.

### ETERNUS SF at a glance:

- Management of all infrastructure devices based on a unified view
- Visualization of the relations between storage, network and physical servers or virtual servers
- Early detection and elimination of performance issues through performance monitoring
- Reduced initial system infrastructure through thin provisioning
- Fault management with support for fault resolution
- Hardware investment optimization through automated storage tiering
- Reduced storage system power consumption
- Central management for local and remote replication
- Automated Quality-of-Service management
- Non-stop availability with Storage Cluster

More information about our software portfolio is available on: <http://www.fujitsu.com/global/products/computing/storage/software/eternus-sf/index.html>

# Data Protection and Network Components



## ETERNUS CS800



Model	ETERNUS CS800 S7	
	Entry / Flex	Scale
Type	Backup appliance	
Capacity (net usable)	8 - 24 TB / 16 - 280 TB	16 - 640 TB
Capacity (logical)	Up to 1.2 PB / up to 6 PB	Up to 20.0 PB
Ethernet Ports (fixed)	5 x 1 GbE 2 x 10 Base-T GbE	1 x 1 GbE 2 x 10 Base-T GbE
Fibre Channel Ports (optional)	2 x 16 GbFC	4 x 16 GbFC
NAS - supported protocols	CIFS, NFS	CIFS, NFS
NAS Shares (max.)	128	128
Partitions (max.)	64	64
Virtual Tape Drives (max.)	80 / 256	256
Tape Drive Emulations	DLT7000, LTO-1, LTO-2, LTO-3, LTO-4, LTO-5, SDLT 320, SDLT 600, SLT-S4	
Libraries Emulations	Quantum Scalar 24, Scalar 100, Scalar i2000, Scalar i500, Scalar i6000	
Performance	Up to 8.4 TB/h / 8.8 TB/h	Up to 13.9 TB/h
Performance (max. SPEED mode)	Up to 13.4 TB/h	Up to 22.0 TB/h
Standard software included	Deduplication, Replication, Path-to-Tape, OST	

## ETERNUS CS8000



Model	ETERNUS CS8000			
	CS8050 NAS	CS8050	CS8200	CS8400 / CS8800
Type	Storage appliance for archiving	Branch-office backup	Datacenter storage solution for backup and archive automation	
Capacity	28, 42, 56, 70 TB	14 TB	19 TB to 6,004 TB	19 TB to 96,062 TB
VTL Front-end Ports	- (no VTL)	4 FC 32 Gb	4 to 8 FC 32 Gb / FICON 32 Gb	4 to 84 FC 32 Gb / FICON 32 Gb
Virtual Tape Drives	-	max. 32	32 to 64	32 to 5,208
Performance (max.)	-	1.4 TB/h	30 TB/h	150 TB/h
Deduplication Store Option (usable)	-	7 or 14 TB	1 to 480 TB	1 to 4,800 TB
NAS Front-end Ports	2 to 4	- (no NAS)	4 to 8	4 to 84
NAS Shares (max.)	256	-	2,048	
Number of Files (max.)	200 Million	-	2 Billion	
VTL Back-end Ports Option	-	4	4 to 8	4 to 40
NAS Back-end Ports Option	- (no HSM)			4 to 16
Physical Tape Libraries	-	1	10	10

## ETERNUS CD10000



Model	ETERNUS CD10000	ETERNUS CD10000 Quick Start Edition
Type	Hyper-scale, software-defined storage (SDS)	Ceph storage evaluation platform
Host connectivity options	Block, and Object	
Software version	Opensource software: Ceph Enterprise	
Hardware platform	Integrated system based on latest server and disk storage	Flex Node
Storage Management	Fujitsu's GUI Management console	
Node Types	Various Storage Nodes and Infrastructure component options	1x Flex Node hosting multiple virtualized nodes
Basic Configuration	4x Storage node + 1x Management node + Infrastructure included	1x Quick Start Edition
Max. no of nodes	500	1x Flex Node
Max. usable capacity	100 PB	44 TB
Multi-site replication capabilities	Async replication across clusters and sites	-
Application interfaces	Ceph storage interfaces (Object, S3, Block,), OpenStack interfaces (Swift, Cinder, Glance)	

## Brocade Switches



Model	Brocade 300*	Brocade 6505 / 6510 / 6520	Brocade G610 / G620 / G630	Brocade DCX 8510-4 / DCX 8510-8	Brocade X6-4/8	Brocade 7800 / 7840	ExtremeSwitching VDX 6740 / 6740T / 6740T-1G	ExtremeSwitching VDX 6940-36Q / 6940-144S	ExtremeSwitching VDX 8770-4 / VDX 8770-8
Type	Fibre Channel Switch			SAN Backbone		Fabric Extension	Converged Switch		
Max. Ports	FC 24 (SFP+)	24 / 48 / 96 (SFP+)	24 / 48 / 128 (SFP+) - / 4 (QSFP+)	256 / 512 (SFP+)	192 / 384 (SFP+)	16 / 24 (SFP+)	-	-	-
	FCIP	-	-	44 / 44 (SFP+)	-	6 / 16 (SFP+) 0 / 2 (QSFP+)	-	-	-
	GbE	-	-	-	-	-	48 / - / - (SFP+) - / 48 / 48 (RJ45) 4 / 4 / 4 (QSFP+)	- / 96 (SFP+) 36 / 12 (QSFP+)	192 / 384 (SFP+) 48 / 96 (QSFP+)
Speed (Gbit/s)	FC 1, 2, 4, 8	4, 8, 16	4, 8, 16, 32	2, 4, 8, 16	4, 8, 16, 32	1, 2, 4, 8 / 2, 4, 8, 16	-	-	-
	FCIP	-	-	1, 10	-	1 / 1, 10, 40	-	-	-
	GbE	-	-	-	-	-	1, 10, 40 / 1, 10, 40 / 1, 40	40 / 1, 10, 40	1, 10, 40

\* Brocade 300 will be withdrawn from sales at Jan 31st, 2019