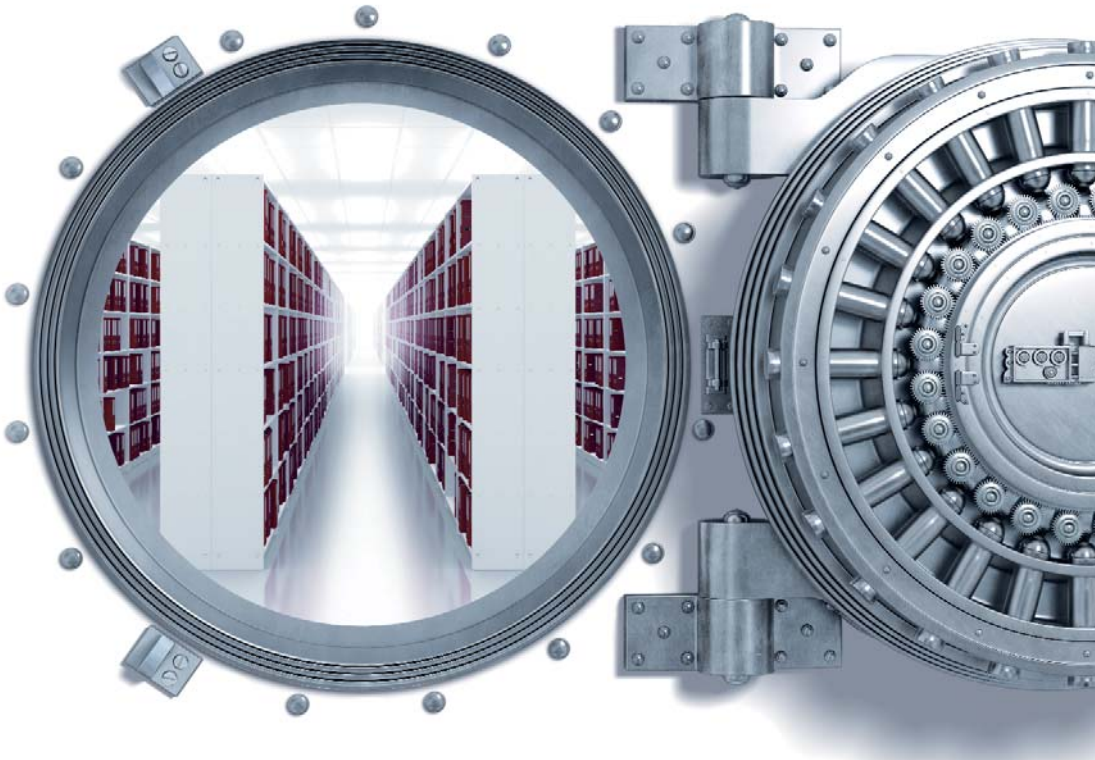
FUJITSU

ETERNUS FOR SMALL AND MEDIUM-SIZED BUSINESSES

RELIABLE STORAGE SOLUTIONS FOR YOUR DYNAMIC INFRASTRUCTURES

- Customized storage solutions for small and medium-sized businesses
- Simple, cost-effective ETERNUS storage systems from Fujitsu



RELIABLE STORAGE SOLUTIONS
TAILORED TO THE NEEDS OF SMB CUSTOMERS

ETERNUS® storage systems from Fujitsu

The reliable ETERNUS DX60/DX80 disk storage systems continue the Fujitsu success story in the entry segment, succeeding ETERNUS2000 model 100/200 and FibreCAT SX60/SX80/SX88. They have been designed to keep your data secure, come what may. That's why we call this product family »The Data Safe«. It offers the following benefits: uncompromised quality, innovation, leading edge performance, and easy-to-manage storage with an outstanding price/performance ratio for excellent ROI in versatile usage scenarios.

With different base models, ETERNUS DX60/DX80 can either connect to hosts via Fibre Channel, iSCSI or SAS. They are easy to install, configure, operate and maintain, integrating well with host operating systems, servers, network infrastructures and backup solutions. Different drive types can be mixed and matched, secured by the relevant monitored RAID levels (0, 1, 1+0, 5, 5+0 and 6) and features to ensure data integrity. Administrators can dynamically move data, spin drives down to save energy or encrypt data to prevent unauthorized access. In the event of power outages, the content of the cache is secured to flash memory. A backup copy is always at hand via snapshots and clones.

ETERNUS LT20/LT40/LT60 systems are reliable tape libraries, optimized for unattended backup to reduce the risk of manual errors dramatically, as well as high and easy scalability. It is designed for high investment protection, leveraging the existing drives in preparation for an upgrade to a larger system. The systems are equipped with LTO technology, the synonym for high capacity, high speed and very low media costs and can be connected via SAS (Serial Attached SCSI) or Fibre Channel interface to the server. So they use the most current, future-proof standard for high data transfer rates and trouble-free transmission.



ETERNUS DX DISK STORAGE SYSTEMS
THE DATA SAFE

ETERNUS DX60/DX80 is the next generation of disk storage systems, which efficiently manage data growth leveraging enterprise features. With ETERNUS disk storage systems, Fujitsu sets new standards in reliability, speed and innovation. ETERNUS DX60 and DX80 are equipped with many features that make the systems extremely reliable. ETERNUS DX60/DX80 with their very attractive price are the leading disk storage systems for SMB customers.

Key features at a glance:

Reliability: With ETERNUS DX60 and DX80 you get enterprise class reliability in an entry-level disk storage system.

- **Cache Protector** takes care of the cache in case of power failures without the limitations of traditional battery solutions.
- **Redundant Copy** solves the problem of dangerously increasing recovery times within a RAID group by copying the data before the drive fails.
- **Data Block Guard** helps to ensure data integrity both on the disk and in the cache via the check code.
- **RAID Migration** makes it easy to manage different storage tiers by moving LUNs dynamically between different RAID groups.
- **SAS and Nearline SAS** hard disk drives as well as high-end Solid State Drives offer the optimal mixture of performance and capacity. In addition, Nearline SAS drives have the capacity and low cost of SATA drives, while using the enterprise SAS interface which is more reliable, feature-rich, dual ported and faster.
- **Eco-mode** reduces energy consumption and heat dissipation by using MAID functionality, which »spins down« your idle drives.
- **Main components** such as power supply unit, hard disks and RAID controller are redundant and hot-pluggable.

Cache Protector

uses capacitor technology instead of batteries to write the RAID controller cache to non-volatile flash memory during power outages. The cache data is secured for an unlimited time and does not depend on battery capacity. The array can return to high performance mode within minutes after restore. Furthermore, capacitors do not need as much maintenance, and have a longer lifespan than batteries.

Redundant Copy

rebuilds a disk automatically out of the parity information of the RAID group, as soon as the first signs of failure appear. In most cases, Redundant Copy helps to pro-actively replace a disk before it actually breaks. This dramatically minimizes the risk of permanent data loss.

Innovation and speed: ETERNUS DX80 is the first entry level system which offers 8 Gbit/s Fibre Channel connectivity. Up to 1024 snapshots and clones provide quick backups and accelerate data recovery.

Versatility: ETERNUS DX60 and DX80 support a wide range of operating systems and servers as well as applications.

Simplicity: System installation only requires a few steps. ETERNUS DX60/DX80 is also easy to manage during daily operations. The systems have a graphical user interface and are intuitive to operate.





	ETERNUS DX60		ETERNUS DX80	
Host interfaces	4 Gbit/s Fibre Channel or 1 Gbit/s iSCISI or 3 Gbit/sSAS		4 or 8 Gbit/s Fibre Channel or 1 Gbit/s iSCSI or 3 Gbit/s SAS	
Storage Controllers	Single	Dual	Single	Dual
Cache Memory	1 GB	2 GB	2 GB	4 GB
Numb. of host interfaces	2	4	2	4
Number of connectable hosts	32 x FC or 32 x iSCSI or 2 x SAS	64 x FC or 64 x iSCSI or 4 x SAS	64 x FC or 64 x iSCSI or 2 x SAS	128 x FC or 128 x iSCSI or 4 x SAS
Drive count	2 – 24 (no SSD)		2 – 120 (max. 5 SSD)	2 – 120 (max. 9 SSD)
Maximum Storage Capacity	10.8 TB w/SAS drives		54 TB w/SAS drives	
	24 TB w/Nearline SAS drives		120 TB w/Nearline SAS drives	
Supported server platform	Windows Server, Solaris™, HP-UX, AIX, VMware, Red Hat Enterprise, Linux AS/ES, SUSE Linux Enterprise Server		Windows Server, Solaris™, HP-UX, AIX, VMware, Red Hat Enterprise, Linux AS/ES, SUSE Linux Enterprise Server	
LUNs	Max. 512		Max. 1024	
Snapshots	Max. 512		Max. 1024	

OPTIMUM USE OF ETERNUS DX60 AND DX80

In database environments (e.g. SQL, Oracle)	In business continuity scenarios (high availability)	With server virtualization (e.g. VMware)	As decentralized storage	For file services
Reliable protection of business-critical and important data	Certified for x10sure, our attractively priced cluster solution for SMBs	High availability of the data on virtual servers thanks to high transfer speeds	ETERNUS DX60/DX80 offers high performance (connectivity with FC, iSCSI or SAS for better access to data)	ETERNUS DX 60/DX80 is ideal for consolidation of huge amounts of data
High performance (FC, iSCSI or SAS interfaces; use of SAS- and Nearline SAS disk drives as well as SSD)	4 servers can be connected directly, FC, iSCSI or SAS-attached; with iSCSI or FC switches, this limit is much higher	Data redundancy solutions in the virtualization arena can be implemented with DDM or DataCore solutions	Can be used in heterogeneous environments (also works well with servers from other vendors)	Data is available with different service levels depending on the different stages of its lifetime on Nearline SAS and SAS disk drives as well as on SSD
High storage capacity (from 600 GB to 120 TB)	Released for traditional cluster solutions, such as Microsoft Cluster Server (MSCS) and Primecluster	Rapid installation and implementation in the network	Certified for major operating systems: Windows Server 2003/2008, Linux, VMware and Solaris 9 and 10	
Simple administration makes data management easy	Quick, easy and synchronous mirroring of data with the DuplexDataManager (DDM)	External data consolidation, SAN, iSCSI or SAS attached		
Serverless backup thanks to VSS & snapshot functionality increased data security	Rapid backup of data (among other things thanks to support of CA BrightStor ARCserve)			



ETERNUS LT

RELIABLE TAPE SOLUTIONS

In terms of backup and archiving issues, the interaction between ETERNUS DX and ETERNUS LT systems provide the perfect solution for securing data from disk to tape. The ETERNUS LT tape storage systems are based on proven LTO technology, which unites large capacities, high speed and very low media costs. ETERNUS LT is designed for high investment protection leveraging the existing drives in preparation for an upgrade to a larger system. You can choose from the following systems in keeping with your individual needs:

The ETERNUS LT20 is a compact and extremely reliable tape library for small and medium-sized companies. It is a member of the ETERNUS LT product family and constitutes a cost-effective introduction to tape automation. The system occupies just one unit, can accommodate up to eight cartridges and offers an (uncompressed) storage capacity of up to 6.4 terabytes. The ETERNUS LT20 supports different host interfaces: SAS and Fibre Channel.

The ETERNUS LT40 (2 height units) and ETERNUS LT60 (4 height units) are very compact tape storage libraries. They accommodate up to 24/48 data cartridges and are equipped with one or two/one to four LTO drives, respectively. Both systems can be easily upgraded with a software license and support partitioning which can be activated via a license key. If your business uses backup software such as NetWorker®, by adding two LTO drives, you can achieve low cost media cloning. The data is written to two tapes, which can then be stored at one or more secure locations.

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	ETERNUS LT20	ETERNUS LT40	ETERNUS LT60
			
Type	LTO tape library	LTO tape library	LTO tape library
Drive type	LTO-3 / LTO-4	LTO-3 / LTO-4	LTO-3 / LTO-4
Max. capacity (uncompressed)	3.2 TB / 6.4 TB	9.6 TB / 19.2 TB	19.2 TB / 38.4 TB
Max. capacity (compressed)	6.4 TB / 12.8 TB	19.2 TB / 38.4 TB	38.4 TB / 76.8 TB
Max. no. of slide-in modules	8	24	48
Max. no. of drives	1	2	4
Interfaces	FC / SAS	FC / SAS	FC / SAS

»We are sticking rigorously to our approach of delivering powerful and reliable storage solutions tailored to the specific requirements of small and medium-sized enterprises. ETERNUS LT storage systems are a low-cost way for companies to introduce automated tape backup.«

Helmut Beck, Vice President Storage Division, Fujitsu Technology Solutions

MAKING THE MOST OF ETERNUS POWER:

SERVICE FOR HIGH EFFICIENCY AND RELIABILITY IN OPERATION

ETERNUS stands for low-cost, uncomplicated and reliable storage and archiving of enterprise data. Companies that do not have extensive internal IT know-how it can run their ETERNUS storage systems securely and efficiently by utilizing our supplementary services.

Our service portfolio offers proactive and reactive measures for hardware and software that are performed on-site and ensure the desired availability in a cost-effective way. Proactive services ensure that any system problems that might occur do not lead to a failure with an impact on business operations. Reactive services offer solutions as part of individually agreed service, response and recovery times. Enterprises can flexibly tailor these services to suit their individual availability needs. Very high business continuity requirements are also supported, thanks to our excellent service levels. Apart from this flexibility, the service portfolio also guarantees the greatest possible transparency, since items such as spare parts and travel costs are already included in the customer's service package.

We will be pleased to help you define a service solution that is geared precisely to your company's requirements.



ETERNUS DX AND PRIMERGY SERVERS
FUJITSU'S DREAM TEAM

ETERNUS DX60/DX80 disk storage systems and PRIMERGY servers, based on Intel® Xeon® processors, can be perfectly combined. Together they build a winning team – the Dream Team.

ETERNUS DX60/DX80 and PRIMERGY RX300 S5 with their Fibre Channel, iSCSI or SAS interfaces can be easily integrated into Dynamic Infrastructures. Preconfigured and pretested storage and server configurations ensure a simple installation and administration, as well as comfortable hardware and software maintenance. In addition, a wide range of installation and maintenance services make life as easy as possible. In daily operation, combined management software for the server and storage simplifies administration.

Storage + server solutions from Fujitsu

- Allow IT consolidation scenarios with best-in-class solutions
- Are delivered and maintained all by one source
- Contain all components in pretested an certified combinations
- Are customized and implemented to your demands





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