Turn your data into competitive advantage

FUJITSU Storage ETERNUS AB All-Flash Storage and ETERNUS HB Hybrid Storage

Data-centric Storage

The ability to monetize data is essential for digital transformation. However, data relevant to business decisions no longer resides in the data center alone – it is extremely dispersed and also located on user devices, in the cloud, at service providers, customers, partners, suppliers, documentation archives and many other places. How can you control this ever-increasing chaos? With data-centric storage. It enables you to manage data across heterogeneous environments in the digital world and ensures the availability of all the data you need to move your business forward quickly, reliably and flexibly.

Simplify your digital transformation with the FUJTISU Storage ETERNUS AB and HB series

FUJITSU Storage ETERNUS AB All-Flash Storage and ETERNUS HB Hybrid Storage are NVMe-ready flexible SAN storage systems with the performance and efficiency of block storage devices. Leverage enterprise-class performance for the workloads of your core applications and databases such as Microsoft SQL Server, Oracle, SAP, and others. At the same time, benefit from advanced data protection capabilities and sustainably reduce your costs.

Superior performance and efficiency for workloads where high application responsiveness is crucial

High reliability and availability for data protection and utilization at all times

Unmatched flexibility with easy customization of configurations according to performance and capacity requirements

Learn more about ETERNUS Storage:
www.fujitsu.com/eternus

shaping tomorrow with you

Data-centric storage makes the difference

A widely distributed infrastructure at the edge, in the core and in the cloud is the norm in digital business – and this is even more true for data. Data-centric storage is at the heart of such a modern infrastructure and is characterized by some very special capabilities:

Edge

- Support for real-time analytics close to the hardware device
- Data pre-processing and reduction to reduce bandwidth requirements to data centers
- Key technologies: IoT, AI, 5G, edge data centers
- Factors: high data with low bandwidth, latency, cost, data sovereignty and security

Core

- Flash storage takes center stage
- NVMe/NVMe over fabric
- Integrated data protection
- Data privacy and security
- Provision of usage-based storage services
- Automation

Cloud

- Data accessible to multiple application-centric IT environments
- Data-as-a-Service (DaaS)

ETERNUS AB All-Flash Storage and ETERNUS HB Hybrid Storage are made for enterprise SAN. The modular, high-performance, block-based, RAID-only storage systems are extremely scalable and come with software that greatly simplifies configuration and data management. While ETERNUS AB is exclusively configured with SSDs, ETERNUS HB has a mix of SSDs and HDDs.

Distinctive features of ETERNUS AB and HB

NVMe

End-to-end support for NVMe from host to drives

- Makes ETERNUS AB and HB the ideal systems for very demanding and compute-intensive enterprise, cloud and edge data environments
- Reduces total cost of ownership and empowers you to drive key lines of business with maximum performance and an infrastructure with a small footprint

Restful API

The logical choice for modern application environments

- Powerful API for reporting performance at the system and logical component level
- Enables automation and orchestration
- Ensures seamless integration in existing eco systems
- Supported by a strong eco system of partners

Cloud backup

Cost-effective basic backup and recovery in the cloud

- Support for full-block and file-based backup and restore
- Deployment for use with existing Amazon S3 accounts possible
- Incremental backups save bandwidth and costs

Superior performance and efficiency

- → Ultra-fast response times of less than 100 microseconds
- → End-to-end NVMe storage platform purpose-built for high performance
- → Extremely scalable secondary cache for the highest operational efficiency

ETERNUS AB All-Flash and ETERNUS HB Hybrid storage systems are built for highly demanding and compute-intensive enterprise, cloud and edge data ecosystems. The systems feature end-to-end support for NVMe host-to-drive connections and a wide range of high-performance, cost-effective host interfaces for SAN fabric and direct attached storage. This enables ultra-fast response times of less than 100 microseconds. As a result, the systems deliver extremely high power density and workload throughput at an exceptional price/performance ratio. Another innovative feature is the secondary cache. It ensures high operational efficiency. For workloads that require a large amount of read processing, it enables efficient usage of hard disks, reduced latency, and high read speed by copying frequently accessed data (hot spots) from an HDD volume to an SSD cache. No guidelines are required to define a point in time for moving data between tiers. You set up the system only once – it is then immediately ready for operation. The secondary cache can be expanded up to 5 TB per storage system. Flexible interfaces, incredible performance density and efficient management helps you reduce the total cost of ownership substantially and boost your business with ultimate performance.

High reliability and availability

- → Drive encryption does not negatively impact performance
- → Nonstop operation if a cable or drive shelf fails
- → Fault tolerance – continued I/O even if a drive failure occurs
- → Guaranteed validity of all stored data

ETERNUS AB and HB storage systems provide complete protection for your data and ensure that you can use it for your business anytime. Encrypted drives and key management protect data from unauthorized access or alteration due to theft, loss or diversion of drives. Encryption does not affect performance in any way, and that is important for your daily business processes. You have two options: Full-drive encryption (FDE) at the hardware level with the AES-256 encryption standard, or configuration according to Federal Information Processing Standards (FIPS), which offers an even higher level of security. Redundant transmission paths between the shelves ensure non-stop operation in the event of a cable or drive-shelf failure. In addition, redundant drive configuration guarantees I/O continuity even in the event of drive failures. Finally, ETERNUS AB and HB storage systems guarantee the integrity of all stored data. For this purpose, error-check codes are added when writing data, and the data consistency on the data transfer paths is checked.

Unmatched flexibility

- → Configurations easily tailored to performance and capacity requirements
- → Support for multiple drive sizes and for a wide range of host interfaces
- → Cost-effective options for improving daily operations

The configurations of ETERNUS AB and HB storage systems can be very easily adapted according to performance and capacity requirements. This makes it easy for you to optimally tailor systems for use cases such as big data analysis or high-performance computing. In other words, you have extremely flexible enhancement options. The same applies to the drives. The systems support multiple drive sizes, so you can meet different business needs with, for example, NVMe, 2.5-inch or 3.5-inch SAS drives. Host interface flexibility with support for FC and iSCSI as well as SAS and InfiniBand completes the package. ETERNUS AB and HB storage systems guarantee maximum flexibility even during operation. For example, Restful API allows easy integration of applications into existing ecosystems and the flexible cloud connectivity opens up very cost-effective options for backup strategies.

More performance, reliability and flexibility for your business decisions

ETERNUS AB ALL-FLASH STORAGE

	AB2100	AB3100	AB5100	AB6100
				
Number of controllers	2	2	2	2
Max. system memory	64 GB	32 GB	128 GB	256 GB
Max. storage capacity	1,468 TB	367 TB	1,836 TB	367 TB
Max. No. of SSDs installable	96	24	120	24
Max. No. of host interfaces	12 Port [FC (4, 8, 16Gbit/s)] 8 Port [FC (32Gbit/s)] 12 Port [iSCSI (10Gbit/s)] 8 Port [iSCSI (10GBase-T)] 8 Port [iSCSI (25Gbit/s)] 8 Port [SAS (12Gbit/s)]	8 Port [FC (8, 16, 32Gbit/s) 8 Port [NVMe over FC (32Gbit/s)] 4 Port [NVMe over InfiniBand (100Gbit/s)] 4 Port [NVMe over RoCE (100Gbit/s)] 8 Port [iSCSI (25, 10Gbit/s, SFP+)] 4 Port [IB iSER (100Gbit/s)] 4 Port [IB SRP (100Gbit/s)]	12 Port [FC (4, 8, 16Gbit/s)] 8 Port [FC (32Gbit/s)] 8 Port [NVMe over FC (32Gbit/s)] 12 Port [iSCSI (10Gbit/s)] 8 Port [iSCSI (25Gbit/s)] 4 Port [IB iSER (100Gbit/s)] 4 Port [IB SRP (100Gbit/s)] 8 Port [NVMe over InfiniBand (100Gbit/s)] 4 Port [NVMe over Ethernet (100Gbit/s)] 8 Port [SAS (12Gbit/s)]	16 Port [FC (8, 16, 32Gbit/s)] 16 Port [NVMe over FC (32Gbit/s)] 8 Port [NVMe over InfiniBand (100Gbit/s)] 8 Port [NVMe over RoCE (100Gbit/s)] 16 Port [iSCSI (10, 25Gbit/s)]
Drive interface	SAS 12 Gbps	NVMe	SAS 12 Gbps	NVMe
Supported RAID	0, 1, 1+0, 3, 5, 6, DDP (Dynamic Disk Pools)			
No. of drive shelves (DE) connected	3	0	4	0

For information on the management software, please see the data sheet.

ETERNUS HB HYBRID STORAGE

	HB1100/HB1200	HB2100/HB2200/HB2300	HB5100/HB5200
			
Number of controllers	2		
Max. system memory	16 GB	64 GB	128 GB
Max. storage capacity	HB1100: 432 TB HB1200: 194 TB	HB2100: 3,456 TB HB2200: 2,894.4 TB HB2300: 3,456 TB	HB5100: 7,927.2 TB HB5200: 8,640 TB
Max. No. of HDDs installable	48 (HB1200), 24 (HB1100)	192 (HB2300), 168 (HB2200), 192 (HB2100)	480 (HB5200) 444 (HB5100)
Max. No. of SSDs installable	8	120	120
Max. No. of host interfaces	4 Port [FC (4, 8, 16Gbit/s)] 4 Port [iSCSI (10Gbit/s)] 4 Port [iSCSI (10GBase-T)]	12 Port [FC (4, 8, 16Gbit/s)] 8 Port [FC (32Gbit/s)] 12 Port [iSCSI (10Gbit/s)] 8 Port [iSCSI (10GBase-T)] 8 Port [iSCSI (25Gbit/s)] 8 Port [SAS (12Gbit/s)]	12 Port [FC (4, 8, 16Gbit/s)] 8 Port [FC (32Gbit/s)] 8 Port [NVMe over FC (32Gbit/s)] 12 Port [iSCSI (10Gbit/s)] 8 Port [iSCSI (25Gbit/s)] 4 Port [IB iSER (100Gbit/s)] 4 Port [IB SRP (100Gbit/s)] 4 Port [NVMe over InfiniBand (100Gbit/s)] 4 Port [NVMe over RoCE(100Gbit/s)] 8 Port [SAS (12Gbit/s)]
Drive interface	SAS 12 Gbps		
Supported RAID	0, 1, 1+0, 3, 5, 6, DDP (Dynamic Disk Pools)		
No. of drive shelves (DE) connected	1	3	7

For information on the management software, please see the data sheet.

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