Fsas Technologies

a Fujitsu company

Storage & Data Protection Solutions

Protect, store, and manage your data

Start

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Storage Solutions - benefit from your data

The ability to monetize data is essential for digital transformation. Depending on your business scenario, you need storage technologies that optimally support your requirements to control this ever-increasing chaos. Fsas Technologies is comprised of effective solutions that help your IT team provide the right data service levels with reduced cost per gigabyte for all business scenarios.

AI, deep learning, and machine learning workloads require high-performance, scalable and secure storage solutions.

In real-time business analytics, large data volumes require faster storage response times for as long as the data sets are relevant.

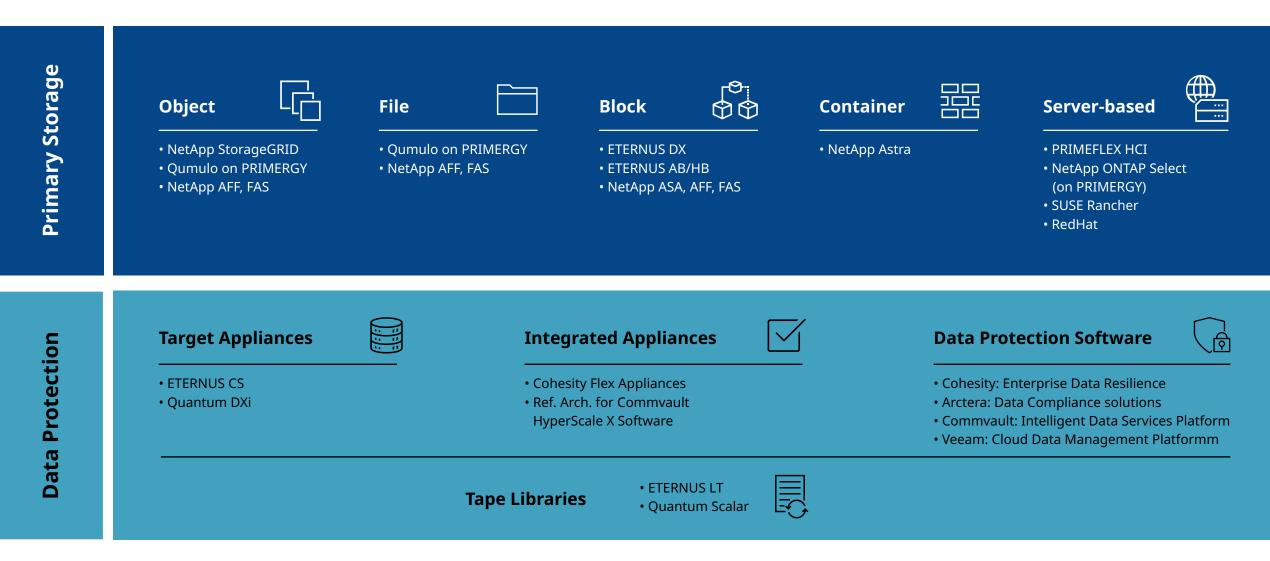Storage systems for business-critical data need to be more scalable and provide stronger fault tolerance.

The rapid increase in unstructured data from services like online archives, file sharing, and video streaming is creating a demand for new mid- and long-term storage solutions for secondary storage systems.

What's more, backup and archiving need to scale to greater dimensions.

The right storage for your data

Primary Storage

Object
- NetApp StorageGRID
- Qumulo on PRIMERGY
- NetApp AFF, FAS

File
- Qumulo on PRIMERGY
- NetApp AFF, FAS

Block
- ETERNUS DX
- ETERNUS AB/HB
- NetApp ASA, AFF, FAS

Container
- NetApp Astra

Server-based
- PRIMEFLEX HCI
- NetApp ONTAP Select (on PRIMERGY)
- SUSE Rancher
- RedHat

Data Protection

Target Appliances
- ETERNUS CS
- Quantum DXi

Integrated Appliances
- Cohesity Flex Appliances
- Ref. Arch. for Commvault HyperScale X Software

Data Protection Software
- Cohesity: Enterprise Data Resilience
- Arctera: Data Compliance solutions
- Commvault: Intelligent Data Services Platform
- Veeam: Cloud Data Management Platformm

Tape Libraries
- ETERNUS LT
- Quantum Scalar

ETERNUS:
The right choice for all your storage needs!

With our storage solutions, you can master any challenge arising from digital transformation.

ETERNUS systems provide better business support at lower cost. They enable you to align existing storage resources with business priorities by providing features like automated quality of service. At the same time, new performance levels contribute to better system utilization, which has a direct impact on ROI.

The ETERNUS storage line-up, combined with our partners' leading technologies, offers versatile solutions. These range from ultra-fast response applications and data consolidation in a single system to hyper-scale, software-defined storage and powerful, user-friendly data protection solutions.

You can always rely on the right storage for the right data scenario:

ETERNUS DX
hybrid storage effectively consolidates storage infrastructures for structured and unstructured data by balancing speed, capacity and cost in one system.

ETERNUS AB/HB
end-to-end, NVMe-ready all-flash and hybrid storage systems with the performance and efficiency of block storage systems, offering best-in-class IOPS and balanced speed, capacity, and costs. Extremely scalable, shipped with software that considerably simplifies configuration and data management.

ETERNUS CS
backup & archive solutions leveraging disk, deduplication and tape technologies. ETERNUS CS data protection solutions enable you to rigorously consolidate your backup, archive, and second-tier storage infrastructures while supporting your business with top service levels.

ETERNUS LT
tape systems offering the most cost-efficient backup and archive infrastructure. ETERNUS LT systems perfectly meet the requirements of low-cost backup and long-term archiving in hybrid IT environments and provide the last line of defense against cyberattacks.

For on-premise and hybrid cloud

For backup and archiving

Consolidate storage
with ETERNUS DX hybrid storage

ETERNUS DX hybrid storage is ideal if you want to host data for performance-hungry applications like virtualization, databases or OLTP alongside unstructured data, online archives and other "lukewarm" data – all in a single system. These solutions facilitate a maximum of storage consolidation for structured and unstructured data by balancing speed, capacity and cost in one system. ETERNUS DX hybrid storage systems, with their SSD tier, deliver "all-flash-like" performance, thus allowing for a gradual transition to all-flash, while high-capacity hard disks store unstructured data at the lowest cost. The very latest automation technologies enable you to manage hybrid configurations (SSDs, SAS, Nearline SAS) with a minimum of manpower. Just define the needed response time per volume, and ETERNUS DX will assign the suitable bandwidth and/or invoke storage tiering.

How the ETERNUS DX Storage Series differs from other hybrid storage systems

Performance
ETERNUS hybrid storage offers the performance advantages of all-flash drives alongside conventional HDDs. The latest models can handle up to three times more transactions and host 50 percent more virtual machines.

Automation
ETERNUS DX hybrid storage offers the latest automation technologies. These systems are intelligent enough to move data between flash and disk drives depending on usage. Automated quality-of-service management and failover take care of complex storage management tasks.

Mainframe class robustness
ETERNUS DX hybrid storage provides constant data protection supported by the highest levels of built-in system security to prevent access to valuable business data. Business continuity is increased thanks to increased data availability of up to 99.9999 percent – which corresponds to less than one minute of unplanned downtime per year.
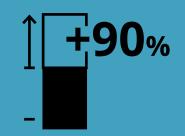
ETERNUS SF storage management software

Entry-level / Midrange

Enterprise

ETERNUS DX600

ETERNUS DX900

ETERNUS DX8900

More Info

+90%

Boost capacity utilization up to **90** percent with no performance bottlenecks

Ensure business continuity by boosting data availability to **99.9999** percent

Synergy effects provided by the ETERNUS DX model concept

Simplify storage management and administration

ETERNUS SF storage management software is the unified management system for the ETERNUS DX systems. It ensures that IT administrators, trained to operate a specific system will also be able to manage the other models.

• Scale and upgrade easily from one model level to the next
• Reduce complexity and cost of administration
• Protect investments in technologies and know-how

Mitigate risks with 100 percent assurance

ETERNUS Storage Cluster (active/active & active/standby) between ETERNUS systems automatically executes failover both bidirectional and between different ETERNUS DX hybrid storage models and generations, thus supporting uninterrupted operations very efficiently.

• Automate for the worst case
• Benefit from simple and safe transparent failover
• Maintain business continuity

ETERNUS Storage Cluster

Turn your data into a competitive advantage
with ETERNUS AB and ETERNUS HB

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. The modular, 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. Leverage enterprise-class performance for the workloads of your core applications and databases such as Microsoft SQL Server, Oracle, SAP, and others. All while benefiting from advanced data protection capabilities and sustainably reducing your costs.

Distinctive features of ETERNUS AB and ETERNUS 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 levels
- 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

More Info

Superior performance and efficiency

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

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
- **Autonomous ransomware protection**, based on machine learning

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

NetApp's comprehensive hybrid-cloud portfolio

On-premise, hybrid or public clouds: better together

Our partners with NetApp to build and integrate data fabric within hybrid clouds. We help customers maximize the potential of their data in a hybrid-cloud environment through a well-crafted data fabric strategy and data management expertise. NetApp's data fabric maximizes operational efficiency, protects critical data, and accelerates business outcomes. NetApp hybrid cloud offers a single user and management experience wherever the data resides:

• Drives **high performance and efficiency** to the cloud while bringing simplicity to the enterprise
• Delivers a **cloud-neutral data management** and continuous optimization with ONTAP software
• Offers an **open architecture** to give customers choice and investment protection – no silos
• Offers **flexible consumption models**
• Facilitates **data protection, security, and compliance,** no matter the location

Get more out of IT investments with hybrid cloud

Business agility

Build a flexible data fabric to manage your hybrid IT environment

• Use a mix of clouds for a business, activate when needed with seamless integration.
• Add workloads anytime, deploy and scale anywhere.

Financial control

Respond easily to changing requirements with unified, scalable storage

• A flexible consumption model and automation reduce financial risk.
• An agile infrastructure allows choice of location to optimize costs.

Security and compliance

Accelerate your speed of business and transform your data center economics

• Maintain compliance with multinational regulatory bodies.
• Maintain business continuity; mix cloud and on-premises options for data security.

■ NetApp®

NetApp All-flash FAS

• Scale-out all-flash storage
• Industry's most advanced data management

Best for:
• Modernizing shared infrastructures
• Accelerating applications
• Consolidation of mixed workloads

More Info

NetApp Hybrid Flash

• Made for growing requirements
• Rich data management
• Easy cloud connection

Best for:
• Enterprise applications
• Virtualization
• Microsoft solutions
• Back-up/recovery

More Info

Software-defined storage tackles next-generation workloads, big data, and massive data growth

An explosion in unstructured data is one of the biggest headaches of the digital era, with digital businesses tackling ever-increasing amounts of information that needs to be stored and accessed by different locations and applications. Fsas Technologies offers market-leading software-defined storage (SDS) solutions to address the challenges of explosive data growth. Based on Qumulo for file storage and NetApp for object storage, our solutions are designed to better support modern workloads and ensure seamless compatibility with multi-cloud environments. Share and control data across a multitude of locations and between different applications for broader business usage.

Qumulo enterprise file data platform

Scale-out file
The Qumulo solution rapidly scales hundreds of TB into PBs, handles tens of billions of files and serves thousands of users with cost-efficient storage for different files. It intelligently adapts to your growing needs and supports billions and billions of large and small files in a single namespace.

Machine learning management and real-time analytics
Flash-first architecture using NVMe and SSD caching depending on the model you are choosing. Built-in machine learning enables more than 90% of read requests to be analyzed at the touch of a button. It delivers real-time visibility into data and users, enabling effective data management.

Enterprise solution
Qumulo provides a ready-to-use, certified storage solution including certified hardware platforms for seamless operation and easy support.
Rebuild times of less than one hour deliver uninterrupted operations at scale as no treewalks are necessary. Share data across all user types – Windows, Linux, Mac – with shared data across NFS and SMB protocols.

Qumulo

We are teaming up with **Qumulo** to provide a seamless combination of the security and dependability of on-premises scale-out NAS storage with the flexibility of cloud storage. The partnership enables us to integrate unstructured file data from edge, cloud, and core into a single solution.

File Storage
– the best fit for:

- Filesharing
- Healthcare
- Video surveillance
- Analytics
- Hybrid data centers
- xSP
- HPC

Available on PRIMERGY RX2540 M7

More Info

Highlights

- All-NVMe cluster (option)
- Automation/RestAPI's
- Real-time analytics
- 10s of billions of files (of any file size)
- Flash-first architecture

Software-defined storage tackles next-generation workloads, big data, and massive data growth

NetApp StorageGRID

- Software-defined, object-based storage platform that provides intelligent policy-driven data management
- Massively scalable and easy-to-use global data repository for unstructured data
- Supports standard object storage protocols like AWS S3 and OpenStack Swift
- Supports file system storage protocols like NFS and SMB
- Hybrid cloud enabled

Optimized for enterprises:

StorageGRID software-defined object storage suite is ideal for use cases across public, private, and hybrid multi-cloud environments. It optimizes the data durability and availability across multiple geographies and enables hybrid-cloud workflows – whether your data is on premises or in a public cloud – to fit your business demands.

Enable hybrid cloud

Industry-leading hybrid cloud integration with user-controlled platform services. Keep your data in a local private cloud while taking advantage of public cloud offerings. Storage tenants can configure mirroring of select objects at the bucket level to an S3-compatible public cloud.

Proven software designed for nondisruptive operations

StorageGRID is an 11th-generation object store with nearly two decades of production deployments in the most demanding industries. With advanced features such as the NetApp Active IQ® intelligence platform for proactive, immediate response, it is a solution to trust with critical data assets.

■ NetApp

Object Storage
- the best fit for:

More Info

- Media streaming
- Data analytics
- OLTP and OLAP environments

Ensure fast recovery
with data protection appliances

Data is the "new gold" in the digital world. This is not only true for any organization, but also for cybercriminals. Data faces numerous threats in today's environment. Every data has its own need for protection – according to its value. Wouldn't it be great to have a reliable solution in place that deals with all this complexity on its own? Our data protection solutions make it easy to keep speed, capacity, and cost in balance for backup and archiving. Our appliances, combined with leading partner technologies, safeguard data integrity, enable rapid recovery after downtime, and protect sensitive data from threat, corruption, or loss across your hybrid IT estate. We ensure that the right data service levels are delivered to provide 24/7 business continuity from on-premises to the cloud.

How our offering differs from other solutions

Leading performance and scalability enable rigorous consolidation of backup infrastructures and ensure that service levels can be reliably fulfilled with regard to capacity, speed and costs.
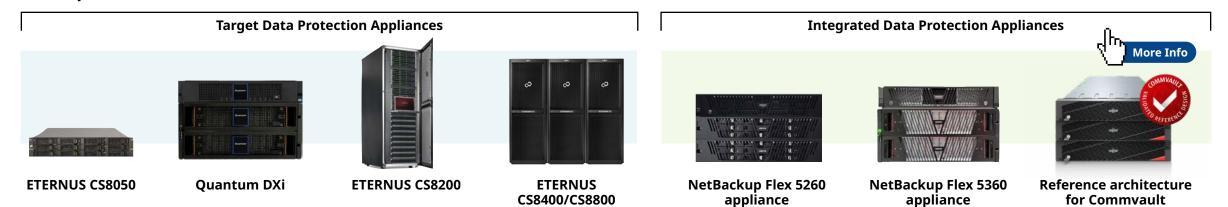
Highly developed, automated high-availability and disaster recovery functions ensure an easy and efficient guarantee of backup and restore service availability.

Appliance concept with leading backup, archiving and deduplication functions make the management of backup and restore operations simple and efficient.

Broad portfolio with the best of breed

Target Data Protection Appliances

ETERNUS CS8050

Quantum DXi

ETERNUS CS8200

ETERNUS CS8400/CS8800

Integrated Data Protection Appliances

More Info

NetBackup Flex 5260 appliance

NetBackup Flex 5360 appliance

Reference architecture for Commvault Hyperscale X

Utilize tape libraries
against ransomware

Fsas Technologies a Fujitsu company | **Quantum.**

Organizations are reappreciating tape in their data protection strategy to safeguard business data against cyber threats.

Tape storage is inherently offline and provides an 'air gap' between live data and protected data which is essential to thwarting ransomware and malware. In addition, tape storage comes with the most attractive price/TB ratio, and when not in used, tapes consume zero energy and help to save money while providing the safest option.

ETERNUS LT and Scalar tape libraries from our partner Quantum offer impressive scalability, rock-solid reliability and the most cost-effective way to store, protect, and recover your data. Since 1983, we and Quantum have been working closely together to deliver proven joint solutions for data protection and data management. Quantum is our global "Preferred Storage Partner" for tape libraries in the mid-range and enterprise segments. Quantum Scalar tape libraries offer low-cost, secure, and intelligent storage for data backup, long-term data archiving, and cyber protection.

Advantages:

- Safety
  - Airgap
  - Physical WORM
- Sustainability
- Attractive Pricing (€ / TB)

Tape library portfolio

Entry-level and midrange storage

ETERNUS LT20   **Scalar i3**   **ETERNUS LT140**   **Scalar i6**

Enterprise storage

Scalar i7 RAPTOR   **Scalar i6000**

More Info

A strong ecosystem that will protect your data reliably

COHESITY   **COMMVAULT**   **arctera**   **veeAM**

Combining our storage systems with leading partner technologies
from Veritas, Commvault and Veeam, we form an extensive ecosystem to safeguard data integrity and guarantee always-on data availability – a key factor determining business success. We have the expertise to ensure that the right data service levels are delivered with the right protection at the right cost. With over 50 years of experience providing storage solutions including disaster recovery, data backup and data archiving, we master any challenge arising from digital transformation and data growth.

Cohesitiy NetBackup simplifies the protection of your information-driven enterprise through automation, advanced technologies, and standardized operations across applications, platforms, and virtual environments.

Arctera EnterpriseVault is the industry's most widely deployed archiving solution: a platform that bridges the gap between a company's legal department and IT by adding intelligence to the way organizations store, manage and discover information.

Commvault Data Services simplifies an data-driven organization's ability to manage data across its lifecycle with integrated modules for backup and recovery, archive, replication, analytics, and more. Commvault HyperScale™ software is a powerful, cloud-ready solution bringing scale-out infrastructure to the Commvault data platform.

Veeam Backup & Replication is a powerful, reliable and easy to use software that reduces operational overhead with flexibility to suit your business and market-leading reliability. It delivers dependable availability across all cloud, virtual, and physical workloads with a simple, flexible and reliable solution.
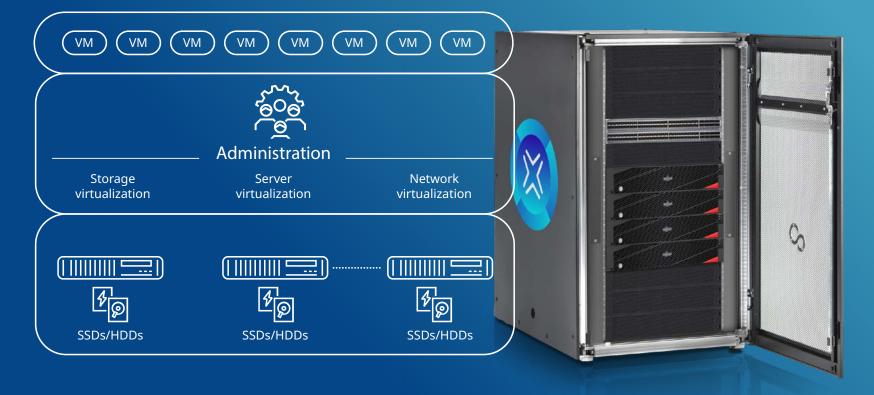
More Info

Go hybrid – but how?
Storage in hyper-converged infrastructures

Hyper-converged architectures are gaining momentum as an alternative to discrete storage combining server and storage functionalities in one building block. Storage capacity and performance can thus be increased simultaneously by simply adding more building blocks.

PRIMEFLEX represents a wide range of pre-defined, pre-integrated and pre-tested combinations of data center components, such as servers, storage, network connectivity, and software.
Since infrastructure design, component integration, and testing have been completed before your project even starts, all that needs to be done on site is to deploy the integrated system and incorporate it into the production environment. We support hyper-converged infrastrucutre based on VMware, Microsoft and Nutanix software with the PRIMEFLEX family of integrated systems.

More Info

VM VM VM VM VM VM VM VM

Administration

Storage virtualization

Server virtualization

Network virtualization

SSDs/HDDs

SSDs/HDDs

SSDs/HDDs

Accelerate your business with an agile, consumption-based business model

While cloud adoption is surging, smart organizations recognize that a "cloud-first" approach isn't always the optimal strategy. Indeed, about 79% of organizations feel a portion of their cloud spending is "wasted". Rising public cloud costs are prompting a reevaluation of cloud strategies, emphasizing efficiency and optimization. The future lies in a workload-first approach, where infrastructure types are matched to specific workloads, acknowledging the co-existence of on-premises, hybrid, and public cloud environments. This ensures cost-effectiveness and optimal performance for every application.

What is uSCALE?

uSCALE allows you to consume infrastructure, on-premise, with monthly pay-per-use billing as a service. In practice, Fsas Technologies deploys sufficient capacity to meet your initial demand plus a buffer zone for growth. Each month's billing is based on actual usage subject to a minimum volume lock. With a broad range of certified infrastructure, workload-ready platforms, and software solutions to choose from, uSCALE is ready to support your business transformation needs:

• No provisioning risk with built-in buffer capacity
• You only pay for the resources you use, ensuring optimal capacity
• Get proactive insights, personalized guidance, and stay compliant and safe

Planning your IT infrastructure?

uSCALE's Price Estimator helps you accurately calculate costs, compare configurations, and make informed decisions. Get a clear picture of your potential spending, optimize your budget, and confidently choose the most cost-effective solution for your needs. Experience the flexibility, scalability, and cost-efficiency of uSCALE, your proven model for modern, cloud-like IT solutions.

uSCALE Price Estimator

More Info

uSCALE for...

... for Compute

... for Data Management

... for SAP

... for Hybrid Cloud

... for Containers

... for Virtualization

... for Cyber Resilience

Fsas Technologies
a Fujitsu company

Whatever your storage challenge:
We have the right solution for every data scenario.

https://www.fujitsu.com/emeia/products/
computing/storage/