



Solution Brief

NetApp ONTAP and Fujitsu for Enterprise AI/ML

Speed innovation with high-performance distributed training

Key Benefits

Accelerate and Scale Performance and Protect Your Data

- Deliver the highest possible throughput without disruption
- Guard against data loss and accelerate recovery with integrated data protection
- Protect your sensitive company and customer information with built-in data security

Streamline Operations and Reduce Costs

- Simplify management with a unified management interface and a single set of tools
- Lower storage costs with automatic cold data tiering
- Eliminate business disruptions due to failures, maintenance, and site disasters

Future-Proof Your Infrastructure

- Meet demanding and constantly changing business needs with a solution that delivers seamless scalability, easy cloud connectivity, and integration with emerging applications
- Proven enterprise-grade data services and simple technology refreshes
- Protect and secure your data across the hybrid cloud

Challenge

Computer vision capabilities are having a significant impact in almost every industry, from autonomous vehicles to AI-assisted medical diagnosis. Training the machine learning (ML) algorithms used for computer vision applications is an extremely demanding workload, requiring massive quantities of data and significant computing power.

Solution

This NetApp® and Fujitsu solution is designed to handle large datasets by using the processing power of GPUs along with traditional CPUs. State-of-the-art NetApp AFF storage systems enable IT departments to meet enterprise storage requirements with industry-leading performance, superior flexibility, cloud integration, and best-in-class data management. Designed specifically for flash, AFF systems help accelerate, manage, and protect business-critical data.

The Fujitsu PRIMERGY GX2570 server is an extremely powerful deep learning (DL) platform that benefits from the equally powerful storage and network infrastructure to deliver maximum value. The combined solution of PRIMERGY servers and NetApp storage systems provides an infrastructure that delivers excellent performance and seamless scalability with industry-leading data management.

Accelerate and Scale Performance and Protect Your Data Speed innovation and get to market faster

To achieve maximum performance, you need storage that can keep pace with the processing power of your GPUs and CPUs. NetApp AFF storage systems running NetApp ONTAP® data management software offer the highest possible throughput with latency as low as 100 microseconds, making them ideal for the most demanding workloads. Granular QoS controls help maintain performance levels for critical applications in highly shared environments.

Keep your data safe

Data is everything when it comes to AI and ML operations, and protecting that data is crucial to the success of your projects and your business. NetApp AFF systems come with a full suite of integrated and application-consistent data protection software. Space-efficient NetApp Snapshot™ and clone copies enable you to perform complete backups frequently, without affecting performance and without requiring additional storage space. NetApp SnapMirror® technology enables you to replicate your data to any NetApp FAS or AFF system, on your premises or in the cloud, for disaster recovery—all with low recovery point objectives (RPOs) and recovery time objectives (RTOs) with no data loss.

Native volume-level encryption and key management help guard your sensitive data on your premises, in the cloud, and in transit. Multifactor authentication, role-based access control, secure multitenancy, and storage-level file security help further protect your data.

Streamline Operations and Reduce Costs

Simplify data management

High-performance computing environments running AI and ML operations are inherently complex. In the largest environments, hundreds or even thousands of systems run in parallel to complete millions of jobs per day. Managing all of these compute nodes along with the network and storage components is a daunting task. NetApp and Fujitsu have automated the deployment and management of the infrastructure using Ansible, further simplifying the operation of AI and ML systems.

NetApp ONTAP 9, the industry-leading enterprise data management software, simplifies management of the most complex environments. A single management interface with a single set of tools streamlines and simplifies operations regardless of where your data resides. It also allows you to freely move your data to wherever it's needed—the edge, the core, or the cloud.

Snapshot and thin-cloning technologies enable creation of near-instant copies of data, helping to streamline development workflows and providing opportunities for more frequent testing using up-to-date production data. Seamless replication of Snapshot copies and clones enables bursting development capacity to the cloud and leveraging the ever-growing array of cloud-based tools.

Effortless sharing of data between AI systems, analytics, and other critical business systems reduces infrastructure overhead, improves performance, and streamlines data management across the enterprise.

Lower TCO

NetApp AFF systems running ONTAP 9 leverage built-in storage efficiencies that help to reduce your TCO. Data compaction and deduplication enable you to store more data in less storage, significantly reducing the amount of storage you need to purchase, both on your premises and in the cloud. FabricPool helps reduce costs by automatically tiering cold data to lower-cost storage in the public cloud or in NetApp StorageGRID® object storage on your premises.

With NetApp AFF systems, you can dramatically reduce your data center costs with the most effective capacity for any workload, backed by the industry's most effective guarantee.

Future-Proof Your Infrastructure

NetApp ONTAP is the most cloud-connected storage management software, with options for software-defined storage (ONTAP Select) and cloud-native instances (NetApp Cloud Volumes Service) in all public clouds.

To accommodate your ever-expanding data growth, ONTAP supports the nondisruptive addition of capacity to existing controllers as well as to scale-out clusters, and it offers enterprise-grade data services for next-generation platforms and applications. You get full scalability of data storage and computation power with multiple Fujitsu servers.

About Fujitsu

Fujitsu is the leading Japanese information and communication technology (ICT) company, offering a full range of technology products, solutions, and services. Approximately 132,000 Fujitsu people support customers in more than 100 countries. We use our experience and the power of ICT to shape the future of society with our customers. For more information, please see www.fujitsu.com.

About NetApp

NetApp is the data authority for hybrid cloud. We provide a full range of hybrid cloud data services that simplify management of applications and data across cloud and on-premises environments to accelerate digital transformation. Together with our partners, we empower global organizations to unleash the full potential of their data to expand customer touchpoints, foster greater innovation and optimize their operations. For more information, visit www.netapp.com. #DataDriven