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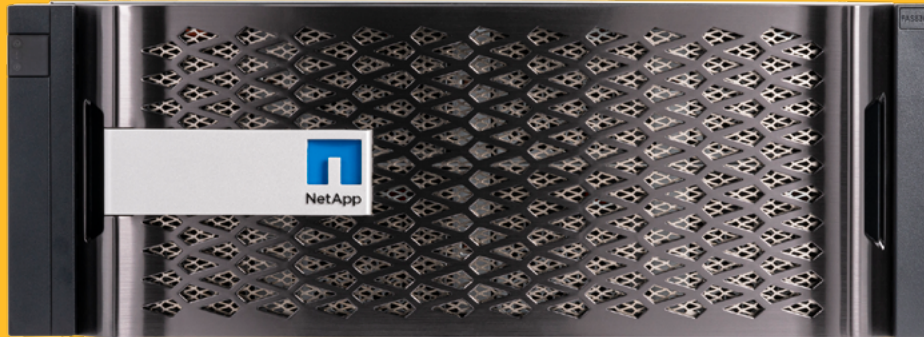
NETAPP FAS
STORAGE ARRAYS

The #1 customer-trusted, cloud-optimized unified storage platform

The challenge

Simplifying data management on premises and in the public cloud

Organizations of all sizes are increasingly challenged with streamlining their storage operations. They need to store and back up their ever-growing volume of data while their budgets are shrinking. They need a solution that enables them to meet their on-premises requirements while incorporating their public cloud strategy.

The solution

Ideal balance of capacity and performance storage that also simplifies your operations with best-in-class data management

NetApp® FAS storage arrays, powered by NetApp ONTAP® data management software, help you build a storage infrastructure that is simple, smart, and trusted. FAS systems provide the optimal balance of capacity and performance for easy deployment and operations while also having the flexibility to handle future growth and cloud integration.

With their highly available hardware and powerful software, FAS systems cost effectively deliver the data protection, security, and scalability to safeguard your data and drive operational efficiency. Whether you're running a small business, a remote office, or a large enterprise, the FAS family's leading range of unified capabilities for SAN, NAS, and object workloads make it an ideal solution for your general-purpose business applications as well as for backup and retention.

Future-proof your investment

When you invest in NetApp FAS storage, you can future-proof your investment with NetApp Advance, our best-in-class storage ownership experience. Make the smart choice today and stay current with technological innovations while protecting your investment.

- Eliminate the headache of tech refreshes with the Storage Lifecycle Program. Get a new controller every 3 years with support-managed updates included, or move to the cloud— whichever best meets your needs.

- Achieve high performance while minimizing energy usage with the Storage Efficiency Guarantee: If we don't meet your workload goals, we'll make it right at no cost to you.

Simple

Streamline your storage operations

When it comes to long-term investments in storage infrastructure, it's crucial to focus on simplifying your storage environment and reducing total cost of ownership. The FAS family offers significant advantages:

- Reduce costs and minimize your storage footprint: Automatically move your infrequently used data to more cost-efficient object storage—on premises or in the cloud—without having to refactor your applications.
- Eliminate silos by supporting NAS, SAN, and object workloads on one unified system.
- Go from initial power-on to serving data in less than 10 minutes with simple application provisioning.
- Simplify ongoing management by upgrading software or servicing storage with zero downtime during regular business hours.
- Accelerate business operations by leveraging NetApp Snapshot™ copies to instantly create writable clones for use in DevTest, report generation, and analytics.
- Increase the efficiency of your staff by using the deep integration of ONTAP with key business applications.

Smart

Scale and adapt to meet changing needs

The FAS family has the flexibility to keep up with your growing business as your capacity and performance requirements change. Scale up by adding capacity or by upgrading controllers. Scale out by growing from 2 nodes up to a 24-node cluster with 176PB of capacity. Plus, you can cluster different combinations of FAS and AFF models to build out your environment by adding new generations of storage with the latest technologies.

The FAS family also supports massive NAS containers, which are easy to manage. With the NetApp FlexGroup feature of ONTAP 9, a single namespace can grow to 20PB and 400 billion files while maintaining consistent high performance and resilience.

With nondisruptive addition and replacement of storage systems and components, scaling occurs without maintenance windows or the challenge of coordinating downtime across teams. And you can perform your updates during regular work hours.

Integrate with the cloud

FAS systems running ONTAP are optimized for private and hybrid cloud by providing secure multitenancy, quality of service, nondisruptive operations, and easily defined tiers of service. Plus, NetApp offers a number of options for extending your FAS system to the hybrid cloud with Amazon Web Services, Microsoft Azure, Google Cloud, and other leading cloud providers. Easily move your data between your on-premises FAS system and cloud environments by using NetApp SnapMirror® data replication software.

KEY BENEFITS

Secure and protect your data across the hybrid cloud

- On your premises and in public clouds, we have you covered. Start small and scale nondisruptively as your data requirements grow.
- NetApp cloud integration lets you connect effortlessly to the cloud with leading integration to AWS, Microsoft Azure, Google Cloud, and others.

Flexibly adapt to your evolving business needs

- Scale capacity and performance nondisruptively.
- Effortlessly integrate with public clouds.
- Optimize your storage infrastructure with predictive analytics and proactive care

Cost effective and proven for diverse workloads

- High volume of unstructured data (media and entertainment, medical imaging, EDA).
- Distributed enterprise business applications; NAS and SAN consolidation (databases, virtual machines).
- Disaster recovery target and backup consolidation.

Optimize your storage with smart management

You don't need to be a storage expert to use the broad range of capabilities in the NetApp storage management portfolio.

- Simplify and speed up day-to-day management activities with ONTAP System Manager. The new GUI provides quick insights into capacity, system health, networking, and performance history.
- Streamline your management of multiple storage clusters with NetApp Active IQ® Unified Manager. Boost the efficiency of your staff by monitoring petabytes of data from a single dashboard, and receive notifications to quickly resolve issues before they affect data services. The latest version of Active IQ Unified Manager provides insights and advice on security risks and compliance.

Use the insights and recommendations derived from predictive analytics and community wisdom to optimize and protect your storage investments with Active IQ. Expose risk factors and prevent problems before they affect your business. Benefit from insights and best-practice recommendations derived from the collective wisdom of NetApp's large user base. Implement this actionable intelligence to prevent problems, save time, and make smarter decisions when managing your infrastructure with ONTAP System Manager and Active IQ Unified Manager.

Trusted

Secure company and customer data across your hybrid cloud

- Easily and efficiently safeguard your data with autonomous ransomware protection.

- Protect against weak administrative passwords, the leading cause of system compromises, by using multifactor authentication.

- Designate and validate authorized users with role-based access control.

- Use storage-level file security to prevent unauthorized administrators from accessing or deleting crucial intellectual property.

- Meet privacy standards, including GDPR, by cryptographically shredding and sanitizing individual files.

Protect against data loss and accelerate recovery
FAS systems running ONTAP provide comprehensive, integrated data protection to safeguard your data. Meet your requirements for local backup with near-instant recovery by using space-efficient NetApp Snapshot copies. Achieve remote backup/recovery and disaster recovery with NetApp SnapMirror asynchronous replication. Plus, deep integration with leading backup applications makes management easier.

Achieve unparalleled availability and nondisruptive operations
NetApp MetroCluster™, SnapMirror Business Continuity, and SnapMirror Synchronous technologies expand data protection to eliminate risk of data loss by synchronously mirroring data between locations for continuous availability of information. Storage arrays can exist in a single data center or in two different data centers that are located across a campus, across a metropolitan area, or in different cities. No matter what happens, your data can be protected from loss, and with MetroCluster and SnapMirror Business Continuity, it is continuously available to meet business-critical needs.

FAS systems are engineered to meet demanding availability requirements. All models are designed to deliver at least 99.9999% availability through a comprehensive approach that combines highly reliable hardware, innovative software, and sophisticated service analytics.

Harness the Power of ONTAP to Simplify and Accelerate Your Storage Environment:

Data access protocols	• FC, iSCSI, NVMe/FC, NVMe/TCP, FCoE, NFS, SMB, S3
High availability	• Active-active controller architecture • Nondisruptive maintenance, upgrade, and scale-out clustering • Multisite resilience for continuous data access
Storage efficiency	• Inline data compression, deduplication, and compaction • Space-efficient LUN, file, and volume cloning • Automatic data tiering
Data management	• Intuitive onboard GUI, REST APIs, and automation integration • AI-informed predictive analytics and corrective action • Quality-of-service (QoS) workload control • Easy provisioning and data management from market-leading host operating systems, hypervisors, and application software
Scalable NAS	• Large-scale single namespace management with local and remote caching
Data protection	• Application-consistent Snapshot copies and restore • Integrated remote backup/disaster recovery • Synchronous zero-data-loss replication • Tamper-proof Snapshot copies
Security and compliance	• Autonomous ransomware protection • Multifactor admin access • Secure multitenant shared storage • In-flight and data-at-rest encryption • Regulatory-compliant data retention • Multi-admin verification before executing sensitive commands
Cloud integration	• Seamlessly tier, back up, replicate, and cache data to private and public clouds • Move data between major public cloud services

NetApp FAS Storage Arrays:

- **FAS9500.** Designed with a modular architecture that is optimized for serviceability and availability. Ideal for large, consolidated environments.
- **FAS8700.** High-end system that is optimized for high capacity and performance to consolidate multiple business workloads.
- **FAS8300.** Designed for a wide range of midrange deployments that need a balance of capacity, performance, and prices.
- **FAS2820.** Optimized for small and midsize businesses that require simple deployment and operations. Ideal for high-capacity use cases.
- **FAS2750.** Optimized for small and midsize businesses that require simple deployment and operations. Supports up to 24 internal drives plus external storage shelves.

Get it right from the start by using NetApp expertise and tools

Realize the most from your investment by engaging professional services experts from NetApp or our Services Certified partners. When moving data into your new environment, smooth the transition and mitigate risks by using proven NetApp methodologies, tools, and best practices. Learn more at netapp.com/services.

	FAS9500	FAS8700	FAS8300	FAS2820	FAS2750
Maximum scale-out	Up to 24 nodes (12 HA pairs)	Up to 24 nodes (12 HA pairs)	Up to 24 nodes (12 HA pairs)	Up to 24 nodes (12 HA pairs)	Up to 24 nodes (12 HA pairs)
Maximum drives per HA pair	1440	1440	720	144	144
Maximum raw capacity per HA pair	14.7PB	14.7PB	11.5PB	2.3PB	1.2PB
Controller chassis form factor	8U	4U	4U	2U/12 internal drives	2U/24 internal drives
OS version	ONTAP 9.10.1P3 and later	ONTAP 9.7 RC1 and later	ONTAP 9.7 RC1 and later	ONTAP 9.4 RC1 and later	ONTAP 9.4 RC1 and later
Storage protocols supported	FC, FCoE, iSCSI, NFS, pNFS, CIFS/SMB, AWS S3	FC, iSCSI, NFS, pNFS, CIFS/SMB, AWS S3	FC, iSCSI, NFS, pNFS, CIFS/SMB, AWS S3	FC, FCoE, iSCSI, NFS, pNFS, CIFS/SMB, AWS S3	FC, FCoE, iSCSI, NFS, pNFS, CIFS/SMB, AWS S3
Shelves and media	See netapp.com for current information.				

Table 1) NetApp FAS technical specifications

Note: All HA pair specifications are for dual controller, active-active configurations.

[1] Maximum raw capacity depends on the drive offerings. For current information, see netapp.com.

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