



Datasheet

NetApp FAS2600 Series Hybrid Storage Systems

Simplify your storage with leading data management

Key Benefits

Delivers Best Value for Your IT Investment

- Achieves aggressive price/performance with up to 3x more performance
- Serves SAN and NAS workloads with advanced unified architecture
- Meets more business needs with best-in-class data management
- Increases return on investment with enhanced storage efficiencies

Simplifies Storage Operations

- Allows you to upgrade software and add or retire storage with zero downtime
- Streamlines application provisioning
- Handles complicated management tasks

Grows with Your Changing Needs

- Lets you start small and grow big, invest in what you need, and add without disruption
- Connects seamlessly to the cloud with leading integration
- Builds a foundation for a NetApp® Data Fabric across flash, disk, and cloud

The Challenge

Integrating data management across flash, disk, and cloud

Organizations of all sizes and local offices of larger companies are challenged more than ever by shrinking budgets, overextended staff, and the ever-changing demands caused by data growth. Plus, there are flash and cloud adoption to consider. These challenges, coupled with the increasing complexity of your Microsoft Windows, VMware, or server virtualization environment, can quickly consume your budget and affect the productivity of your staff.

The Solution

Hybrid storage with best-in-class data management and cloud integration

Designed to support more of your IT needs, the NetApp FAS2600 hybrid storage arrays provide more value than other systems in their class. The FAS2600 running NetApp ONTAP® storage software simplifies the task of managing growth and complexity by delivering high performance, providing leading integration with the cloud, supporting a broader range of workloads, and seamlessly scaling performance and capacity.

You can build a foundation for a NetApp Data Fabric that leverages flash acceleration and public cloud storage resources to cost effectively handle dynamic storage needs. For growing organizations that are concerned about budgets today and meeting challenging IT needs in the future, the FAS2600 is a great choice.

Simplifies storage operations

Free up your time, money, and people. You don't need to be a storage expert to deploy and manage NetApp storage systems. The NetApp FAS2600 series offers a powerful range of technologies to help reduce complexity and increase the efficiency of your storage administrators. Your organization can:

- Manage 2 to 3 times more storage. Leading integration with key business applications helps administrators to be more efficient.
- Streamline application provisioning. Application-aware data management automatically applies best practices and optimizes data placement on your NetApp storage based on adaptive quality of service (QoS) policies.
- Upgrade software and add or retire storage without downtime. The FAS2600 with nondisruptive operation (NDO) technology lets you dynamically handle more storage tasks during regular work hours without costly interruption to IT.

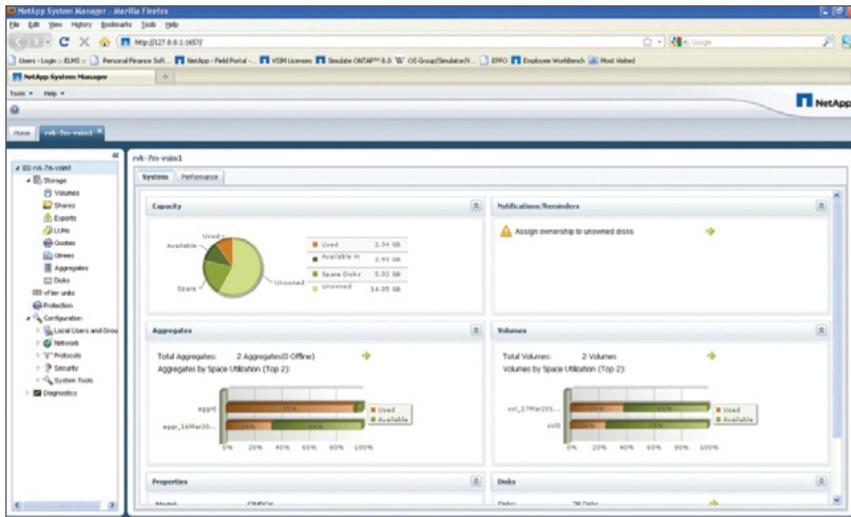


Figure 1) You don't need to be an expert to configure your storage with the simple, easy-to-use NetApp OnCommand System Manager console.

- Optimize your NetApp systems with the predictive analytics and proactive support of NetApp Active IQ®. Fueled by NetApp's massive user base, Active IQ artificial intelligence and machine learning create actionable insights that help you prevent problems, optimize your configuration, save time, and make smarter decisions.
- Protect your critical data more efficiently with integrated data protection by using NetApp technologies such as RAID-TEC™ (triple-parity), and Snapshot™.

OnCommand® System Manager is a simple but powerful browser-based management tool to simplify ongoing management and administration. Now running natively in ONTAP, it can be accessed using a browser to initialize the cluster and create storage virtual machines (SVMs) for data access. Later, OnCommand System Manager can manage the entire cluster from within ONTAP, eliminating the need for an external management server.

In addition to the standard set of powerful software that comes in the Base Bundle with every FAS2600 system, the optional Premium Bundle and extended value software products offer advanced capabilities such as instant data recovery, instant cloning, synchronous data replication, application-aware backup and recovery, NetApp Volume Encryption, and data retention.

Delivers the most value for your IT investment

FAS2600 hybrid storage arrays are built to deliver robust capabilities, so your investment supports the broadest possible set of IT needs. Each FAS2600 delivers:

- **Increased price-performance value.** NetApp Flash Cache™ intelligent data caching, based on NVMe technology, is integrated into all FAS2600 models to accelerate workloads, reduce latency, and deliver up to 3 times the performance compared to the previous FAS2500 generation.
- **Best-in-class storage efficiency.** Enhanced inline compression delivers efficiency and storage savings without compromising

performance. Along with inline deduplication, inline compaction, thin provisioning, and other data reduction technologies, these features deliver leading storage efficiency.

- **Advanced IT integration options.** The enhanced onboard connectivity of the FAS2600 supports a broader set of applications with eight flexible, unified target adapters (UTA2s) and four 10GbE ports, both of which can also be used for cluster interconnectivity.
- **Expanded enterprise-class data management.** Leverage NDO, adaptive QoS, and superior virtualization integration, which are usually offered only in the highest-end systems, to meet complicated IT needs.
- **Security.** Easily, efficiently protect your at-rest data by encrypting any volume on FAS (and AFF) systems with NetApp Volume Encryption. No special encrypting disks required. Plus, multifactor authentication increases security, and cryptographic shredding enables GDPR compliance.
- **Scalable NAS containers.** With NetApp FlexGroup, support very large NAS environments in a single namespace that can scale up to 20PB and 400 billion files with consistent high performance and resiliency.

Built to meet your changing needs

As your business grows and priorities change, it is important to have a storage solution that responds to your changing IT requirements dynamically and cost effectively. The NetApp FAS2600 series offers multiple ways to support your growing needs:

- Start small and grow big by nondisruptively adding more nodes as needed, without incurring large capital expenses up front.
- Support and consolidate new NAS and SAN workloads with a unified architecture.
- Scale out up to 24 nodes to support your increasing storage requirements.
- Upgrade to higher-end NetApp systems while using the same data management software and tools, which reduces

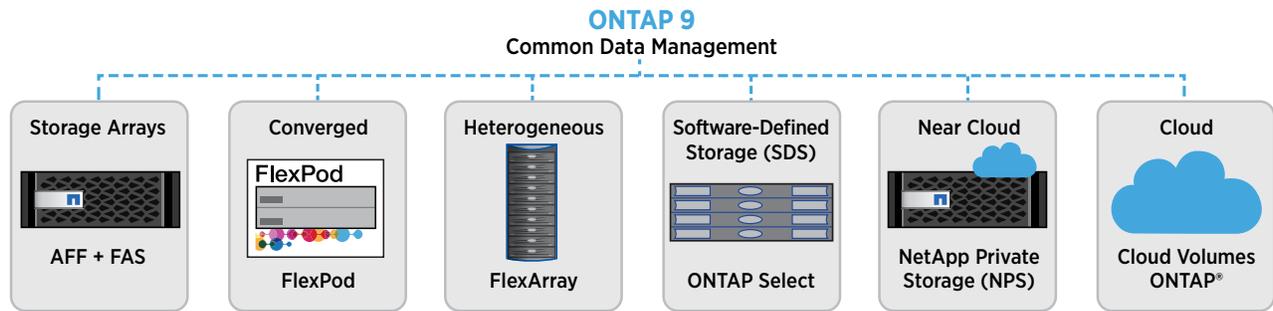


Figure 2) Standardize data management across architectures with a rich set of enterprise data services.

administrative overhead by up to 60% by eliminating retraining.

- Get built-in investment protection with the ability to convert your FAS2650 and FAS2620 systems to an external disk shelf when you upgrade to larger NetApp systems.

You can also build a foundation of a Data Fabric across flash, disk, and cloud. Move your data to where it's needed and place it on the storage environment that delivers the best combination of flash performance, storage capacity, and cost efficiency. Organizations are increasingly turning to the cloud to be more responsive to user needs. If your plans include the cloud, now or in the future, the FAS2600 running ONTAP is a great choice.

NetApp offers a number of options for extending your FAS2600 to the hybrid cloud with Amazon Web Services (AWS), Microsoft Azure, Google Cloud Platform (GCP), and other leading cloud providers. Options include:

- Easily burst capacity to public clouds without typical capex constraints with NetApp Cloud Volumes Service, the first enterprise-class, cloud-native file service for AWS and GCP, or Azure NetApp Files for Microsoft Azure. Ideal for data-intensive workloads such as analytics and DevOps, these cloud data services combine elastic, on-demand storage as a service from NetApp with ONTAP data management in a fully managed offering.
- For those seeking advanced data services for cloud block or object storage services such as AWS EBS or S3, or Azure storage, Cloud Volumes ONTAP provides data management between your on-premises environment and the public cloud with a single, common view. Running in AWS or Azure as an on-demand instance, Cloud Volumes ONTAP provides the storage efficiency, availability, and scalability of ONTAP software to allow easy movement of data between your on-premises FAS2600 and AWS or Azure storage environment with NetApp SnapMirror® data replication software.
- For organizations that need an enterprise-class hybrid cloud with data governance and security, the FAS2600 can be used in a NetApp Private Storage (NPS) for Cloud solution. With NPS for Cloud, you can directly connect to multiple clouds by using a private, high-bandwidth, low-latency connection. Connect to industry-leading clouds such as AWS, Microsoft

Azure, or IBM Cloud and switch between them at any time, all while maintaining complete control of your data on your dedicated, private FAS2600.

With best-in-class data management and control for the hybrid cloud, NetApp cloud solutions enable seamless movement of data into and out of the cloud.

Visit netapp.com/cloud to find out more about our full range of cloud offerings.

Choosing the Right System

NetApp offers two systems in the FAS2600 family to help you find the balance of price, performance, capacity, and features that best fits your needs.

FAS2650

Equipped for higher performance needs, with space for up to 24 internal SFF drives and expansion up to a total of 144 drives, the FAS2650 is a great fit for:

- Midsize organizations and distributed sites of larger organizations
- Windows applications and virtual server consolidation with multiple workloads
- Customers who require higher performance, I/O flexibility, and investment protection for future growth

FAS2620

Geared toward value-oriented, larger capacity deployments, with space for up to 12 internal LFF drives and expansion up to a total of 144 drives, the FAS2620 is a good fit for:

- Customers who require cost-effective larger capacity for secondary workloads and backup targets
- Smaller organizations, remote offices, and local storage
- Customers who want I/O flexibility and investment protection for future growth
- Consolidating virtualized environments with a small number of Windows applications or general file-serving workloads

Get It Right from the Start Using NetApp Expertise

Whether you're planning your next-generation data center, need specialized know-how for a hybrid cloud environment, or want to optimize the operational efficiency of your existing infrastructure, we have the expertise. NetApp Services and our certified partners can help you navigate your digital transformation to successfully create, deliver, and consume data services that power your business. Learn more at netapp.com/services

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

Table 1) FAS2600 series overview.

Specifications per HA Pair		
	FAS2650	FAS2620
Maximum raw capacity ¹	1243TB	1440TB
Maximum drives	144	144
Controller form factor	2U/24 internal drives	2U/12 internal drives
OS version	ONTAP 9.1 and later	ONTAP 9.1 and later
Shelves and media	See the Shelves and Media page ¹ on NetApp.com for current information.	
Storage protocols supported	FC, FCoE, iSCSI, NFS, pNFS, CIFS/SMB	FC, FCoE, iSCSI, NFS, pNFS, CIFS/SMB

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

¹ Maximum raw capacity depends on the drive offerings. See the Shelves and Media page on NetApp.com (netapp.com/us/products/storage-systems/disk-shelves-and-storage-media/index.aspx) for current information.

Table 2) Specifications for scale-out configurations (hybrid and disk-only configurations).

	FAS2650	FAS2620
NAS scale-out	1-24 nodes (12 HA pairs)	1-24 nodes (12 HA pairs)
SAN scale-out	1-12 nodes (6 HA pairs)	1-12 nodes (6 HA pairs)
Maximum drives	1728	1728
Maximum raw capacity	15.OPB	17.IPB

FAS2600 Series Software

The ONTAP 9 Base Bundle includes a set of software products that deliver leading data management, storage efficiency, data protection, and high performance. The optional Premium Bundle and extended-value software products provide advanced capabilities, including instant cloning, data replication, application-aware backup and recovery, NetApp Volume Encryption, and data retention.

Table 3) FAS2600 series software.

Software included in ONTAP 9 Base Bundle	<p>The Base Bundle includes the following NetApp technologies:</p> <ul style="list-style-type: none"> Storage protocols: All supported data protocol licenses (FC, FCoE, iSCSI, NFS, pNFS, CIFS/SMB) Efficiency: NetApp FlexVol®, deduplication, compression, compaction, and thin provisioning Availability: Multipath I/O Data protection: RAID-TEC, RAID DP®, and Snapshot Performance: Adaptive QoS Scalable NAS container: FlexGroup Management: OnCommand System Manager and OnCommand Unified Manager
Software included in ONTAP 9 Premium Bundle (optional)	<p>To add capabilities onto the Base Bundle, the optional Premium Bundle includes the following NetApp technologies:</p> <ul style="list-style-type: none"> FlexClone®: Instant virtual copies with file and volume granularity SnapMirror®: Integrated data replication technology for simple, efficient, flexible disaster recovery and backup use cases SnapRestore®: Data recovery software to restore entire Snapshot copies in seconds SnapCenter®: Unified, scalable software and plug-in suite for application-consistent data protection and clone management SnapManager® suite: Application- and virtual machine-aware backup and cloning <p>See NetApp.com for information about additional software available from NetApp.</p>
Extended value software (optional)	<p>Separate optional software, beyond the Base Bundle and Premium Bundle, is also available:</p> <ul style="list-style-type: none"> OnCommand Insight: Infrastructure analytics platform that provides optimization, troubleshooting, monitoring, and cost analysis for your IT infrastructure SnapMirror Synchronous: Synchronous replication for zero data loss protection (RPO=0) FlexCache: Accelerate read performance with cached datasets within a cluster and at remote sites SnapLock®: Compliance software for write once, read many (WORM)-protected file data NetApp Volume Encryption: Granular, volume-level data-at-rest encryption