Datasheet

NetApp FAS2700 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 30% or 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 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® FAS2700 hybrid storage arrays provide more value than other systems in their class. The FAS2700 running the 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 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 FAS2700 is the perfect 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 FAS2700 series offers a powerful range of technologies to help reduce complexity and increase the efficiency of your storage administrators. Your organization can:

- Manage 2x to 3x 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 FAS2700 with nondisruptive operation (NDO) technology lets you dynamically handle more storage tasks during regular work hours without costly interruption to IT.
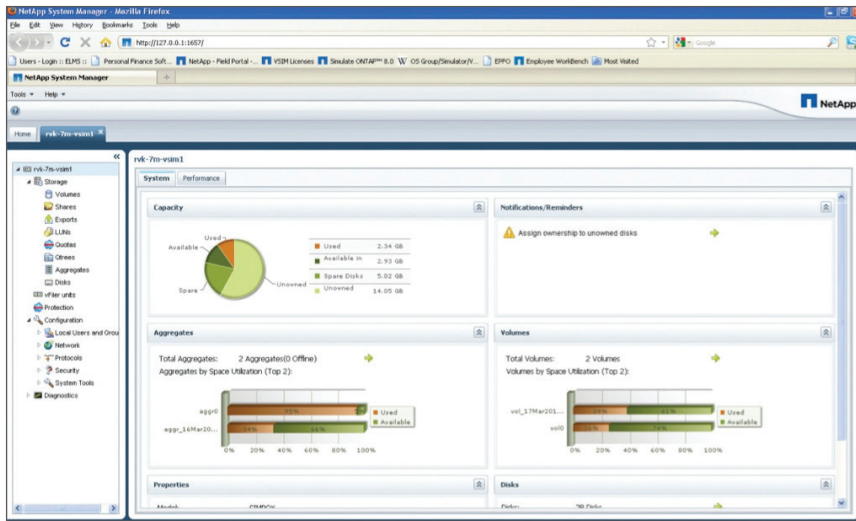
■ NetApp®

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

• Keep operations running at peak efficiency. Optimize your data infrastructure across your hybrid cloud with the predictive analytics and proactive support of NetApp Active IQ®. Plus, leverage the enterprise-grade tools of the NetApp OnCommand® software suite to manage and monitor your data infrastructure.

• 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 FAS2700 system, the optional Premium Bundle and extended value software products offer advanced capabilities such as instant data recovery, instant cloning, data replication, application-aware backup and recovery, Volume Encryption, and data retention.

Delivers the most value for your IT investment
FAS2700 hybrid storage arrays are built to deliver robust capabilities, so your investment supports the broadest possible set of IT needs. Each FAS2700 delivers:

• **Increased price-performance value.** Flash Cache™ intelligent data caching, based on NVMe technology, is integrated into all FAS2700 models to accelerate workloads, reduce latency, and deliver 30% or more performance compared to the previous FAS2600 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 FAS2700 supports a broader set of applications with your choice of eight flexible, unified target adapters (UTA2s) or eight 10GBase-T ports, as well as four 10GbE ports.

• **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.

• **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 FAS2700 series provides 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 administrative overhead by up to 60% by eliminating retraining.

• Get built-in investment protection with the ability to convert your FAS2750 and FAS2720 systems to an external disk shelf when you upgrade to larger NetApp systems.

ONTAP 9
Common Data Management

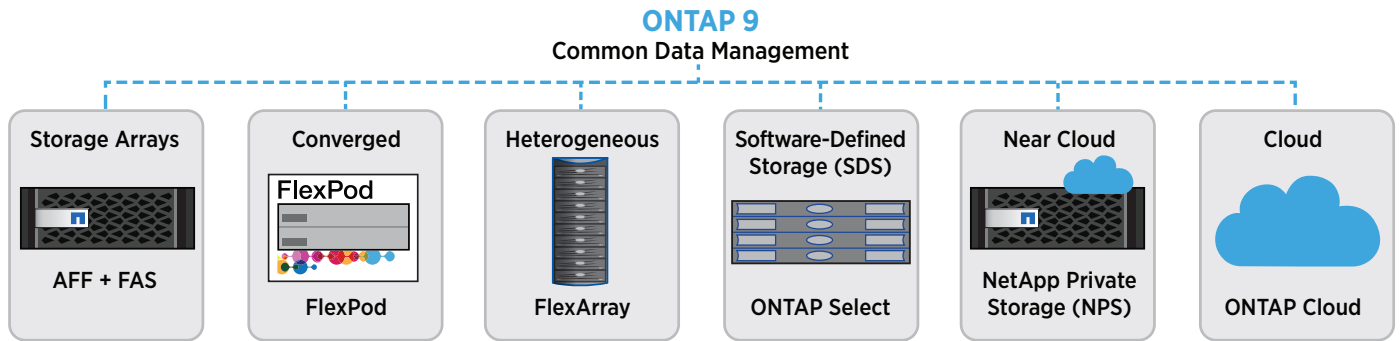| Storage Arrays	Converged	Heterogeneous	Software-Defined Storage (SDS)	Near Cloud	Cloud
AFF + FAS	FlexPod	FlexArray	ONTAP Select	NetApp Private Storage (NPS)	ONTAP Cloud

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

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 FAS2700 running ONTAP is a great choice.

The FAS2700 extends the reach of your business by connecting with cloud services, including:

- Move data in and out of public clouds while leveraging advanced data services that are common between your on-premises and cloud environments with NetApp ONTAP Cloud.
- Accelerate your workloads, including analytics and DevOps in the cloud, with NetApp Cloud Volumes, the first enterprise-class native file service available in major hyperscalers.
- Get the flexibility of cloud compute with the data governance and security of private storage using NetApp Private Storage for Cloud.

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 FAS2700 family to help you find the balance of price, performance, capacity, and features that best fits your needs.

FAS2750
Equipped for higher performance needs, with space for up to 24 internal SFF drives and expansion up to a total of 144 drives, the FAS2750 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

FAS2720
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 FAS2720 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) FAS2700 series overview.

Specifications per HA Pair	FAS2750	FAS2720
Maximum raw capacity[1]	1243TB	1440TB
Maximum drives	144	144
Controller form factor	2U/24 drives	2U/12 drives
ECC memory	64GB	64GB
Onboard NetApp Flash Cache based on NVMe technology	1TB	1TB
Maximum NetApp Flash Pool™	24TB	24TB
NVMEM/NVRAM	8GB	8GB
Onboard I/O, choice of: Unified configuration:[2] UTA2 (8Gb FC/16GbFC/FCoE/10GbE/1GbE) or Ethernet configuration:[3] 10GBase-T (10GbE, 1GbE)	8[2,3]	8[2,3]
Onboard I/O: 10GbE	4	4
Onboard I/O: 12Gb SAS	4	4
OS version	ONTAP 9.4 and later	ONTAP 9.4 and later
Shelves and media	See the Shelves and Media page[1] on NetApp.com for the most current information.	
Storage protocols supported	FC, FCoE, iSCSI, NFS, pNFS, CIFS/SMB	FC, FCoE, iSCSI, NFS, pNFS, CIFS/SMB
Host/client operating systems supported	Windows 2000, Windows Server 2003, Windows Server 2008, Windows Server 2012, Windows Server 2016, Windows XP, Linux, Oracle Solaris, IBM AIX, HP-UX, Apple Mac OS, VMware ESX	

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 the most current information.
2. Unified configuration: Onboard UTA2 ports for FAS2750 and FAS2720 can be configured as either an 8Gb/16Gb FC port pair or a 10GbE port pair and mixed combinations. Also, GbE supported with SFP+ modules X6567-R6 for optical and X6568-R6 for RJ45.
3. Ethernet configuration: Onboard 10GBase-T ports for FAS2750 and FAS2720 will perform at 10GbE and 1GbE speeds. Supported protocols are SMB, NFS, and iSCSI. FCoE is not supported in Ethernet configuration.

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

	FAS2750	FAS2720
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	15.0PB	17.1PB
Maximum onboard Flash Cache based on NVMe technology	12TB	12TB
Maximum Flash Pool	288TB	288TB
Maximum ECC memory	768GB	768GB
Cluster interconnect	10GbE: supported using either 10GbE or UTA2 ports for maximum flexibility	10GbE: supported using either 10GbE or UTA2 ports for maximum flexibility

FAS2700 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, Volume Encryption, and data retention.

Table 3) FAS2700 series software.

Software included in ONTAP 9 Base Bundle	The Base Bundle includes the following NetApp technologies:
	• 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)	To add capabilities onto the Base Bundle, the optional Premium Bundle includes the following NetApp technologies: • 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 See NetApp.com for information about additional software available from NetApp.
Extended value software (optional)	Separate optional software, beyond the Base Bundle and Premium Bundle, is also available: • OnCommand Insight: iinfrastructure analytics platform that provides optimization, troubleshooting, monitoring, and cost analysis for your IT infrastructure • SnapLock®: compliance software for write once, read many (WORM)–protected file data • Volume Encryption: granular, volume-level data-at-rest encryption