Datasheet

NetApp FAS2500 Series

Simplify your storage with leading data management

Key Benefits

Simplifies Storage Operations

- Goes from initial power-up to serving data in under 10 minutes
- Handles complicated management tasks with the click of a button
- Allows you to upgrade software and add or retire storage with zero downtime

Delivers Best Value for Your IT Investment

- Serves SAN and NAS workloads with advanced unified architecture
- Meets more business needs with best-in-class data management
- Achieves better priceperformance with up to 20x more flash than previous generation
- Increases return on investment with enhanced storage efficiencies

Grows with Your Changing Needs

- Lets you start small and grow big, invest in what you need, and add without disruption
- 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, recently there is flash and cloud adoption to consider. These challenges, coupled with the increasing complexity of your Microsoft Windows, VMware, or server virtualization environment, can quickly eat your budget and affect the productivity of your staff.

The Solution

Hybrid storage with best-in-class data management
Designed to support more of your IT needs, NetApp® FAS2500 hybrid storage arrays provide more value for your money than other systems in their class. FAS2500 running the NetApp ONTAP® storage software simplifies the task of managing growth and complexity by providing support for a broader range of workloads, along with seamless scaling of performance and capacity.

And with proven integration with AFF all-flash arrays and the cloud, you can build a foundation for a data fabric that leverages flash acceleration and public 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, FAS2500 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 FAS2500 series offers a powerful range of technologies to help reduce complexity and increase the efficiency of your storage administrators. Your organization can:

- Go from initial power-up to serving data in under 10 minutes by using the System Setup utility. The updated NetApp OnCommand® suite of software tools lets you handle complicated management tasks with the click of a button.
- Manage 2x to 3x more storage. Leading integration with key business applications helps administrators to be more efficient.
- Upgrade software and add or retire storage without downtime. The FAS2500 with non-disruptive operation (NDO) technology lets you dynamically handle more storage tasks during regular work hours without costly interruption to IT.
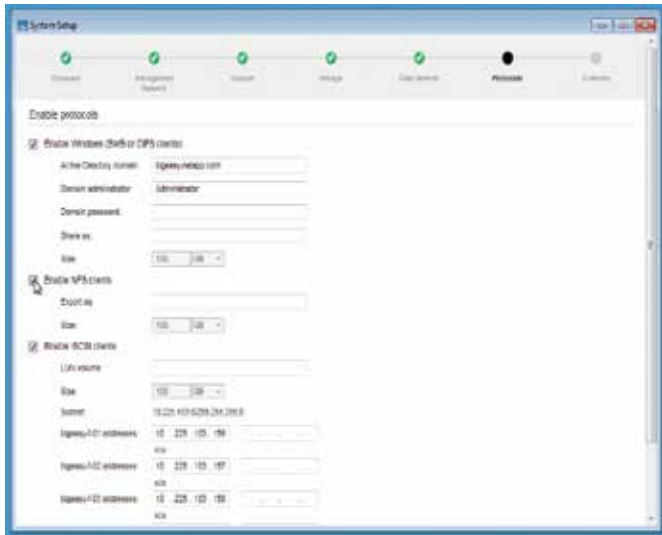
■ NetApp®

Figure 1) Quick and easy setup of FAS2500 systems with the System Setup utility.

- Keep operations running at peak efficiency. You can easily tune and troubleshoot your storage environment with OnCommand management software. And quickly resolve issues with proactive service diagnostics.
- Protect your critical data more efficiently with integrated data protection by using NetApp technologies such as RAID-TEC™ (triple-parity), RAID DP®, and Snapshot®.

System Setup is an intuitive GUI-based utility that dramatically simplifies the setup and provisioning of your FAS2500 systems; now it takes just minutes. It automatically discovers your new system and uses a wizard process that provides recommended defaults for optimal system utilization and performance. OnCommand System Manager is a simple but powerful browser-based management tool to simplify ongoing management and administration.

In addition to the standard set of powerful software that comes with every FAS2500 system, the optional extended-value software products offer advanced capabilities such as instant data recovery, instant cloning, data replication, disk-to-disk backup, and application-aware backup and recovery.

Delivers the most value for your IT investment
FAS2500 hybrid storage arrays are built to deliver robust capabilities, so your investment supports the broadest possible set of IT needs. Every system includes unified support for NAS and SAN workloads and can be configured as a hybrid, even an all-flash, system to meet specific price-performance and latency goals. In addition, each FAS2500 delivers:

- **Increased price/performance value.** Leverage the industry's most efficient hybrid flash technology, increasing usable capacity by 48% and accelerating workloads by up to 46%, compared with hard-disk-only systems.

- **Best-in-class storage efficiency.** Enhanced compression delivers efficiency and storage savings without compromising performance. Along with deduplication, compaction (new), thin provisioning, and other data reduction technologies, these features deliver leading storage efficiency.
- **Advanced IT integration options.** FAS2500 supports a broader set of applications and delivers 2x the connectivity than the previous generation with flexible, onboard unified target adapters (UTA2s).
- **Expanded enterprise-class data management.** Access NDO, QoS, and superior virtualization integration, which are usually offered only in the highest end systems, to meet complicated IT needs.

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 FAS2500 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.
- Scale out up to 8 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 FAS2552 and FAS2554 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 and to deliver a level of off-site data protection that up to now has been outside their budgets. If your plans include the cloud, now or in the future, FAS2500 running ONTAP is a great choice.

Your storage can become part of a private cloud by using options such as OpenStack or Microsoft Private Cloud. The FAS2500 extends the reach of your business by connecting with cloud services, including:

- Hundreds of cloud service providers that have built their services by using NetApp
- NetApp ONTAP Cloud, which is ONTAP software running in the cloud
- Our suite of NetApp Private Storage for Cloud offerings, delivering superior I/O performance and data security

Figure 2) You don't need to be an expert to configure your storage with the simple, easy-to-use NetApp System Manager console.

With best-in-class data management and control for the hybrid cloud, NetApp cloud solutions enable seamless movement of data in 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 three systems in the FAS2500 family to help you find the balance of price, performance, capacity, and features that best fits your needs.

FAS2554
Equipped for higher capacity needs, the FAS2554 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 cost-effective larger capacity, I/O flexibility, and investment protection for future growth

FAS2552
Equipped for higher performance needs, the FAS2552 is a great fit for:

• Midsize organizations and distributed sites of larger organizations that require a smaller form factor and lower power consumption
• Windows applications and virtual server consolidation with multiple workloads
• Customers who require higher performance, I/O flexibility, and investment protection for future growth

FAS2520
Geared toward value-oriented deployments, the FAS2520 is a good fit for:

• Smaller organizations, remote offices, and local storage
• Consolidating virtualized environments with a small number of Windows applications or general file-serving workloads
• Customers who need a powerful system at a competitive price

Get it Right from the Start using NetApp Expertise and Tools:
Realize the most out of your investment by engaging professional services experts from NetApp or our Services Certified partners. When migrating 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.

About NetApp
Leading organizations worldwide count on NetApp for software, systems and services to manage and store their data. Customers value our teamwork, expertise and passion for helping them succeed now and into the future.
www.netapp.com

FAS2500 Series Overview

Specifications per HA Pair

	FAS2554	FAS2552	FAS2520
Maximum raw capacity[1]	1152TB	1052TB	672TB
Maximum drives	144	144	84
Controller form factor	4U/24 drives	2U/24 drives	2U/12 drives
ECC memory	36GB	36GB	36GB
Maximum NetApp Flash Pool™	16TB[2]	16TB[2]	16TB[2]
NVMEM/NVRAM	4GB	4GB	4GB
Onboard I/O: UTA2 (8Gb FC/16Gb FC/ FCoE/10GbE/1GbE[5])	8[3]	8[3]	N/A
Onboard I/O:10GBASE-T	N/A	N/A	8[4]
Onboard I/O: GbE	4	4	4
Onboard I/O: 6Gb SAS	4	4	4
OS version	ONTAP 8.2.2 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	iSCSI, NFS, pNFS, CIFS/SMB
Host/client operating systems supported	Windows 2000, Windows Server 2003, Windows Server 2008, Windows Server 2012, 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. 16TB for ONTAP 8.3 and later, 4TB for ONTAP 8.2 (cluster mode and 7-mode).
3. FAS2554 and FAS2552 on-board ports can be configured as either a 8Gb/16Gb FC port pair or a 10GbE port pair and mixed combinations.
4. FAS2520 on-board ports are only 10GBASE-T that can autorange to 1GbE.
5. 1GbE optical and copper SFP support starts with the release of Data ONTAP 8.3.1RC. 1GbE is also supported on ONTAP 8.2.4 or later for 7-mode systems.

Specifications for Scale-Out Configurations (Hybrid and Disk-Only Configurations)

	FAS2554	FAS2552	FAS2520
NAS/SAN scale-out	1–8 nodes (4 HA pairs)	1–8 nodes (4 HA pairs)	1–4 nodes (2 HA pairs)
Maximum drives	576	576	168
Maximum raw capacity	4.6PB	4.2PB	1.3PB
Maximum Flash Pool	64TB	64TB	32TB
Maximum memory	144GB	144GB	72GB
Cluster interconnect	10GbE	10GbE	10GBASE-T

FAS2500 Series Software

Included software	**Efficiency:** NetApp FlexVol®, deduplication, compression, compaction, and thin provisioning **Availability:** multipath I/O **Data protection:** RAID-TEC, RAID DP, and Snapshot **Performance:** NetApp storage quality of service (QoS) **Management:** System Setup, OnCommand System Manager, and OnCommand Unified Manager **Storage protocols:** all supported data protocol licenses included
Extended value software (optional)	• **OnCommand** suite of management software: Provides the visibility and control to help maximize system utilization, meet storage SLAs, minimize risks, and boost performance. • **SnapLock**®: compliance software for write once, read many (WORM) protected data A Premium Bundle can be purchased with all FAS2500 systems and includes the following NetApp technology: • **SnapRestore**®: restore entire Snapshot copies in seconds • **SnapMirror**®: simple, efficient, flexible disaster recovery • **FlexClone**®: instant virtual copies of databases or virtual machines • **SnapManager**® and **SnapCenter**® software: application- and virtual machine–aware backup, recovery, and cloning • **SnapVault**®: disk-based backup software for complete backups and online archives to primary or secondary storage in minutes instead of hours or days See NetApp.com for information on additional software available from NetApp.