NetApp
Go further, faster

Systems

NetApp Fabric-Attached Storage Systems

Maximize data availability and protection with the industry's broadest compatible family of storage systems

THE CHALLENGE

Maximizing your business advantage
Fast, reliable access to an increasing volume of business information is essential to the competitiveness and success of your enterprise whatever its size. When you make sure that high-value data and content are available whenever and wherever they are needed, you increase productivity by enabling managers, employees, and partners to make faster decisions. You also enable better engagement with customers, clients, and prospects. To provide around-the-clock and around-the-world information availability, you need efficient and effective data management.

Key data management challenges include:

- How do you consolidate data demanded by many users and multiple applications on a variety of network storage systems?
- How can you manage data stored throughout your organization, whether in data centers or at remote locations?
- How can you be sure that your data is available in the event of a hardware problem, human error, or disaster?
- How can you protect and secure your data against loss, unauthorized access, or noncompliant changes?

THE SOLUTION

NetApp's family of fabric-attached storage
You can reduce costs and complexity, minimize risks, and control change by simplifying data management with NetApp® fabric-attached storage (FAS) systems. Our FAS product line provides storage solutions for a broad range of needs, from your remote office applications to your largest enterprise applications. Regardless of the size of your enterprise, we have a storage solution that will fit your needs. For your large-scale data consolidations and high-performance applications, we offer the high-end FAS6000 series. For exceptional price-performance value, we offer the midrange FAS3100 series. And for your remote offices, we offer the FAS2000 series, which you can also use as primary storage in midsize enterprises.

Figure 1) FAS2040 system.

CONSOLIDATE A VARIETY OF WORKLOADS

For storage consolidation, our systems are extremely versatile. You can simultaneously access file- and block-level application data with concurrent connections to Fibre Channel (FC) and IP networks. With NetApp, you can consolidate and serve data for a wide variety of workloads, including:

• Business applications
• E-mail
• Enterprise content management
• Technical applications
• Web content
• Home directories

Our FAS systems provide scalable, high-availability storage for your Windows®, UNIX®, and Linux® servers. You can access your data over FC and iSCSI storage area networks (SANs) and access files using standard protocols for network-attached storage (NAS). Because our systems use both high-performance and high-density disk drives, in either homogeneous or mixed storage configurations, you get a choice of tiered storage options. When it comes to storage consolidation, you can use our systems to span both SAN and NAS environments and meet your primary and secondary storage needs.

DEPLOY WITH CONFIDENCE

You can be confident in your FAS systems, which we rigorously test with switches, directors, and adapters from industry-leading Fibre Channel equipment providers. We also test our systems with application software that relies on FC SAN-based storage. To maximize FC SAN throughput, we also enable 8Gb per second Fibre Channel connectivity.

PROVISION STORAGE QUICKLY

You can provision and manage storage more quickly with Data ONTAP® 7G. All of our FAS systems run the NetApp Data ONTAP operating system, which we optimize for fast, efficient, and reliable data access and retention. With our FlexVol® technology for provisioning and configuring our storage, you can eliminate costly overprovisioning and avoid time-consuming reconfiguration; with a single command, you can dynamically expand or contract LUNs and volumes.

You can extend these storage provisioning capabilities to your databases and applications with our host-based NetApp SnapDrive® software.

We also help you improve application and database development and predeployment testing. Using another Data ONTAP 7G feature, FlexClone®, you can instantaneously create cloned LUNs or volumes without additional storage.

INCREASE DATA PROTECTION AND AVAILABILITY

To provide you with resilient system operation and high data availability, we tightly integrate our hardware systems with the Data ONTAP 7G operating system. Our FAS systems use redundant, hot-swappable components, and with our patented double-parity RAID-DP® (our high-performance RAID 6 application), you get superior data protection with little or no performance loss.

You can rely on our SnapSuite™ products to deliver the application-level availability that your business requires for 24x7 operation. NetApp Snapshot™ technology is uniquely suited to protect your production data. We provide up to 255 data-in-place, point-in-time images per LUN or file system. You can recover a single file or a full data set nearly instantaneously, and with our technology, your performance overhead nearly disappears. SnapMirror® utilizes our

Snapshot technology to provide you with incremental block-level synchronous and asynchronous replication. SnapVault®, in contrast, uses our Snapshot technology to perform block-level incremental backups of your data to another system. You can be assured of consistent backup images and application-level recovery in minutes when you use our host-based SnapManager® software, which integrates Snapshot management with your applications.

TIER TO FIT YOUR NEEDS

We help keep your business operations online and productive by providing the data availability and data access you need. Our wide range of versatile, tiered-storage systems are the ideal building blocks for your open systems networked storage.

Our FAS systems offer:

- Superior management simplicity
- Application integration for high availability
- Enterprise-class reliability
- Outstanding scalability

Ultimate scalability, versatility, and availability: NetApp FAS6000 series

You get the ultimate in scalability, versatility, and availability when you use our flagship FAS6000 series. You can configure more than 1100TB of raw storage capacity and up to 1,176 hard disk drives with the FAS6080 system. Our high-bandwidth controller design provides I/O expandability up to 80 Fibre Channel ports or 76 Ethernet ports including support for both 8Gb Fibre Channel and 10Gb Ethernet. With our FAS6000 series you can efficiently consolidate SAN, NAS, primary, and secondary storage on a single platform. You can be sure that your critical workloads receive priority service during times of heavy loading with the FlexShare™ feature of our Data ONTAP 7G software.

Studies by Oliver Wyman show that the cost of ownership for NetApp storage systems is substantially lower than that of alternative storage from major vendors. Read the full reports at www.netapp.com/tco.

Blend of price, performance, and scalability: NetApp FAS3100 series

If you are looking for a blend of price, performance, and scalability in a midrange enterprise storage system, our FAS3100 series will deliver the value you need.

Our FAS3100 series offers you exceptional storage value for:

- E-mail
- Databases
- Technical applications
- Business applications
- Large-scale file sharing

You can easily implement tiered storage with the FAS3100 series, which supports both FC and SATA disk drives. You also get integrated FC SAN, IP SAN (iSCSI and FCoE), and NAS storage for more than 800 disk drives in a compact, modular design. With the FAS3100, your system can support as many as 40 Fibre Channel ports or 36 Ethernet ports, including support for both 8Gb Fibre Channel and 10Gb Ethernet.

Best value for midsized enterprises: NetApp FAS2000 series

With our FAS2000 series, you can bring the capabilities of our higher-end FAS systems to departments and remote offices in your distributed enterprise. You will also find that our best-in-class FAS2000 series delivers the value you need for primary storage in a midsized enterprise. With FAS2020, squeeze 12TB into a 2U enclosure with optional external expansion for an additional 56TB of capacity. The FAS2040 scales to a total of 136TB and 136 disk drives. The FAS2050 scales to 104TB and 104 disk drives.
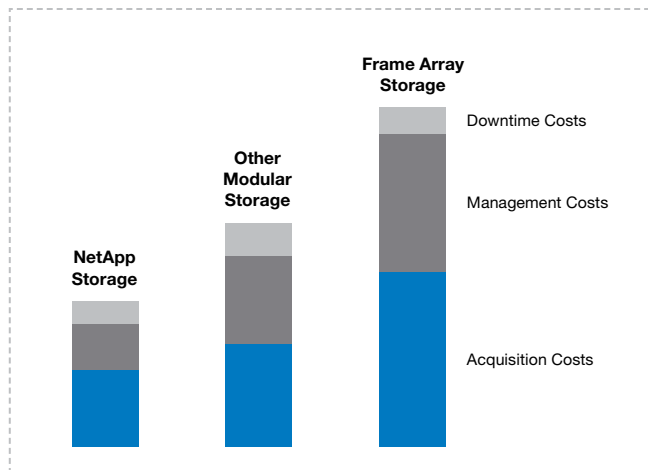
Figure 3) Proven lower TCO.

Studies by Oliver Wyman show that the total cost of ownership for NetApp storage systems is substantially lower than that of storage from other major vendors. Read the full reports at www.netapp.com/tco.

With the versatile FAS2000 series systems you get the advantages of these features and innovations:

- Integrated block- and file-level data access
- Internal serial-attached SCSI (SAS) or SATA disk drive support
- External FC, SAS or SATA expansion
- Intelligent management software
- Onboard remote management

SIMPLIFY DATA MANAGEMENT

We simplify data management and optimize storage utilization by including our Data ONTAP operating system with all NetApp FAS systems. With Data ONTAP you have flexible storage provisioning, superior scalability, and concurrent block and file access. You can also easily integrate Data ONTAP into UNIX, Windows, and Web environments to provide the foundation for an enterprise-wide storage and data infrastructure that supports your mission-critical business applications.

PARTNER FOR SUCCESS

When you partner with our Professional Services and Global Support teams, you gain access to our extensive storage expertise, innovative technologies, and best practices. You can accelerate the return on your infrastructure investments and know that you get the most business benefit from them. We respond quickly to your problems, no matter where in the world they occur, and with one of the most flexible support programs in the industry, you always get just the support you need for your unique IT and business requirements.

Our NetApp ConsultingEdge consulting services help you plan, implement, and optimize your storage infrastructure.

NetApp SupportEdge Premium offers you a hybrid approach to support. It combines expert on-site resources with innovative remote capabilities. SupportEdge Premium services include:

- Hardware and software installation
- System monitoring
- Proactive notification
- Immediate reactive support
- Remote diagnostics
- Remote and on-site repair
- Quarterly storage availability audits
- Software subscription plan

NetApp creates innovative storage and data management solutions that help you accelerate business breakthroughs and achieve outstanding cost efficiency. Discover our passion for helping companies around the world go further, faster at NetApp.com.

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