



NetApp™
Go further, faster



Software

FAS2000 Software Packs

Software packs for your FAS2000 storage system offer exceptional capabilities, value, and simplicity

KEY BENEFITS

Exceptional Value

Take advantage of a robust set of features included with every system, plus economical add-on software packs.

Simplicity

Easy-to-use data management software comes in five simple software packs.

Unmatched capabilities

FAS2000 software packs bring a broad range of proven, compelling, enterprise-class data management capabilities to entry systems.

CHALLENGES

Powerful capabilities for data protection and data management are critical on all storage systems. However, entry-level system environments also require simplicity of ordering, installation, and management.

THE SOLUTION:

NETAPP FAS2000 SOFTWARE PACKS

NetApp delivers data management software using a robust set of capabilities that are included with every FAS2000 system, plus optional add-on software packs for additional capabilities. With this approach, FAS2000 software packs provide the flexibility to take advantage of breakthrough capabilities, while maximizing value with a very economical solution.

Base software provides unique data protection capabilities and superior storage utilization

Every FAS2000 system comes standard with the Data ONTAP® 7G operating system and an unmatched set of data management features:

- NetApp® Snapshot™: A point-in-time copy solution that enables rapid data restore, requires only a minimal amount of incremental disk space, and uniquely has no performance impact

- Storage pooling, which coupled with thin provisioning enables storage utilization up to 2X of traditional approaches and eliminates performance bottlenecks by distributing volumes over many spindles
- Thin provisioning, whereby many applications share a common pool of free space on demand, enabling increased storage utilization
- Ability to resize volumes on the fly
- Unique low-overhead double-parity RAID-DP®, which provides protection against two failures in a RAID group
- Flexibility to store only one copy of each unique data object through deduplication
- Disk mirroring
- Workload prioritization, making sure higher priority workloads get more storage system resources
- SAN protocols iSCSI and FCP to support FC SAN and/or IP SAN
- Integrated support for tiered storage, including near-line
- System administration using a Windows® OS-style user interface for Windows server system administrators or a command-line interface
- Comprehensive monitoring of system health and performance

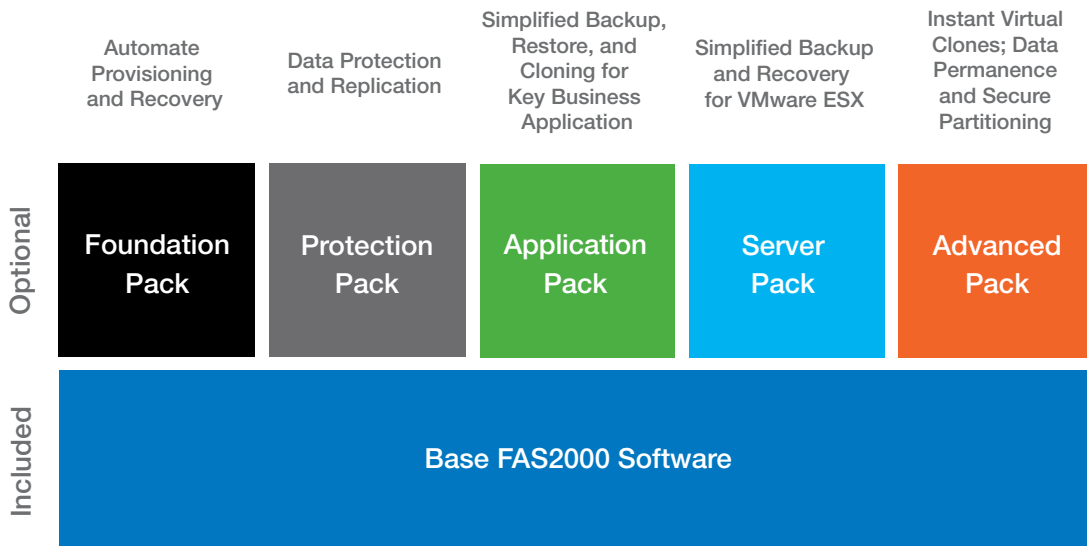


Figure 1) FAS2000 software packs.

In addition to this powerful set of base capabilities provided that are included with every FAS2000 system, optional add-on software packs deliver additional capabilities.

Foundation Pack provides automated provisioning and recovery

Foundation Pack provides key capabilities for primary storage across all key solutions and automating provisioning and local backup/restoration of a NetApp environment.

- Restore volumes or file systems of any size in seconds using Snapshot copies.
- Implement policy-based automated provisioning, enabling storage to be provisioned much faster than with manual provisioning and with fewer errors.
- Prepare primary storage for automated disk-to-disk backup. By copying only the individual data blocks that have changed since the last backup, both storage capacity and network bandwidth requirements are minimized compared to other approaches.

Protection Pack: Fast, simple, reliable data protection

Protection Pack provides powerful capabilities for secondary storage, across all business and technical applications, and for infrastructure-level business continuance and backup/restore solutions.

- Replicate data across a global network to enable disaster recovery solutions or to centralize tape-based backups from multiple data centers.
- Simplify replication-based activities using policy-based automation to automatically discover and protect new data. Simplifies management and makes sure that all data is protected.
- Flexibly meet RTO/RPO requirements using a replication solution that is simple to deploy and manage.
- Restore data from a secondary system in seconds.
- Improve backup and restore speeds up to 92% compared to tape-based solutions.
- Minimize both bandwidth storage capacity and network bandwidth requirements, as only changed blocks are backed up or replicated.

NetApp provides the only single-vendor data protection solution fully integrated into the storage system.

Application Pack: Integrated data management from application toolsets

NetApp server-based software integrates with key business applications in order to simplify backup, recovery, replication, and cloning of application data.

- Available for SAP®, Oracle®, Microsoft® Exchange, Microsoft SQL Server®, Microsoft SharePoint® Server, and VMware® ESX
- For individual application solutions and for consolidations that include one or more of these business applications
- Fast, simple, automated backup, recovery, and cloning of application-consistent data
- Enable self-service data management for routine data management tasks, thus improving productivity and efficiency across the organization
- Add storage capacity or resize volumes without interrupting applications
- Enable Exchange Server administrators to recover individual messages, attachments, or mailboxes in minutes instead of hours or days of manual effort

With these capabilities of Application Pack, organizations can reduce costs and increase operational efficiencies by integrating data management into other application management processes.



Server Pack: Simplified backup and recovery for virtual server environments

Server Pack is specifically for VMware virtual server environments. It is a subset of software also available in the Application Pack.

- Fast, simple, automated backup and recovery of VMware virtual server environments
- Enable self-service data management for routine data management tasks, thus improving productivity and efficiency across the organization

These capabilities reduce costs and increase organizational efficiencies in virtualized environments.

Advanced Pack: Advanced data management and compliance

Advanced Pack offers a range of additional advanced data management capabilities.

- Generate instant virtual clones of production data, while requiring minimal incremental disk space. Accelerates test/dev and QA activities and reduces costs.
- Securely partition storage, supporting consolidations and/or multitenant environments.
- Provide flexibility to make sure of data permanence for primary or secondary storage in order to comply with various industry, corporate, or government regulations.
- Enable flexible retention policies for archival and compliance solutions to meet internal and external requirements.

ADDITIONAL NETAPP SOFTWARE FOR FAS2000

In addition to FAS2000 software packs, NetApp also offers various other capabilities through individual optional products:

- NAS protocols: NFS and CIFS are available for file-based workloads.
- Validation of data integrity in Oracle environments.

Table 1) FAS software pack components and functions.

FAS2000 SOFTWARE PACK	COMPONENTS	FUNCTIONS
Included system software	Snapshot	Point-in-time virtual copy
	FlexVol®	Storage pooling
	Thin Provisioning	“Just-in-time” storage provisioning
	RAID-DP	Low-overhead double-parity RAID (RAID 6)
	FlexShare®	Workload prioritization
	Deduplication	Store only one copy of each unique data object
	Operations Manager	Comprehensive health and performance monitoring
	NearStore®	Integrated near-line storage
	SyncMirror®	Local disk mirroring
	System Manager	Windows OS–based management tool
	FilerView®	CLI-based management tool
	FC protocol	Support for FC SAN
	iSCSI protocol	Support for IP SAN
	HTTP protocol	HTTP access
Foundation Pack	SnapRestore®	File/volume restore from Snapshot copies
	SnapVault® Primary	Enable disk-to-disk backup from primary system
	Provisioning Manager	Automates provisioning workflow
Protection Pack	SnapMirror®	Remote replication
	SnapVault Secondary	Enable disk-to-disk backup on secondary system
	Protection Manager	Policy-based data protection
Application Pack	SnapManager® (for Microsoft Exchange, Microsoft SharePoint Server, Microsoft SQL Server, Oracle, SAP, Virtual Infrastructure)	Enable and streamline application-aware backup, recovery, and cloning
	SnapDrive® (for Windows, UNIX®)	Automated provisioning; makes sure of host-consistent Snapshot copies
	Single Mailbox Recovery	Enable recovery of messages, attachments, and mailboxes for Microsoft Exchange
	NetApp DSM	Load-balancing and failover capabilities
Server Pack	SnapManager for Virtual Infrastructure	Simple, policy-based backup and recovery of virtual machines
	SnapDrive (for Windows, UNIX)	Automated provisioning; makes sure of host-consistent Snapshot copies
	NetApp DSM	Load-balancing and failover capabilities
Advanced Pack	FlexClone®	Instant virtual clones of production data
	MultiStore®	Secure partitioning and storage consolidation
	SnapLock® Compliance	Data permanence for government requirements
	SnapLock Enterprise	Data permanence for corporate requirements

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

© 2009 NetApp. All rights reserved. Specifications are subject to change without notice. NetApp, the NetApp logo, Go further, faster, Data ONTAP, FilerView, FlexClone, FlexShare, FlexVol, MultiStore, NearStore, RAID-DP, SnapDrive, SnapLock, SnapVault, MultiStore, SnapMirror, SnapRestore, Snapshot, SnapVault, and SyncMirror are trademarks or registered trademarks of NetApp, Inc. in the United States and/or other countries. Microsoft, Windows, SharePoint, and SQL Server are registered trademarks of Microsoft Corporation. Oracle is a registered trademark of Oracle Corporation. SAP is a registered trademark of SAP AG. VMware is a registered trademark of VMware, Inc. UNIX is a registered trademark of The Open Group. All other brands or products are trademarks or registered trademarks of their respective holders and should be treated as such. DS-2917-0309



www.netapp.com