Throughout its life, different data requires different levels of performance, availability, protection and retention. Initial creation and usage requires high-speed storage with high levels of protection to meet availability requirements and service levels. Over time, data becomes less critical and is used less frequently. As these changes occur, data can be moved to different classes of storage that provide appropriate levels of availability, capacity, cost, performance, and protection, allowing retention to be managed in stages across the entire lifecycle. It is critical that any migration of data be done transparently so that important business processes are not interrupted.

Eventually, data is no longer used. Traditionally, unused data would either be deleted to save space or stored indefinitely to avoid data loss. However, regulatory requirements, legal exposure, and increasing data volumes are rendering these approaches obsolete.

**VERITAS and NetApp enable customers to manage data through its lifecycle by aligning data to the appropriate storage based on the business value of the data.** The VERITAS and NetAPP solution automatically enforces data management policies across Microsoft® Windows® NTFS, Microsoft Exchange Server, and Network Appliance environments.

Predefined and custom policies enable IT to store data on the most appropriate media while maintaining existing access methods for users and applications. Simply put, IT can store data where desired with minimal impact to users and applications.

The policy-based nature of the solution is ideal for addressing a range of data and storage issues. Predefined templates and custom policies help organize data to:

- Facilitate regulatory compliance
- Manage corporate governance
- Control data growth
- Improve storage efficiency
- Streamline backup and recovery
- Increase utilization of resources
- Reduce time and cost of “e-discovery”

**Regulatory Compliance/Corporate Governance**

Regulatory compliance and corporate governance are key corporate issues that in the next six to 12 months will require solutions. The VERITAS and NetApp solution provides automation, security, reporting, and content index and search tools that facilitate ongoing compliance efforts and reduce the cost of legal “e-discovery” processes.

Automated enforcement of archival policies delivers the reliability and repeatability needed to address regulatory compliance issues such as data retention and deletion. The VERITAS Data Lifecycle Manager software supports NetApp SnapLock™ on NearStore®, as well as other unalterable disk, tape, and optical media, to deliver greater tamper resistance and immutability for sensitive data. Role-based security at the NetApp storage and VERITAS application levels ensures that only certain users have access to specified functions and allows for a system of checks and balances, preventing one person from making wholesale changes to the archive.

The solution allows IT to create a variety of reports for archive access, system events, adherence to published policies, and retention/deletion tracking. Powerful content search and index technology helps produce timely, accurate results that are then easily reviewed, exported to desired media, or disposed.

**Archiving and Compliance Features**

- Company wide content search and index
- Automated data expiration
- Reporting and auditing
- Rules-based administration
- Documented, repeatable processes
- Unalterable media support
- Detailed logging and access tracking
- Administrative search and extraction
- Tracking of multiple versions
- Role-based management
- Windows security support
Optimizing Storage Assets

Intelligently matching data requirements with storage attributes improves utilization of high-performance, high-availability resources by offloading less critical data to slower, less resilient systems. This also minimizes unnecessary copies of data, freeing wasted capacity and streamlining operations such as backup and restore.

Quality of Storage Features

- End-user and application transparency
- Single-instance storage
- Analysis tools
- Disk, tape, and optical media support
- Multiple storage tiers
- SAN support

Integration

Integration with existing infrastructure dramatically reduces the cost and complexity of deploying a data lifecycle management solution.

Integration with VERITAS NetBackup™ and VERITAS Backup Exec™ software allows for the use of backup storage resources, including SAN-attached devices, as part of the Data Lifecycle Manager environment.

This integration enables Data Lifecycle Manager to leverage existing backup hardware, extending data protection investments to address compliance, improve backup/restore times, and enable long-term data retention. In addition, the integration allows customers to apply Data Lifecycle Manager features to existing backup media, indexing their existing backup media for easier restore selection and applying retroactive archive and retention policies.

Data Lifecycle Manager integration with NetApp SnapLock software enables data permanence, safeguarding that data is protected as nonerasable, nonrewritable on either primary (FAS server) or nearline (NearStore) storage systems. Retention dates are also supported, which ensures that information is disposed of at the right time, which in turn reduces liability issues.

VERITAS DATA LIFECYCLE MANAGER

Benefit Summary

- Store data where appropriate without impacting user or application workflow
- Improve performance; move critical, dynamic data to highest performance storage
- Improve uptime; copy most critical data with highest level of protection
- Improve data retention with automated retention and disposal actions to reduce noncompliance risk
- Lower storage TCO per unit of capacity
- Improve hardware utilization
- Enable hardware consolidation
- Improve efficiency of IT management
- Eliminate disk and mailbox quotas

Feature Summary

- Centralized administration
- Distributed environment
- High-availability architecture
- End-user archive/retrieval
- End-user search and access
- Preconfigured and custom policies
- Diverse selection criteria
- Calendar-based scheduling
- Media consolidation
NETAPP NEARSTORE

A disk-based, secondary storage device for enterprise applications, NearStore perfectly complements and dramatically improves existing tape backup, archiving, and data protection schemes by inserting economical and simple-to-use disk-based storage between application storage and tape libraries in a three-tier storage architecture.

Benefit Summary
- Fast online, inexpensive access to data
- Versatile solution for data protection, compliance, and archival
- Easy to install, manage, scale, and support

Feature Summary
- Scalable, fast performance disk storage
- Dual-parity RAID-DP
- Concurrent NAS and SAN operation
- Open protocol data access via CIFS and NFS

NETAPP SNAPLOCK

The NetApp SnapLock software product family delivers high performance and high-security data permanence to disk-based nearline and primary NetApp storage. An integrated element of the proven NetApp Data ONTAP™ operating system, SnapLock software helps ensure the permanence, accuracy, integrity, and security of data by enabling business records to be both unalterable and rapidly accessible online for long periods of time.

Benefit Summary
- Permanent data storage supporting regulatory and corporate requirements
- WORM features with fast, online, inexpensive access to data

Feature Summary
- WORM disk
- Nonerasable, nonrewriteable
- Supports retention periods
- WORM-to-WORM mirroring
- Easy tape backup

TECHNICAL DETAILS

File System Support
- Microsoft Windows 2000 or Windows 2003
- Windows Storage Server
- Windows Server Appliance Kit
- Network Appliance

Messaging Application Support
- Microsoft Exchange Server 5.5, 2000, & 2003
- Microsoft Outlook Web Access 5.5, 2000, & 2003
- Microsoft Outlook 97 or higher

Media Manager Support
- VERITAS NetBackup VMM
- VERITAS Backup Exec ADAMM
- Pegasus Disk Technologies
- Microsoft Removable Storage Manager

Data Protection Product Support
- VERITAS NetBackup
- VERITAS Backup Exec
- VERITAS Volume Replicator
- VERITAS Cluster Server

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Architecture

The Data Lifecycle Manager server controls the file system and Exchange agents. These agents apply policies and communicate with the Data Lifecycle Manager server to enable movement of data among storage resources.

The Data Lifecycle Manager server utilizes Microsoft SQL Server to track configuration information and relational data that matches online access points to NetApp NearStore with SnapLock for WORM and to offline data stores.