

CommVault QiNetix / ILM Overview

May 18, 2006

Summary

- What is ILM?
- Where does it fit?
- One Unified Platform
- One Unified Interface
- Using the best tools
- Key technologies
- Using Tiered Storage effectively

What is ILM?

- SNIA ILM Defined:
 - **Information Lifecycle Management**: the
 - **policies, processes, practices, services** and **tools**
 - used to align the business value of information
 - with the most appropriate and cost effective
 - **infrastructure** from the time information is created
 - through its final disposition. Information is aligned
 - with business requirements through management
 - **policies** and service levels associated with
 - applications, metadata, and data.

What is ILM?

- So, ILM is a set of things you DO, based on organizational decisions about the value of data over time, not a product, no matter what any particular vendor tells you.
- The way you DO, is via software tools.
- The tools you pick, therefore, are rather important.

CommVault sees 6 Key enablers to data management: Where does ILM fit? Everywhere

1. Control growth : Policies, management tools
2. Stabilize backup : processes and tools
3. Manage copies & operations : processes, tools, and decisions
- 4. Initiate tiered storage : cost effective infrastructure**
5. Improve RPO & RTO : practices
6. Reduce cost and complexity : practice, tool choice, processes, infrastructure choices

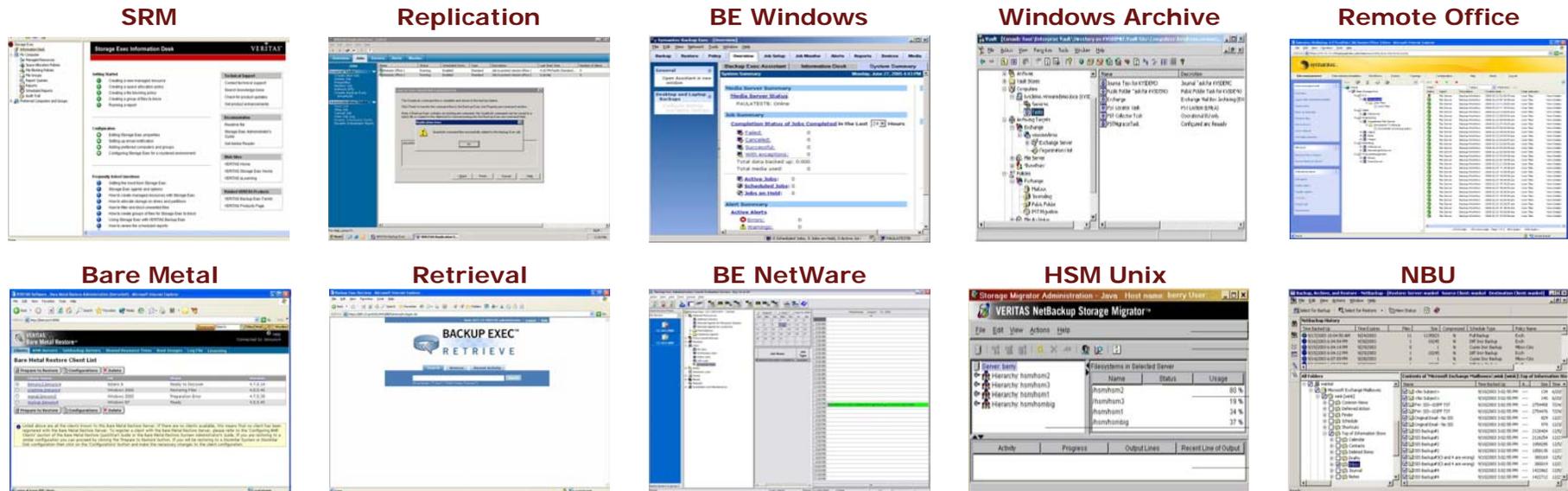
Vendor Response to the challenge

- Many vendors rush to deliver an “answer” to the question of ILM.
- They add it to their existing product line as a new product.

But this only adds another application to the data management nightmare.

The typical response increases cost and complexity!

- Different 'point' products
- Acquired/From different companies
- With little integration



More **TIME** More **\$\$\$\$**

- ⊕ Media ⊕ Infrastructure ⊕ Labor ⊕ Maintenance ⊕
- ⊕ Implementation ⊕ Management ⊕ Support ⊕

CommVault replaces all this with One Unified Platform

SRM

Replication

BE Windows

Windows Archive

Remote Office

Bare Metal

Retrieval

BE NetWare

HSM Univ

NBU

COMMON TECHNOLOGY ENGINE

⊕ metadata ⊕ storage pools ⊕ policies ⊕

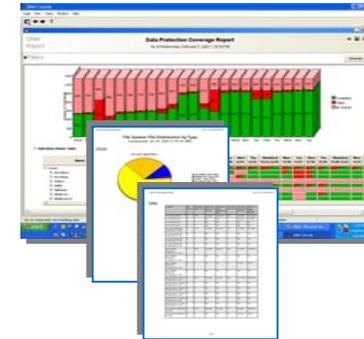
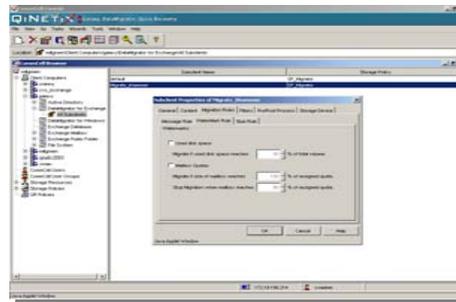
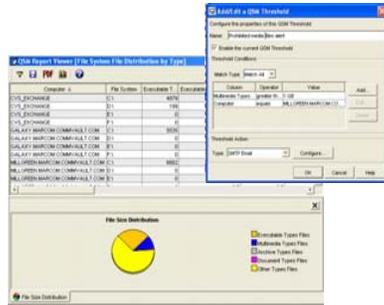
⊕ Enterprise Options ⊕

One Platform for All Tiers

Primary SRM

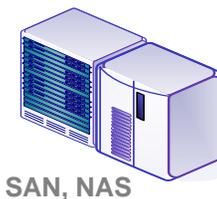
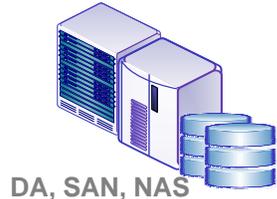
Recovery – Protection - Archive

Secondary SRM



COMMON TECHNOLOGY ENGINE

- ⊕ metadata ⊕ storage pools ⊕ policies ⊕
- ⊕ Enterprise Options ⊕



Application

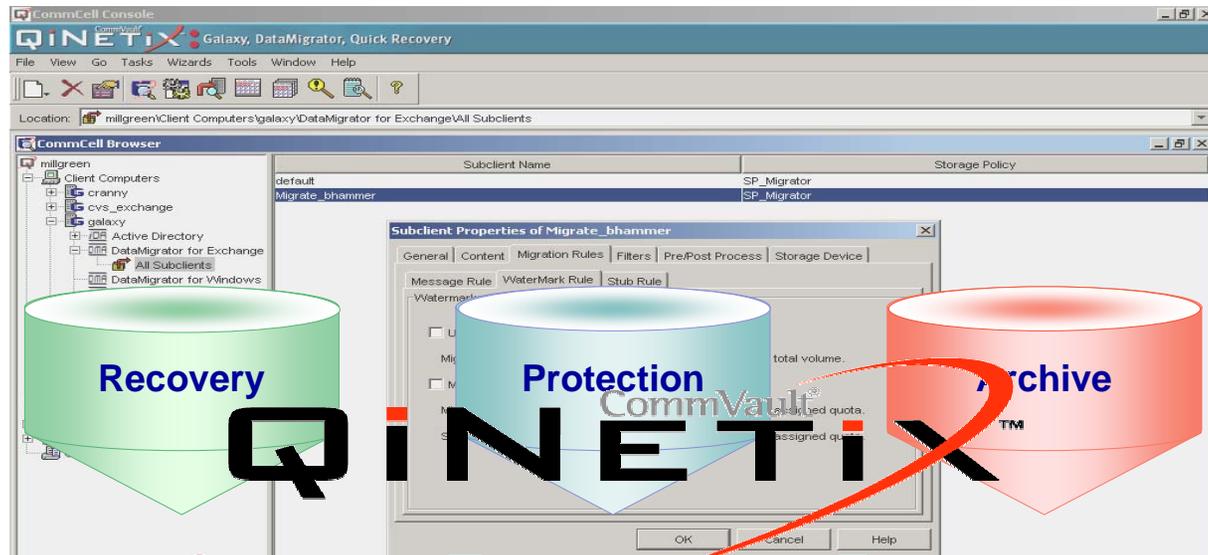
Production

Recovery

Protection

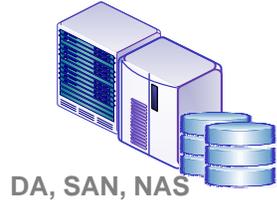
Archive

One Interface for Recovery, Protection & Archive

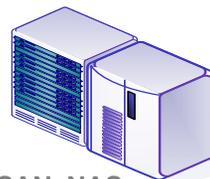


COMMON TECHNOLOGY ENGINE

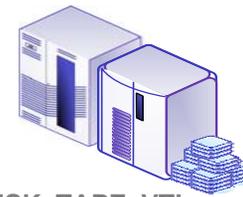
- ⊕ metadata ⊕ storage pools ⊕ policies ⊕
- ⊕ Enterprise Options ⊕



DA, SAN, NAS



SAN, NAS



DISK, TAPE, VTL



CAS, MEDIA

Application

Production

Recovery

Protection

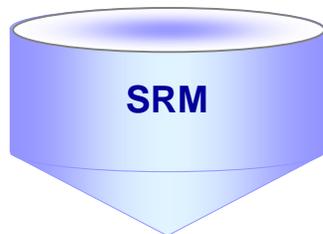
Archive

Meeting the Challenges

THE QINETIX PLATFORM

QNet
Secondary
SRM

QSM
Primary
SRM



QR
HA Snap
Management

CDR
Remote Site
Replication



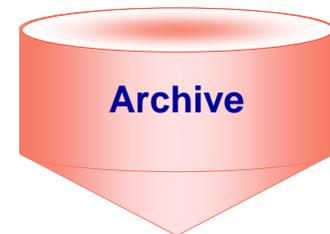
Galaxy
Backup &
Recovery

1-Touch
Server
Recovery



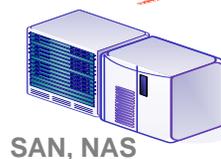
DataMigrator
Active
Archive

DataArchiver
Exchange
Compliance



QINETIX™

CommVault®



Use the best tools

- Adding ILM tools based on outdated architectures makes the problem worse
- Understand the degree of “Data Jail” you’ll be adopting, and the corresponding level of vendor and product lock-in you’ll experience.
- Explore the question of just how well the ILM tools will integrate with regular old data protection, SRM, etc.
- Explore the hardware flexibility of the ILM tools...will it work with what you have? Can you change out the hardware later?

Architecture Differentiators & Benefits of CV's Tools

1. Distributed Index used across all tiers

- ⊕ Higher scalability; Eliminate catalog issues; GridStor

2. Indexed Writes

- ⊕ Restartability; Reliability; Synthetic Full & Intelligent Restore

3. Disk to Disk

- ⊕ Eliminate staging; use disk natively

4. Unified QiNetix Platform

- ⊕ Simplify implementation, administration, support
- ⊕ Reduce acquisition, deployment, training, management costs
- ⊕ Complimentary modules reduce backup size, backup time, media costs

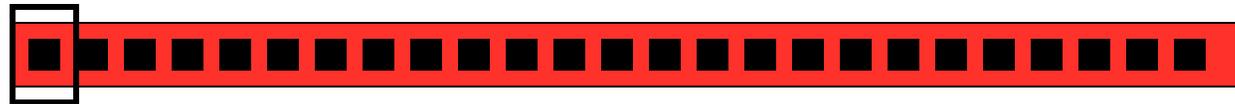
Key Technology: Disk to Disk – this has to work **CORRECTLY** first.

- More than 40% of our customers ***back up to disk first***
- Eliminate Staging – the solution should use disk as disk, and not emulate tape, or function only as a staging area
- Leverage *disk* as a single target for *all* data copies
 - Backup, migrate, archive and replicate to disk
 - Easily make additional copies to tape

Key Technology: Direct Access Recovery (DAR)

Backup/Migration/Archive-to-disk without DAR

- Treats disk as if it is tape
- Restores sequentially – reading through all of the data to find what you need and begin recovery



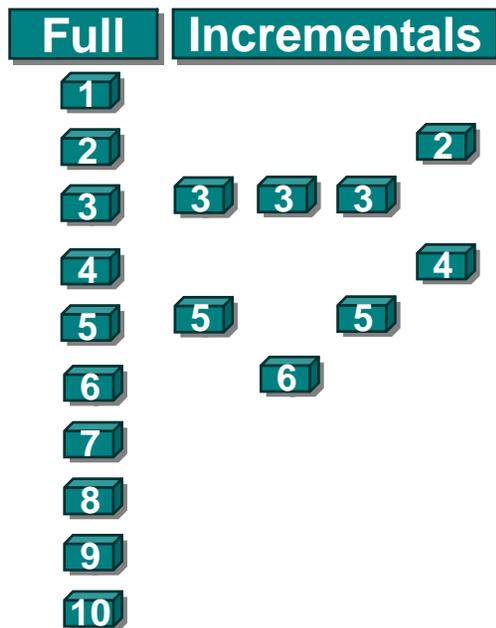
Backup/Migration/Archive-to-disk with DAR

- Uses random access
- Goes directly to what is needed and begins recovery

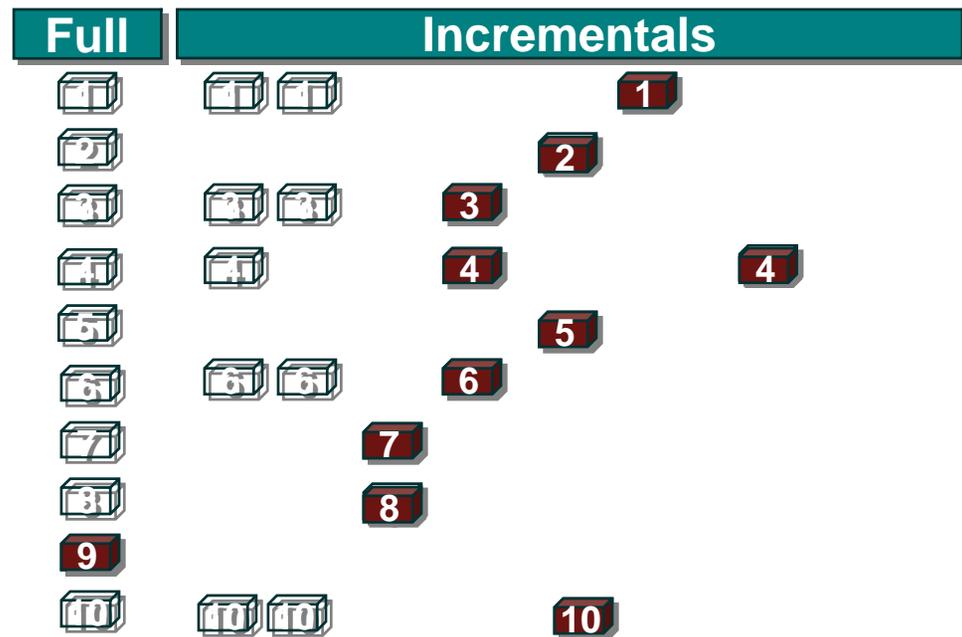


Key Technology: Single Pass Restore/Re-call

Traditional Restore from Incrementals

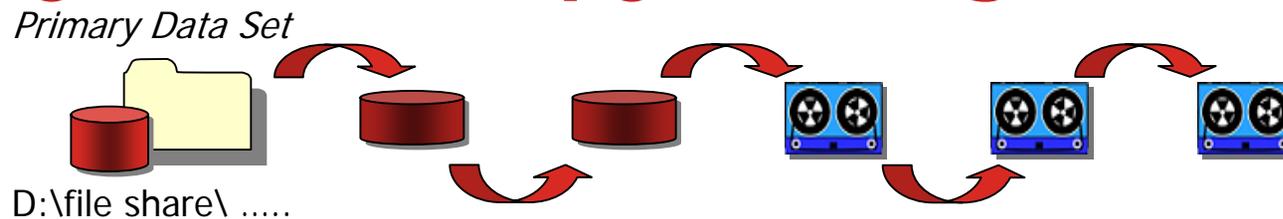


Single Pass Restore from Incrementals



- Restore one time instead of many
- Restore faster

Key Technology: Policy Based Copy Management

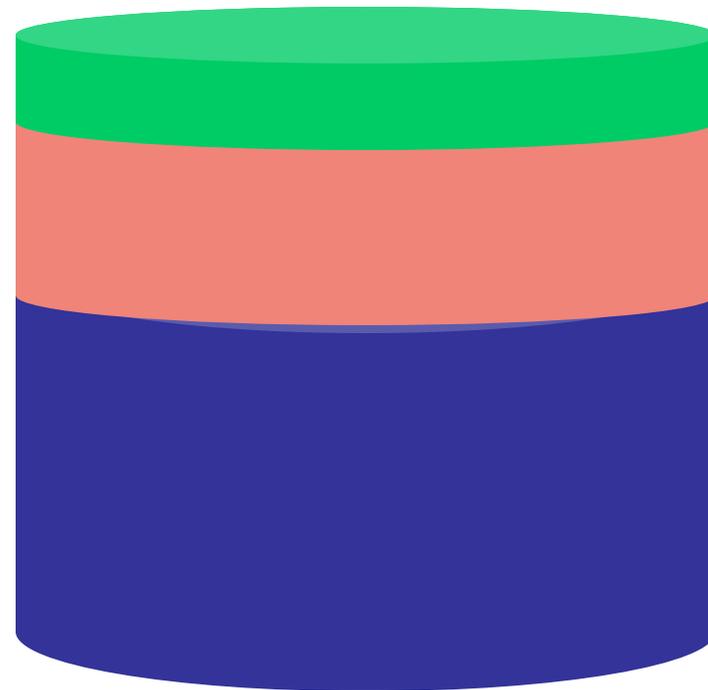


- **Vs** Manual
- **Comparison** User-intervention vs. Software Automation
- **Architecture** Single View / Single Index for all copies & retentions
- **Functions** Media Independent 'Extended' Retention
Selective, Subset, Job-based, Inline, Deferred, and Cascading Auxilliary Copies
Direct Restore to Primary
- **Solves** Admin Time, Restore Time, Backup & Restore Failures
Disk to Disk to tape methods.
- **Benefits** Increased automation, decreased admin time, IT Efficiency

How Much Data Really Belongs in Your Primary Storage Tier?

What percentage of data on an average file and print server is considered “production” data?

1. 100%
2. 50%
3. 25%
4. 15%

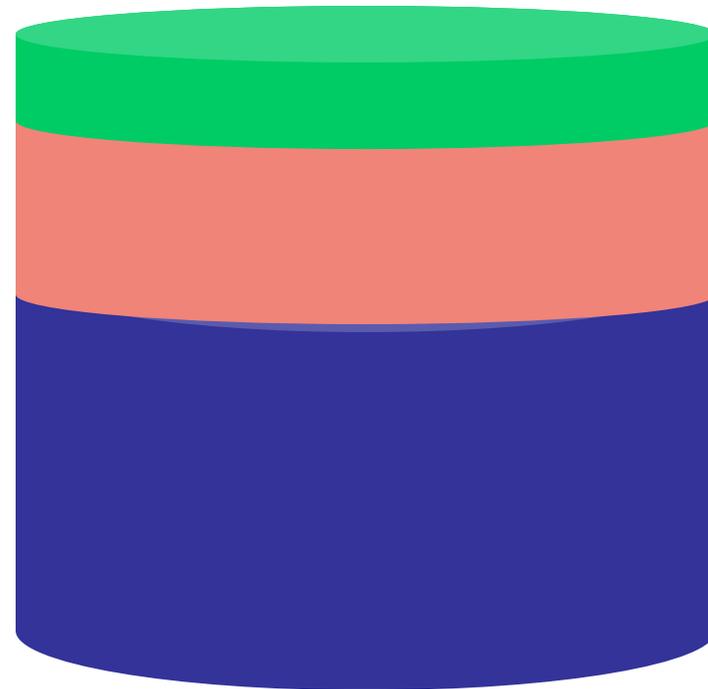


How Much Data Really Belongs in Your Primary Storage Tier?

4. 15%

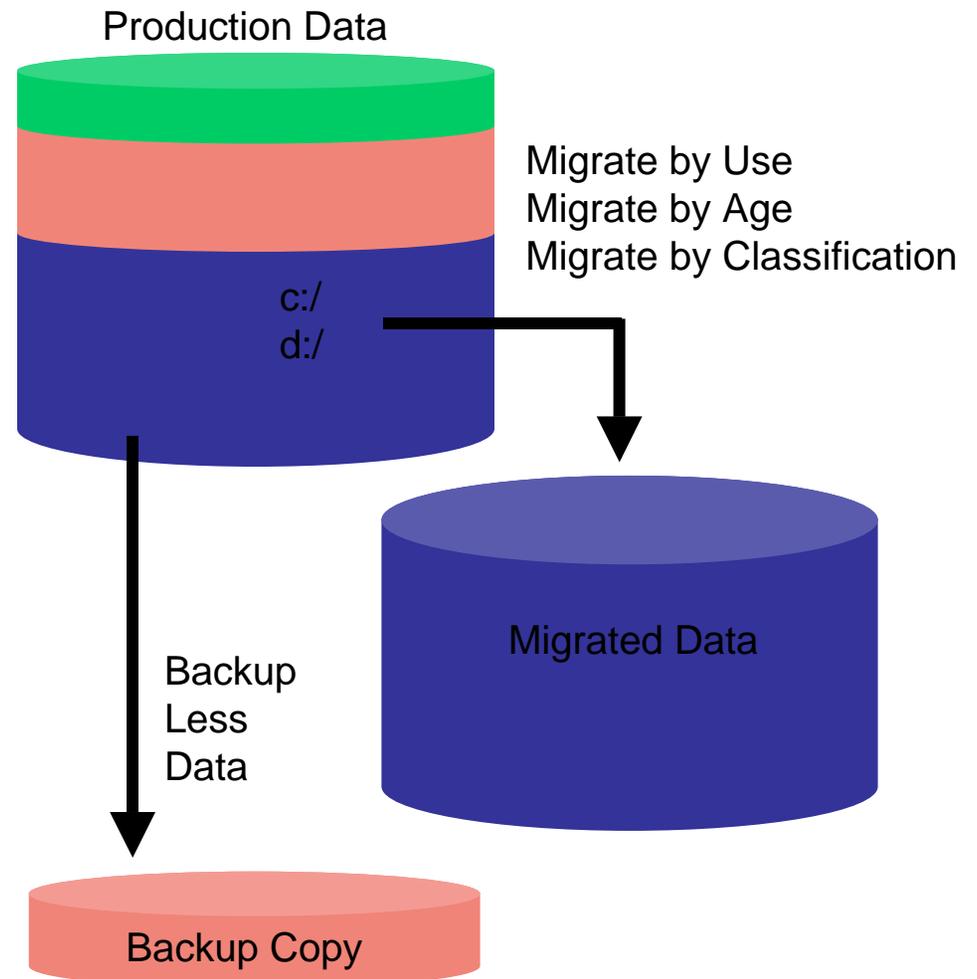
As much as 85% of the data on production servers is never or seldom used.

As little as 5-15% of all of the data on a server is actually needed for end-user base to be productive.



Data Migration and Data Backup

- Data Migration
 - Moves the data part of the file to a secondary storage location
 - The file entry is left in the original file system location
 - File name can be seen and selected by users
 - When opened, the data is retrieved back to the file in the primary storage location – automatically and transparently to users
- Data Backup
 - Makes a data copy
 - Restore is required to use
 - Original data is unchanged
- Adding Migration to Backup
 - Reduces primary data
 - Reduces time to backup and restore
 - Reduces disk and tape used for backup



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Learn more.
commvault.com

CommVault
World-Wide Headquarters
2 Crescent Place
P.O. Box 900
Oceanport, New Jersey 07757-0900
Phone: (732) 870-4000
FAX: (732) 870-4525

www.commvault.com