

# CommVault Galaxy Data Protection 6.1 for Enterprise Deployments

Simplified, Enterprise-Class Protection for File Systems, Applications and Database Systems

## Key Benefits

- ▶ Improve Administrator and Operator efficiency by reducing the backup and recovery burden
- ▶ Simplify operations with guided recovery
- ▶ Dramatically improve recovery performance
- ▶ Find and restore individual files, email and database objects quickly and easily
- ▶ Complete more jobs in the time allocated for backup and recovery
- ▶ Recover data easily and quickly to alternate systems and locations, to enable test, staging and disaster recovery
- ▶ Dramatically reduce disk and tape use
- ▶ Rapidly find and fix gaps in data protection
- ▶ Easily report on the value of data management
- ▶ Improve media handling with built-in tape tracking and rotation management
- ▶ Protect all key systems, applications and databases with a single solution
- ▶ Benefit from CommVault® core competencies for data protection

*Easily add capabilities for protection, archive, replication and snapshot recovery, all managed from the same Unified Console.*

## The Business Challenge

Managing data is usually about managing costs: the cost of disk and tape required to store data, the cost of the time required to manage the backup jobs to completion, the cost of delays when data cannot be found and restored quickly. Typically, data protection is more of a problem than a solution.

## The CommVault® Solution

CommVault Galaxy Backup & Recovery software delivers what you really need: reliable data recovery with maximum cost-efficiencies. Galaxy software makes it easy for you to browse and find data, select as little or as much as is needed, and then recover it quickly and efficiently. Galaxy software is application-aware and self-managing, so that you can spend your time on something more productive than double-checking backup copies. Point-and-click reporting saves time and helps you ensure that jobs complete.

The CommVault® solution is designed for fast, easy deployment with your existing infrastructure—so your time-to-better-backup can be days and not months.

Keep reading to find out what thousands of enterprise companies already know, and why Galaxy software is the fastest-emerging backup and recovery solution available.

## Increased Productivity

### Better Recovery Operations

Most other backup offerings start by managing devices. Galaxy software starts from the data and enables you to define what you need to do with the data, such as how many copies you need, for how long, and when to retire it. Then, Galaxy software does the work for you—managing the devices transparently to ensure efficient, cost-effective use of storage while preserving simple, one-step recovery.

Granular, object-level recovery is provided with easy, point-and-click browse and selection. Using Galaxy recovery, you find the data, select it, and recover. You do not have to start by finding the tapes or scanning jobs; Galaxy software tracks the data location to let you focus on the data.

### Better Backup Operations

Completing backup and recovery jobs is often the key challenge for backup administrators. Typically, much time can be wasted verifying that jobs have run—and completed—and then diagnosing the network, server or storage problem that disrupted operations.

CommVault Galaxy software provides advanced retry and failover resume capabilities that help jobs to complete even when failures occur, along with comprehensive point-and-click reporting to make verification a snap.

## Key Capabilities

### ▶ Ultra-rapid deployment with existing infrastructure—

CommVault software is easy to install, configure and manage. Support for a wide range of platforms and application versions makes it easier to maintain your systems environment.

### ▶ Web browser-based management—

Administrators and operators can manage data from virtually any location with web access.

### ▶ Fully configurable user-level security access levels—

Define and assign operational and management activities to different users and user groups.

### ▶ Simple-to-operate recovery—

Out-of-box simple, guided recovery that makes it easy for operators to handle recovery tasks.

### ▶ Galaxy Job Completion—

Retries the job automatically, to help ensure completion. Failover resume capabilities use alternate systems and data paths when equipment and networks fail.

### ▶ Efficient Library and Device Management—

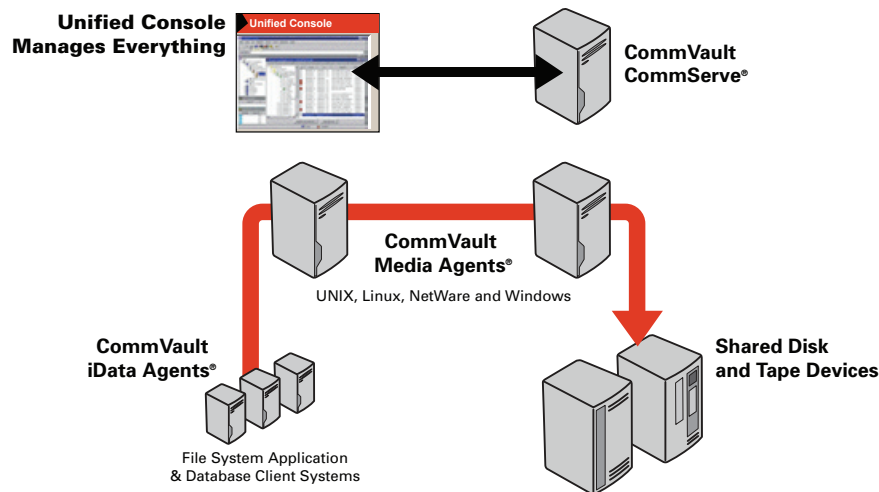
Easily share and manage disk and library devices, and manage mixed drives, for best cost-efficiencies.

### ▶ Tape Spanning and Appending—

Use fewer tapes by appending partially-full tapes, and spanning tapes with a single backup job. Single-step data recovery is still preserved.

### ▶ Point-and-Click Reporting—

Verify that backup jobs ran—and completed. Quickly find and fix problems, and verify CommCell readiness before critical jobs are started. Audit operator and administrator tasks and activities, to find and correct human error.



## More Jobs Complete with Galaxy Failover Resume

In the event that a Galaxy backup node (called a *Media Agent*) fails, the backup and recovery jobs are automatically resumed on alternate nodes. Resume means that the job does not have to restart from the beginning, but is resumed from the point of failure. This can be critical for finishing long jobs, in particular. Galaxy software also resumes jobs using alternative network connections when networks drop. Galaxy software uses this same capability to switch backup jobs to alternative tape drives when drives fail. The advanced design of Galaxy software preserves easy, one-step recovery even when backup copies span tapes.

## Better Library and Device Management

Most other backup offerings require add-on software including third-party software and complex setup to manage what should be basic configurations for data protection. Galaxy software makes it easy for you to attach and use the devices and libraries that you have in your environment.

## Point-and-Click Reporting

Reports that verify that backup jobs ran—and completed—along with recovery job history, tape tracking and rotation, operator and administrator audit tracking and other key reports are available with easy point-and-click access right from the CommVault Unified Console. Reports can be saved, exported and attached to email for easy distribution. In the same point-and-click interface,

reports can also be scheduled to be created and sent on email—without the administrator's assistance.

Reporting which includes analysis of the use of primary storage and secondary storage for backup copies, is also available as an easy add-on to the CommVault Galaxy solution.

## Application Benefits

CommVault offers iDataAgents (iDAs) to work with CommVault Galaxy software for business-critical applications. These iDAs integrate with application APIs to deliver on-line coherent backup and granular, object-level recovery.

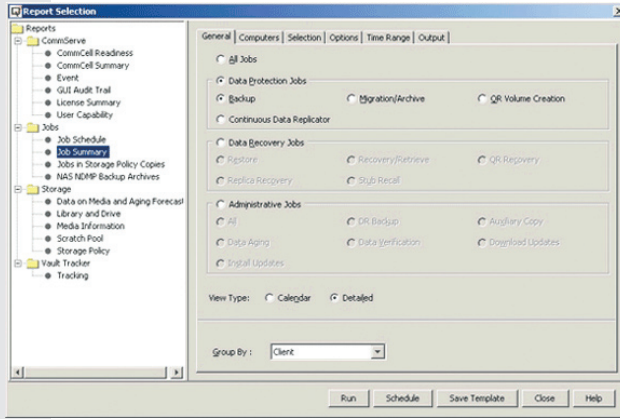
## Email Systems Protection

CommVault Galaxy iDAs are integrated with Lotus Notes, Notes Domino, and Microsoft-certified to protect Exchange messaging systems. Granular recovery of individual mail messages, mailboxes, and entire mail databases is provided. With this solution, you can find and restore individual mail messages using a single keyword, all with point-and-click ease from the Unified Console.

## ERM Systems Protection

Simplify management and coordinate data protection and recovery across complex, multi-tiered Enterprise Resource Management systems. CommVault's solution is certified with SAP R/3 and NetWeaver, and is also well-suited for deployment with other popular ERM solutions by easy embedding of pre- and post-processing commands in the CommVault Galaxy backup and recovery process.

Built-in reporting options make finding and fixing backup problems a snap. Color-coded for easy scanning, administrators can validate that backups occurred and quickly spot incomplete backup jobs listed in red.



Reports can be created at the touch of a button right from the Unified Console interface. Reports can also be scheduled, exported and attached to email for easy distribution.

## Database Systems Protection

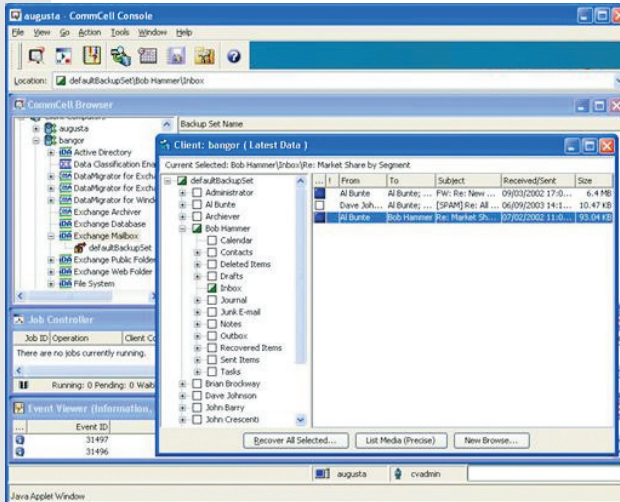
Integrated with key API sets to ensure coherent database protection, including:

- ▶ RMAN for Oracle and Oracle RAC
- ▶ ONBAR XBSA API set for Informix
- ▶ DB2/UDB API set
- ▶ MSDN VDI interface for SQL Server, to support parallel backup streams and best data protection performance
- ▶ Sybase

## File Systems Protection Including Directory Services and File Sharing Capabilities

CommVault Galaxy software coordinates backup and recovery for all parts of a platform that are interconnected to deliver file system, directory services and file sharing services. For example, this enables you to simplify management and coordinate data protection of Windows platforms with document-level backup and recovery of Microsoft Active Directory. You can also simplify data protection for Novell NetWare platforms with document-level backup and recovery of NetWare eDirectory services, GroupWise and Open Enterprise System (OES) environments running SuSE Linux.

CommVault Galaxy software enables point-and-click browse and recovery of individual mail messages, mailboxes and entire mail databases—and recovers the data without requiring you to first locate tapes.



Use CommVault Galaxy software to obtain best-in-class protection and object-level recovery of all your business-critical applications and systems data. CommVault Galaxy operations are designed to be more scalable, more reliable, and more usable across hundreds of heterogeneous systems. These capabilities work with virtually any disk and library architecture you require, and divide backup and recovery loads across UNIX, Linux, NetWare and Windows systems, according to your preference and requirement.

## Key Features and Benefits

### Features

### Benefits

**Easy, fast recovery of file system, database and application data using object-level recovery capability**

Fast data recovery and business resumption. No need to recover an entire Exchange database, SharePoint database, or volume—which could take days—when all you need is a single data object which restores in minutes.

**Easy right-click select among multiple file versions**

See multiple versions of the same file, and easily select all, some or one to recover the exact version that your business-user requires.

**One-Pass Restore volume-level recovery**

Speeds recovery and reduces tape wearing, by restoring all data using a single pass through the tape without needing to recover multiple versions of the same file like other backup offerings do. Same capability works on disk, to offer faster restore.

**Distributed relational index**

Eliminates issues typically associated with managing other backup software catalogs. Relational structure ensures high-speed performance for index look-ups. Double-commit store of index ensures recoverability, and eliminates the need for administrative management of the index.

**Full, incremental, differential and Synthetic Full backup options**

Enables most efficient data protection possible, and with appropriate use of storage media to ensure just as rapid recovery from synthetics as from fulls.

**Easy Auxiliary Copies, configurable for in-line, selective, synchronous or cascading**

Ensures compliance with your policies for data protection and retention, and ensures recoverability since a copy of the data is always available.

**Granular backup job control and management**

Fine-tune your operation by controlling all jobs by queue, pre-emption, priority, on-demand restart, and update interval. Suspend, resume or kill any job using the Job Controller Window at will.

**Multi-streaming and multi-plexing**

Depending on backup needs, such as when managing many small files or when writing to fast-performing drives, these capabilities can offer improved performance and efficiencies to perform backups more quickly and fit into smaller windows.

**Round-robin load balancing of backup loads using available systems**

Perform backups more quickly and fit into smaller windows, by dividing backup loads among UNIX, Linux, NetWare and Windows systems.

**Efficient port utilization when backing up through firewalls**

Depending on your needs and configuration, as few as two ports are required to backup through a firewall, saving you money and resources.

**Shared library management**

Increase ROI on expansive library equipment, by providing shared access to libraries and built-in robot management from multiple backup servers. Because library sharing is built-in, it is easier to deploy, manage and maintain than with other backup offerings.

**Shared drive management**

Append data and fill removable media such as tape, rather than wasting tape and increasing your costs if tapes are not filled when you need to rotate them off-site.

**Data aging, which is the automated pruning of older data from disk**

Avoid the need for expensive add-on or third-party software to manage different types of tape drives in the same library.

## Additional Solutions to Use with CommVault Galaxy Software

CommVault offers a *Singular* suite of data management software built on the same software platform so that all capabilities work together. This makes it easy to add capabilities when and how you need them. To add on to CommVault Galaxy software, consider:

► **Archive**

- Control cost and growth of file system and Exchange Server data
- Extend the life of storage systems
- Be prepared for legal discovery and compliance regulations

► **Continuous Data Replicator (CDR)**

- Remote Office Data Centralization and Protection
- Disaster Recovery
- Mount and Self-Restore of Replicated Data by Users

► **Quick Recovery (QR)**

- Higher Availability of Oracle, Exchange Server and SQL Server Using Snapshot Recovery
- For Frequent Points in Time of Protection
- Faster Recovery Time

► **Resource Management**

- Monitor and anticipate primary storage growth requirements
- Monitor and anticipate secondary storage growth requirements

## System Requirements

<b>Applications and Databases</b>	Active Directory, DB2, Lotus Notes/Domino, Microsoft Exchange Server, Microsoft SharePoint Systems, Microsoft SQL Server, Novell GroupWise, Oracle, Oracle RAC, SAP R/3 and NetWeaver, Sybase
<b>File Systems</b>	AIX, FreeBSD, HP-UX, Novell OSE Linux, Macintosh, Microsoft Windows, NAS NDMP, NetWare, Red Flag Linux, Red Hat Linux, SGI Irix, Solaris, SuSE Linux, Tru64
<b>Media Agent Platforms</b>	AIX, HP-UX, Solaris, NetWare, Microsoft Windows, Tru64, Red Flag Linux, Red Hat Linux, SuSE Linux. Clustering options are supported.

**Note:** System Requirements are subject to change. For up-to-date System Requirements including 32- and 64-bit systems support, please refer to product documentation on the CommVault website at <http://www.commvault.com>

**Find out how you can take the *Singular* approach to data management, and transform managed data into business value. Contact CommVault at a location near you.**

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