



Tivoli software

IBM Tivoli Storage Manager for Mail

Highlights

- **Effectively protect and manage Lotus® Domino™**
- **Effectively protect and manage Microsoft® Exchange**

To keep your business processes operating, IBM® Tivoli® Storage Manager for Mail helps deliver an effective solution for backing up and restoring e-mail files and databases. This solution employs the application program interfaces (APIs) provided by e-mail application vendors to enhance functionality, perform online “hot” backups and improve restore performance. As a result, it can help you manage the growing amount of new and changing data you need to back up—more securely—and help you maintain 24x365 application availability.

Tivoli Storage Manager for Mail enables you to use robust security to store important data from two widely used messaging and collaboration applications: Lotus Domino and Microsoft Exchange.

Effectively protect and manage

Lotus Domino

Tivoli Storage Manager for Mail can help improve backup and recovery procedures for Lotus Domino databases by providing capabilities that take advantage of changes made to the Lotus Domino server architecture in Release 5. It features a specific API for backup and recovery of databases, enabling you to perform full online backups of individual databases without shutting down the server.

Tivoli Storage Manager for Mail helps you exploit the “transaction logging” feature of Domino, enabling you to capture just the database changes for logged databases. Thus, full database backups are not required as frequently as in previous Domino releases. Updates to a logged database are recorded in the Domino server transaction log. If a recovery is necessary the database can be restored using the last full backup—augmented by any changes to the database since the last backup, as recorded in the transaction log. A recovery requires that logged databases and the transaction log be

backed up regularly. Tivoli Storage Manager for Mail backs up both of these data objects automatically.

Key features of transaction log support include:

Ability to archive transaction log files—enables you to back up only changes to data (rather than entire databases), minimizing bandwidth use.

Ability to archive the “currently filling” transaction log file—backs up the most recent changes to the databases as recorded in the currently active transaction log.

Protection against log space overflow—provides “log archive threshold” functionality, protecting against a transaction log filling up the available log space on the server and enabling increased server performance by only affecting transaction logging when absolutely necessary.

Online archive of transaction log files—enables automatic retrieval of archived transaction logs during database recovery (when necessary).

Point-in-time restore of archived transaction log files during database recovery—restores a full backup, then applies transactions from the transaction log up to the desired point in time.

Automatic detection of database instance ID (DBIID) changes—intelligently scans for changed data that might occur due to server maintenance or a scheduled compaction of data files. It then initiates a new full backup to capture the changed data, providing the backup files you need to complete a restore.

Tivoli Storage Manager for Mail supports many high-performance features, such as the use of parallel sessions to help maximize throughput of backup data and shorten the backup window. Full backups can be scheduled to occur at specific intervals, such as when traffic is low. Incremental backups, which require fewer system resources and have less impact on application performance, can occur more frequently. Tivoli Storage Manager for Mail can capture only the database changes since the last backup.

For logged databases, “changed” data is archived in the Domino environment from one full backup to the next. Tivoli Storage Manager for Mail provides an incremental backup command for the Domino environment that backs up only the following:

- *Any new databases that have not yet been backed up*
- *Nonlogged databases that have changed since the prior backup*
- *Logged databases that need a new full backup because the database instance ID has changed*

Additional features:

- *Parallel backup sessions for high performance*
- *Policy management*
- *LAN-free backup (SAN exploitation)*
- *Support for clustered environments*
- *Automatic expiration and version control*
- *Restore on alternate server*
- *Broad platform coverage*
- *Graphical user interface (GUI)—Microsoft Windows® only—and command line interface*

Effectively protect and manage Microsoft Exchange

Tivoli Storage Manager for Mail supports both Microsoft Exchange server 5.5 and Microsoft Exchange 2000 server. It uses the backup APIs provided by Microsoft to help maximize the protection of your data and provide a professional, wide-ranging storage management solution for your Exchange environment.

Tivoli Storage Manager for Mail helps protect your Exchange server storage group by creating a copy of it, along with the associated transaction logs. To begin, a session is started with a Tivoli Storage Manager server. The Exchange server is then informed that a backup is about to begin. Data from the exchange server is read and forwarded to the Tivoli Storage Manager server, and the Exchange server is notified that the backup has been completed, which ends the Tivoli Storage Manager server session.

For protecting Microsoft Exchange, Tivoli Storage Manager for Mail can produce the different types of backups specified by Microsoft backup APIs:

Full backup—backs up the specified storage group and associated transaction logs and then deletes the log files only if the backup is successful.

Incremental backup—backs up only the transaction logs and then deletes them only if the backup is successful.

Differential backup—backs up only the transaction logs but does not delete them. A cumulative incremental backup (the last full backup plus the latest differential backup) contains the data needed for a complete restore.

Copy backup—similar to a full backup, except transaction log files are not deleted after the backup. A copy backup can be used to make a full backup without disrupting regularly scheduled backup procedures that use incremental or differential backups.

Database copy backup (Exchange 2000 server only)—backs up only the specified database and associated transaction logs. Transaction log files are not deleted after the backup. This procedure also does not disrupt regularly scheduled backup procedures that use incremental or differential backups.

Additional features:

- *Parallel backup sessions for high performance*
- *Automated transaction log file management*
- *Windows 2000 Installer support*
- *Policy management*
- *Microsoft Cluster Server (MSCS) support for failover*
- *Automatic expiration and version control*
- *LAN-free backup (SAN exploitation)*
- *Windows GUI available*

Backup and restore at an individual mailbox granularity can be set up with the ExMerge Utility of Exchange supported by functions of Tivoli Storage Manager.

Complementary products

IBM Content Manager CommonStore for Lotus Domino and IBM Content Manager CommonStore for Exchange Server provide individual and policy-based offload of mail or attachments. As part of the integrated IBM Content Manager portfolio for enterprise content management, CommonStore integrates Lotus Domino and Microsoft Exchange Server with IBM archives.

Tivoli Storage Management products

Tivoli Storage Manager is the cornerstone of the Tivoli storage solution,

which includes Tivoli Storage Manager Enterprise Edition—designed for the complexities encountered in an enterprise environment. Tivoli software also offers separate modules to increase availability and protect business-critical data, including:

- *IBM Tivoli Storage Manager for Databases*
- *IBM Tivoli Storage Manager for Enterprise Resource Planning (ERP)*
- *IBM Tivoli Storage Manager for Application Servers*
- *IBM Tivoli Storage Manager for Hardware*

Tivoli Storage Manager is available in two packages:

Tivoli Storage Manager

- *Base management functions of Tivoli Storage Manager*
- *Supported hardware devices and platforms*
- *Integration with optional application protection modules*
- *Data backup and restore*
- *Managed data archive and retrieve*

System requirements

Hardware and software requirements for managing Microsoft Exchange

Operating system

- IBM Tivoli Storage Manager server
- Microsoft Exchange Server, Version 5.5 with Service Pack 3 or Microsoft Exchange 2000 Server

Minimum memory and space requirement to run

- Intel® Pentium® 166 or equivalent, or later processor with at least 12MB of available disk space
- RAM—48MB (96MB or more recommended)
- Microsoft Windows NT®, Version 4.0 with Service Pack 4 or Windows 2000 Server, Advanced Server or Datacenter Server with Service Pack 1 or later
- Tivoli Data Protection for Lotus Domino 1.1 on IBM AIX®

Hardware and software requirements for managing Lotus Domino on IBM AIX

Operating system

- IBM AIX 4.3.3 or 5.1 (with Domino, Release 5.09+)
- Lotus Domino, Release 5.0.1 Server or later
- IBM Tivoli Storage Manager server
- IBM Tivoli Storage Manager backup archive client (with IBM)
- Machine—RS/6000® or pSeries™

Minimum memory and space requirement to run

- RAM—64MB (128MB or more recommended)
- Disk space—3MB

Tivoli Storage Manager Enterprise Edition

- *Basic functions of Tivoli Storage Manager*
- *Disaster preparation planning and recovery*
- *Hierarchical storage management (HSM) for easier access to offline data*
- *NDMP control for NetApps NAS Filers*
- *Tape library management*

- *LAN-free disk-to-tape data movements over a SAN*
- *LAN-free disk-to-disk data movements over a SAN (through Tivoli SANergy™)*

To learn more

For information on IBM Tivoli Storage Manager for Mail and integrated solutions from IBM, contact your IBM sales representative or visit info.tivoli.com/storageforsuccess



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