



Highlights

- Perform near-instant application-aware snapshot backup and restore, with minimal performance impact for IBM DB2®, Oracle, SAP, Microsoft SQL Server and Exchange
 - Protect other applications through a scripting interface, and perform advanced operations such as quality assurance testing through database cloning
 - Protect data on a wide range of platforms, including AIX®, HP-UX, Linux, Solaris, VMware and Windows
 - Satisfy advanced data protection and data reduction needs through optional integration with IBM Tivoli® Storage Manager.
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IBM Tivoli Storage FlashCopy Manager

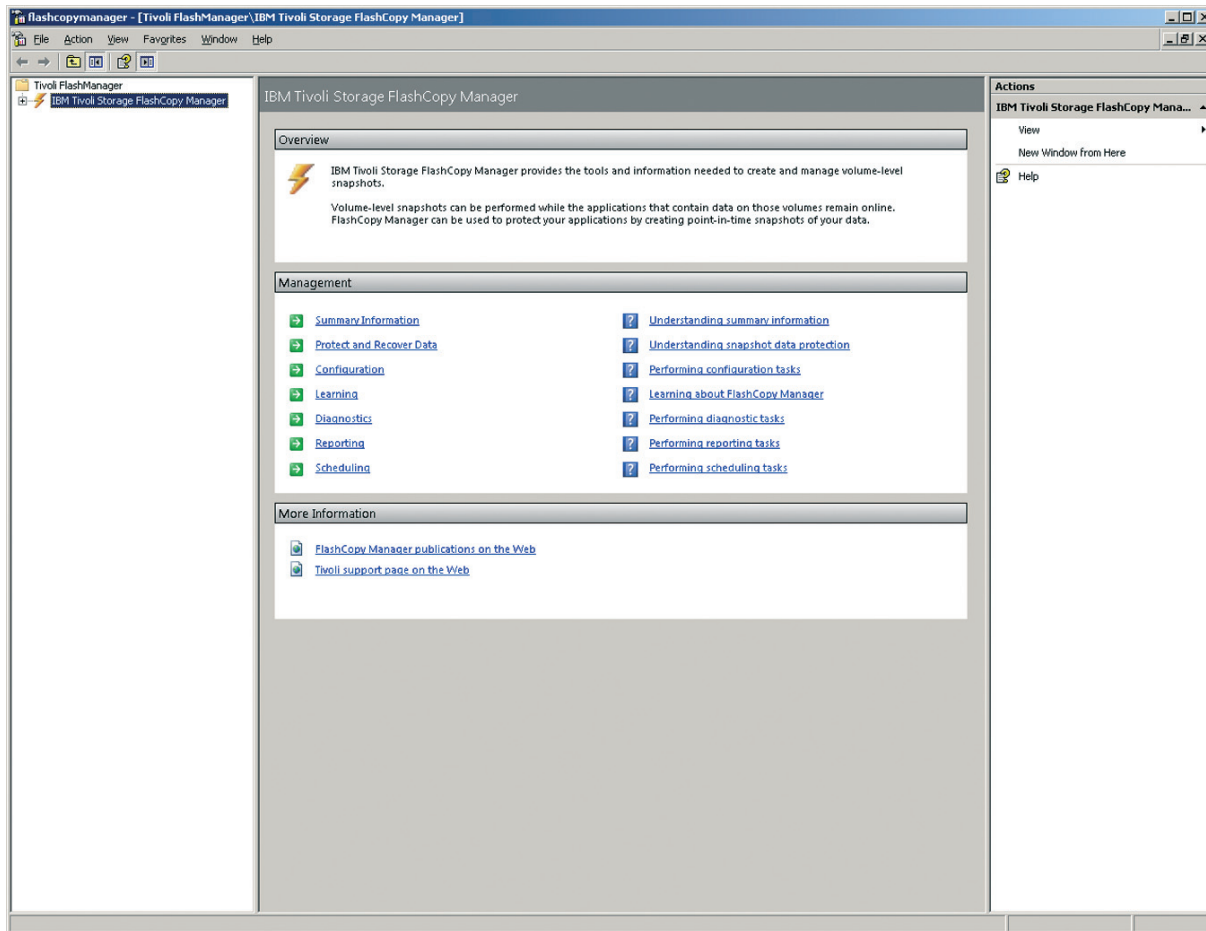
*Online, near-instant snapshot backup and restore
of critical business applications*

In today's business world, where application servers are operational 24 hours a day, the data on these servers must be fully protected. You can't afford to lose any data, but you also can't afford to stop these critical systems for hours so you can protect the data adequately. As the amount of data that needs protecting continues to grow exponentially and the need to keep the downtime associated with backup to an absolute minimum, IT processes are at their breaking point.

Data volume snapshot technologies, such as IBM FlashCopy®, can help minimize the impact caused by backups and provide near instant restore capabilities. Many storage systems are now equipped with volume snapshot tools, however these hardware-based snapshot technologies provide only "crash-consistent" copies of data. Many business-critical applications, including those that rely on a relational database, need an additional snapshot process to ensure that all parts of a data transaction are flushed from memory and committed to disk prior to the snapshot to ensure you have a usable, consistent copy of the data.

IBM Tivoli Storage FlashCopy Manager can help deliver the highest levels of protection for mission critical IBM DB2, SAP, Oracle, Microsoft Exchange and Microsoft SQL Server applications via integrated application-aware snapshot backup and restore capabilities. This is achieved through the exploitation of advanced IBM storage hardware snapshot technology to create a high performance, low impact application data protection solution. Custom application support enables FlashCopy Manager capabilities to be extended to any application or file system on the supported platforms.





As a comprehensive solution for protecting and restoring critical applications, IBM Tivoli Storage FlashCopy Manager has a wide range of functionality available from the main menu.

IBM Tivoli Storage FlashCopy Manager is an easy to install, configure and deploy package that seamlessly integrates with IBM System Storage® DS8000®, IBM System Storage SAN Volume Controller, IBM XIV® Storage System and IBM Storwize® V7000 products. For Microsoft Windows environments, Tivoli Storage FlashCopy Manager also protects Microsoft applications on any other storage systems that support Microsoft Volume Shadow Copy Services (VSS).

The snapshots captured by Tivoli Storage FlashCopy Manager can be retained as backups on local disk. Through optional integration with Tivoli Storage Manager, customers can leverage the full range of advanced data protection and data reduction capabilities such as data deduplication, progressive incremental backup, hierarchical storage management and centrally managed policy based administration.

Since a snapshot operation typically takes much less time than the time for a tape backup, the window during which the application must be aware of a backup can be reduced. This facilitates more frequent backups—which can reduce the time spent performing forward recovery through transaction logs—and increases the flexibility of backup scheduling and eases administration. Application availability is also significantly improved due to the reduction of the load on the production servers.

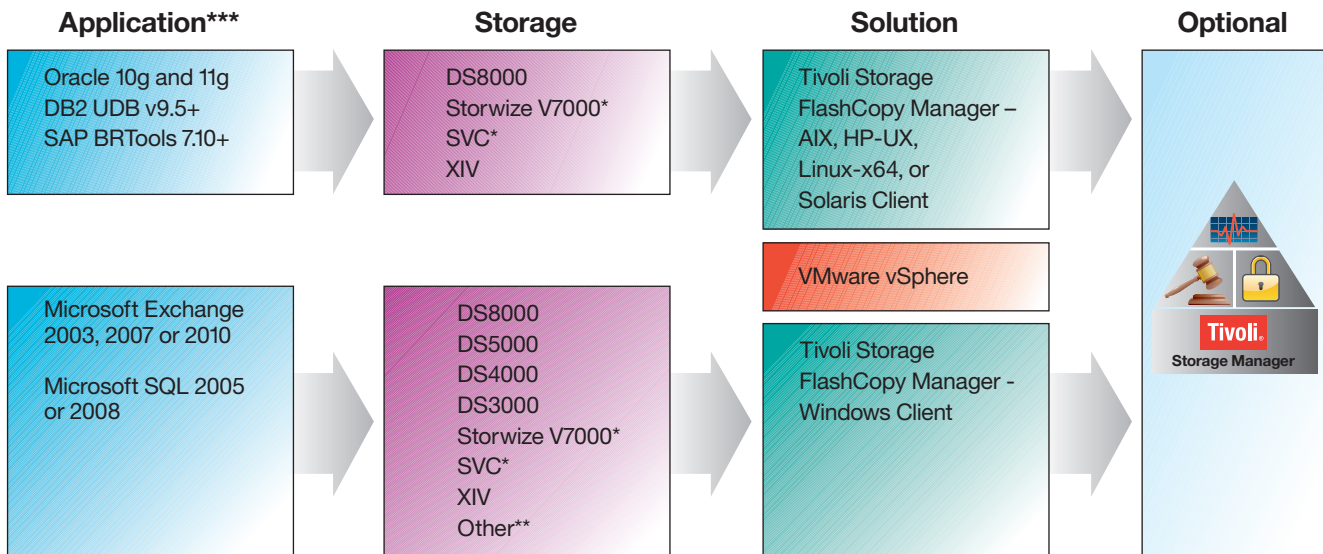
Tivoli Storage FlashCopy Manager exploits storage snapshot capabilities to provide high speed, low impact application integrated backup and restore functionality for the supported application and storage environments. Automated policy based

management of multiple snapshot backup versions together with a simple and guided installation and configuration process provide an easy to use and quick to deploy data protection solution that enables the most stringent database recovery time requirements to be met.

Tivoli Storage FlashCopy Manager also includes advanced data protection and recovery features for VMware vSphere 4 and vSphere 5 virtualized server environments. In addition to creating volume-level snapshots from within virtual machines, it offers the ability to protect an entire vSphere environment from a single backup server through integration with the VMware APIs for Data Protection (VADP) and by creating volume level snapshots of the VMFS datastores. Those snapshots of the VMFS datastores can be used to restore individual virtual machine images, virtual volumes owned by a virtual machine, or individual files from a virtual volume of a particular virtual machine.

In Windows environments, Tivoli Storage FlashCopy Manager can exploit SQL Server data compression when sending data to Tivoli Storage Manager, to reduce storage and network bandwidth requirements, and can restore the backups of SQL and Exchange databases to flat files.

Tivoli Storage FlashCopy Manager supports clustered application environments (MSCS or VCS on Windows and HACMP™ on AIX) as well as Microsoft Exchange 2007 and Exchange 2010 continuous replication configurations.



* Plus any storage supported by SVC

** Any VSS-capable storage is supported by the Windows Client

*** And other applications through custom scripting

IBM Tivoli Storage FlashCopy Manager provides advanced protection for critical applications on IBM System Storage.

Item Level Recovery for Microsoft Exchange

Tivoli Storage FlashCopy Manager contains built-in capabilities to restore individual mailbox and mail items of Microsoft Exchange 2007 and Exchange 2010 servers from a snapshot backup, including messages, calendars, contacts and other mail objects.

Key benefits

- Improve backup and recovery times from hours to a few minutes.
- Improve productivity by simplifying management and automating routine administrative tasks.
- Leverage existing investments in IBM storage systems and core data protection and recovery systems such as IBM Tivoli Storage Manager.

Simplified deployment and advanced application of snapshot capabilities

IBM Tivoli Storage FlashCopy Manager includes all the function needed to install, configure and execute application-aware snapshot protection. Included in the solution are easy to use wizards that guide the installation and configuration process. Additionally, Tivoli Storage FlashCopy Manager will check to ensure that all the needed pre-requisite software is installed and configured.

In addition to backup and recovery functions, Tivoli Storage FlashCopy Manager provides database cloning support to help users perform tasks that are not directly tied to backup and recovery procedures such as quality assurance, education, application development, and data mining.

Integration with IBM Storage System Hardware Snapshot Technology

Tivoli Storage FlashCopy Manager exploits the incremental FlashCopy backup capabilities of the IBM System Storage DS8000, IBM System Storage SAN Volume Controller (SVC) and IBM Storwize V7000 to provide application-consistent protection of critical data, enabling faster, more reliable recoveries.

Tivoli Storage FlashCopy Manager works with any of the more than 130 storage devices that can be virtualized under SVC and will automatically detect snapshot deletions that are done outside of Tivoli Storage FlashCopy Manager. Tivoli Storage FlashCopy Manager also enables the near-instant restore capabilities of SAN Volume Controller when there are multiple backup generations on space efficient target volumes (for Microsoft Windows).

When used with IBM XIV Storage System, FlashCopy Manager similarly exploits XIV's highly efficient, auto provisioned snapshots. Tivoli Storage FlashCopy Manager also integrates with IBM System Storage DS3000, DS4000 and DS5000 via the Microsoft Volume Shadow Copy Services (VSS) interface to provide application-consistent recovery of critical Windows applications.

Optional Tivoli Storage Manager Integration

The optional integration with IBM Tivoli Storage Manager allows Tivoli Storage FlashCopy Manager users to take advantage of the robust data protection and data reduction capabilities, such as data deduplication, of Tivoli Storage Manager:

- Enhanced data protection scalability with a relational database, based on IBM DB2 technology, designed to store many more objects and manage more data
- Near real-time monitoring and operational reporting capabilities
- Built-in source-side and target-side data deduplication that help eliminate redundant data; this can enable significantly more backup data to be stored on disk and can reduce network traffic
- Centralized backup and archive of the data stored on the networked computers throughout an organization
- Automated, progressive incremental backup-restore and archive-retrieve of the data from more than a dozen different platforms
- Automated, policy-based disaster preparation, planning, and recovery

For more information

To learn more about IBM Tivoli Storage FlashCopy Manager, please contact your IBM marketing representative or IBM Business Partner, or visit the following website:

ibm.com/software/tivoli/products/storage-flashcopy-mgr

For up-to-date information on system requirements and supported applications and platforms, please visit:

ibm.com/support/docview.wss?uid=swg21427692

About Tivoli software from IBM

Tivoli software from IBM helps organizations efficiently and effectively manage IT resources, tasks and processes to meet ever-shifting business requirements and deliver flexible and responsive IT service management, while helping to reduce costs. The Tivoli portfolio spans software for security, compliance, storage, performance, availability, configuration, operations and IT life-cycle management, and is backed by world-class IBM services, support and research.

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