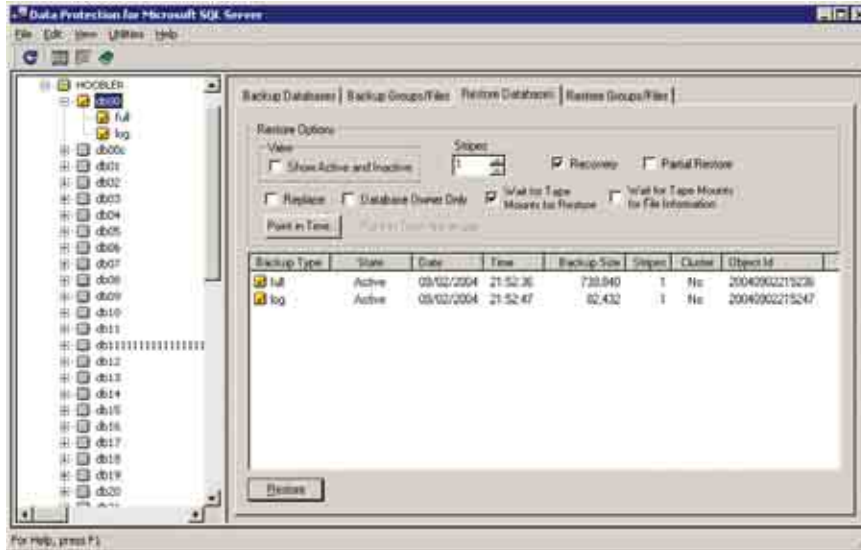


Designed to give you the flexibility to back up your databases with greater backup and restore options



IBM Tivoli Storage Manager for Databases



Today, an On Demand Business faces an expanding set of data-protection challenges and regulatory data-retention requirements. The 24x7 availability of mission-critical data and applications is no longer a goal—it's a business necessity. The IBM Tivoli® Storage Manager family of offerings is designed to provide centralized, automated data protection that can help reduce the risks associated with data loss while also helping reduce complexity, manage costs and address compliance with regulatory data retention requirements.¹

Highlights

- **Designed to provide online hot backups**
- **Offers performance-enhancing functions**
- **Centralizes storage management with disaster-recovery support**
- **Helps maintain data integrity**
- **Designed to provide LAN and SAN backups and restores**
- **Supports Microsoft® SQL Server, Oracle and IBM® Informix® databases**

Tivoli Storage Manager can help protect your organization's data from failures and other errors by storing backup, archive, space management and bare-metal restore data, as well as compliance and disaster-recovery data in a hierarchy of offline storage. Because it is highly scalable, Tivoli Storage Manager can help protect computers

running a variety of operating systems, on hardware ranging from notebooks to mainframe computers and connected together through the Internet, wide area networks (WANs), local area networks (LANs) or storage area networks (SANs). It uses Web-based management, intelligent data move-and-store techniques and comprehensive policy-based automation working together to help increase data protection and potentially decrease time and administration costs.

Managing inactive data in a hierarchy of storage

Every environment has inactive data that it must manage, and in most IT environments, inactive data makes up the bulk of gigabytes stored. In an on demand operating environment, inactive data is managed and stored in a hierarchy of lower-cost storage. This helps to lower costs because automated policies store data on the type of media that best meets that data's longevity, access speed and cost needs. You can use the hierarchy of storage to optimize the management of your data.

Using IBM TotalStorage® Open Software Family solutions built on IBM Tivoli Storage Manager software and a wide range of optional, integrated Tivoli Storage Manager modules, you can centrally manage inactive data, help protect your organization from hardware failures and other errors, and better match the value of your data to the most cost-effective storage management practices.

Recovery management

Recovery management extends to protecting database and application data. An on demand business relies on valuable data that is collected in various mission-critical databases and applications across its infrastructure. The Tivoli Storage Manager family supports the online protection and recovery of a wide variety of today's business-critical applications—databases, enterprise resource planning (ERP) systems, mail and application servers—that must remain available 24x365.

IBM Tivoli Storage Manager for Databases is designed to capture reliable, online full, incremental or differential recovery points for databases or data files, and feed the backup data into the IBM Tivoli Storage Manager hierarchy.

Designed to provide online hot backups

Tivoli Storage Manager for Databases is a software module that runs in various database environments to provide online, hot backups and restores of Oracle, IBM Informix and Microsoft SQL Server databases. In conjunction with the Tivoli Storage Manager client application programming interface (API) software, this module interfaces through a network with a centralized Tivoli Storage Manager server and its hierarchy of low-cost storage that holds the backed-up data. It can help you control the costs associated with distributed storage management by leveraging storage resources and automating management tasks while providing data protection for your databases.

Tivoli Storage Manager support for IBM DB2® databases is included in the IBM DB2 Universal Database™ package; a separate purchase is not required. For mySAP systems with their underlying databases, IBM offers a specialized product called IBM Tivoli Storage Manager for Enterprise Resource Planning.

Centralizes storage management with disaster-recovery support

Tivoli Storage Manager for Databases is designed to let you leverage the efficiency of centralized storage management. This enables you to take advantage of the scalability, hierarchical storage management (HSM) and robust disaster-recovery functions of Tivoli Storage Manager with the ease and convenience of a centralized location. Tivoli Storage Manager for Databases can also help you restore data, including offsite tapes, minimizing disruption to daily user activities. In the event of a disaster, it can also take advantage of the Tivoli Storage Manager Extended Edition ability to prepare and keep current a recovery plan with detailed recovery steps and computer scripts. An offsite copy of your active data can be restored to new storage to help get your business operating again as quickly as possible.

Provides LAN and SAN backup and restore capabilities

Tivoli Storage Manager for Databases can help you enable more efficient use of your IT resources by providing support for LAN-free backups and restores when used in conjunction with a SAN. The product features three distinct

data-protection clients—one for Microsoft SQL server databases, one for Oracle databases and one for Informix databases. All three clients support online LAN or SAN backups, helping you maximize the availability of your databases and the applications that they support. The LAN-free transfer capability lets you move data off the LAN to back up and restore data from a SAN-attached tape library or disk pool that can be shared by Tivoli Storage Manager servers. This capability gives you an alternate path for data movement, allowing a greater number of simultaneous client connections and freeing LAN bandwidth.

Offers performance-enhancing functions

The three clients support incremental backups, making it possible for you to reduce network traffic by saving only changed database blocks, and helping you avoid the need to transfer an entire database during each backup window. It also lets you perform multiple parallel sessions to the Tivoli Storage Manager server to back up and restore data for a single database, helping increase data throughput (particularly in large databases).

Helps maintain data integrity

The ability to achieve a point-in-time restore of your on demand business environment is critical. Therefore, to help keep your data intact, Tivoli Storage Manager for Databases uses only backup-certified utilities and interfaces provided by Microsoft SQL Server, Oracle and Informix databases.

Supports Microsoft SQL Server, Oracle and Informix databases

Tivoli Storage Manager for Databases is designed to exploit the backup-certified utilities and interfaces provided for Microsoft SQL Server, Oracle and Informix.

Microsoft SQL Server database support

The Tivoli Storage Manager for Databases Data Protection for SQL client is certified by Microsoft. It is available with a native Microsoft Windows® graphical user interface (GUI) for easy use. Data Protection for SQL uses the dedicated backup application programming interfaces (APIs) supplied by Microsoft to provide a professional, comprehensive storage management solution for Structured Query Language (SQL) databases. Included are functions that allow you to automate scheduled

backups; perform file-, group- and set-type backups; maintain multiple versions of your SQL database and transaction log backups; and restore both database and transaction log backups. You can also optimize performance with tunable, multibuffer data transfers during backups and restores, and exploit automatic expiration of old backup versions, based on version limits and retention periods as defined in the Tivoli Storage Manager server policies. Both 32-bit and 64-bit SQL databases are supported.

Oracle database support

Tivoli Storage Manager for Databases is designed to help you apply the highly automated storage-management functions of your Tivoli Storage Manager server to your Oracle databases. This goal is achieved by providing an interface between the Tivoli Storage Manager server and the Oracle Recovery Manager (RMAN) utility. Tivoli Storage Manager for Databases is

designed to fully support the RMAN backup-and-restore functionality, including full- or tablespace-level backups when the database is online or offline, as well as incremental backups that transfer only changed blocks. Backups of the archive log files associated with your databases can also be performed.

Tivoli Storage Manager for Databases is designed to support the use of the duplex-copy feature available in RMAN, making it possible to send a backup to two separate storage tapes simultaneously. However, the simultaneous copy feature in Tivoli Storage Manager server is designed to provide a more-efficient mechanism for obtaining duplicate copies and is the recommended approach. Added capabilities include the ability to optimize performance with

tunable, multibuffer caching during backups and restores (similar to Microsoft SQL) and a synchronization utility to reconcile inventory between the Tivoli Storage Manager server and the Oracle catalog.

Informix database support

Tivoli Storage Manager for Databases is designed to help you apply the automated storage management functions of your Tivoli Storage Manager server to Informix databases. This is achieved by providing an interface between the Tivoli Storage Manager server and the Informix ON-Bar utility. Tivoli Storage Manager for Databases helps support capabilities such as the use of parallel sessions for both backups and restores. This can help you use network resource efficiently during regular backups and can help you minimize the time required to complete a restore of your Informix database.

Benefits of IBM Tivoli Storage Manager for Databases

Improved application availability

- *Speeds recovery of databases, tablespaces or data files*
- *Includes database recovery in a comprehensive data disaster-recovery plan*

Enhanced storage resource utilization

- *Designed to optimize backup granularity*
- *Integrates with volume point-in-time replication services*
- *Stores backup copies in a hierarchy of low-cost storage—the specific level chosen to optimize cost against the recovery-time objective*

Enhanced storage personnel productivity

- *Creates a single point of control, administration and security for database recovery*

IBM Tivoli Storage Manager for Databases

Supported configurations

- *Data Protection for Oracle on IBM AIX®*
- *Data Protection for Oracle on Sun Solaris operating environment*
- *Data Protection for Oracle on Windows*
- *Data Protection for Oracle on Linux®*
- *Data Protection for SQL on Microsoft Windows*
- *Data Protection for Informix on AIX*
- *Data Protection for Informix on Sun Solaris*
- *Data Protection for Informix on HP-UX: HP*
- *Data Protection for Informix on Linux for IBM @server® xSeries®*
- *Data Protection for Informix on Linux for IBM @server zSeries®*

IBM Tivoli Storage Manager for Databases supports many leading vendor products. The list is dynamic and extensive. Please visit our Web site to access the most current list and other details at:

ibm.com/software/tivoli/products/
storage-mgr-db/platforms.html

For more information

To learn more about IBM Tivoli Storage Manager for Databases, visit:

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