IBM TS3500 Tape Library

A highly scalable, automated tape solution addresses data protection and long-term retention

Highlights

- Support highly-scalable, automated data retention on tape

- Deliver extreme scalability and capacity

- Provide up to 2.25 exabytes (EB) of automated, low-cost storage under a single library image

- Enable data security and regulatory compliance via support for tape drive encryption and write-once-read-many (WORM) cartridges

IBM® TS3500 Tape Library is designed to provide a highly-scalable, automated tape library for mainframe and open-systems backup and archive that can scale from midsized to large enterprise environments.

Automates solutions for open and mainframe environments

TS3500 continues to lead the industry in tape drive integration with features such as persistent worldwide name, multipath architecture, drive and media exception reporting, remote drive and media management and host-based path failover. The L23 and D23 frames support IBM TS1150, IBM TS1140, IBM TS1130, IBM TS1120 or IBM 3592 J1A tape drives. The L53 and D53 frames support Linear Tape-Open (LTO) Ultrium tape drives. L-frame models support improved cartridge handling, hot-swappable drive packaging and the option of an additional 16-slot I/O station. Mixed media is supported by combining LTO Ultrium tape drives and TS1150, TS1140, TS1130, TS1120 or 3592 J1A tape drives within the TS3500 library, frame by frame.

TS3500 supports IBM z Systems™ when used with the IBM TS7700 family of virtual tape servers. These systems enable z Systems hosts to access the TS3500 cartridge inventory and allow connection to TS1150, TS1140, TS1130, TS1120 and 3592 J1A tape drives.

Offers high-capacity, high-density, low-cost storage

Storage requirements are increasing in organizations due to the growing use of cloud, mobile and social media technologies. Data retention and protection policies further increase these demands. At the same time, available floor space in data centers is diminishing. To help manage these conflicting issues, TS3500 supports storage-only library frames with patented, high-density slots that can significantly increase a library's total capacity. These frames contain multiple tiers of cartridge slots, yet have the same physical footprint as L and D frames. When configured with high-density frames, TS3500 can store up to 300 PB of compressed data with LTO cartridges, or up to 450 PB of compressed data with 3592 cartridges.

TS3500 supports IBM Tape Library Connector (shuttle connector), which allows single or multiple interconnection of library strings to form a complex of up to 15 libraries with a total capacity of up to 2.25 EB of data and up to 2,880 tape drives for storing and managing vast amounts of information in an automated fashion.

Helps ensure high availability

TS3500 Tape Library can be ordered with a dual-accessor model option to help increase mount performance and overall system reliability and availability. TS3500 Model HA1 enables two robotic accessors to operate simultaneously in configurations from two to 16 frames.

Includes advanced features

TS3500 Tape Library is designed with a number of advanced features to deliver cutting-edge performance and long-term value. Highlights include:

- Flexible library capacity with up to 192 drives in up to 16 TS3500 frames, and up to 15 libraries interconnected in a library complex
- Simultaneous attachment of servers and applications to logical library partitions
- Remote management with a web-based interface for library control and configuration

- Simple Network Management Protocol (SNMP) query and trap functionality
- Automatic control path and data path failover to support improved continuity and disaster recovery
- Redundant control paths, grippers, power supplies and AC feeds for enhanced availability

The available Advanced Library Management System feature supports dynamic storage management, enabling users to create and change logical libraries dynamically and configure any drive into any logical library.

Supports encryption and WORM media

To keep information confidential if backup tapes are lost or stolen, TS3500 supports TS1150, TS1140, TS1130 and TS1120, as well as LTO Ultrium, tape drive encryption. These tape drives include data encryption capabilities within the drives, helping to avoid the need for host-based data encryption—and the resulting drain on host performance—or the use of specialized encryption appliances.

The IBM Security Key Lifecycle Manager component for Java platforms can help generate and manage encryption keys for TS1150, TS1140, TS1130, TS1120 and LTO Ultrium tape drives across the enterprise. This feature uses standard key repositories and supports three different encryption key-management methods: application-managed, system-managed or library-managed.

IBM TS1150, TS1140, TS1130, TS1120 and LTO Ultrium tape drives can also support WORM LTO media.
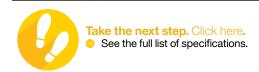
Integrates with powerful software

Further enhance the power of TS3500 by integrating it with industry-leading storage management solutions, such as IBM Spectrum Protect™ and a wide array of other storage software.

Centralizes tape management

IBM offers a wide range of management software options for TS3500. The following table lists a subset of the software options, some available as downloadable files at **ibm.com**.

IBM TS3500 Tape Library at a glance	
Management software	IBM TS3500 command-line interface (CLI) IBM Security Key Lifecycle Manager IBM Tape System Library Manager Rocket Servergraph
Frame definition	**L23**—Base frame for IBM TS1150, IBM TS1140, IBM TS1130, IBM TS1120 or 3592 tape drives **D23**—Drive-capable and storage expansion frame for TS1150, TS1140, TS1130, TS1120 or 3592 tape drives **S24**—Storage-only expansion frame for 3592 cartridges **L53**—Base frame for LTO **D53**—Drive-capable and storage expansion frame for LTO **S54**—Storage-only expansion frame for LTO cartridges **HA1**—High-availability service bay frame for use with the dual-accessor feature **SC1**—Library strings shuttle connector
Tape drive types	TS1150, TS1140, TS1130, TS1120 or 3592 tape drives or LTO Ultrium 7, 6, 5, 4, 3, 2 or 1 tape drives

Why IBM?

The performance and availability of your storage environment can either enhance or hamper your business processes. That's where IBM comes in. As a market leader in the storage industry, IBM can help you handle the challenges, whether you are a small to midsized company or a large enterprise.

Innovative technology, open standards, excellent performance, and a broad portfolio of proven storage software, hardware and solutions offerings are just a few of the reasons you should consider storage solutions from IBM, including IBM TS3500 Tape Library.

For more information

To learn more about IBM TS3500 Tape Library, please contact your IBM representative or IBM Business Partner, or visit: **ibm.com**/systems/storage/tape/ts3500

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