StorageTek Linear Tape File System (LTFS) Software

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Accessing files from tape is easier than ever, with Oracle's StorageTek Linear Tape File System, Library Edition and StorageTek Linear Tape File System, Open Edition. Oracle enables data centers of all sizes to read and write files in a self-describing format, in much the same way files are written to disk and flash storage devices. Oracle's linear tape file system (LTFS) portfolio provides a file system interface that allows users to drag and drop files between tape cartridges and tape libraries and between tape storage and disk storage devices, without specialized, expensive tape backup or archive software.

SIMPLE, OPEN, AND AFFORDABLE DIGITAL FILE STORAGE

KEY FEATURES

- Ability to read and write to data on tape in a self-describing format
- Direct access to files on tape
- Compliant with ISO/IEC 20919:2016 Information technology – Linear Tape File System (LTFS) Format Specification
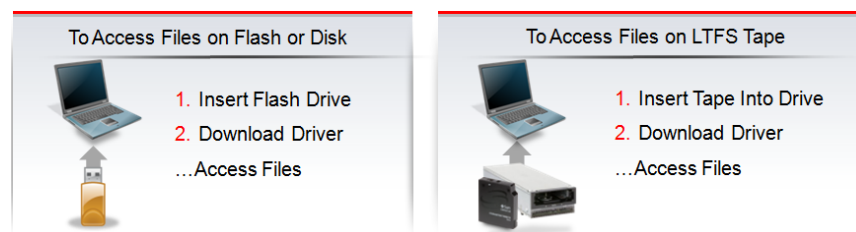- Open LTFS format reflects collaborative industry development

KEY BENEFITS

- Simplify storage management— reduce complexity with a simple file system interface and drag-and-drop ease of use
- Improve efficiency—leverage standard file system interfaces to incorporate into your current workflows
- Reduce TCO—migrate data from disk-only solutions to a tiered solution that includes tape
- Lower cost of deployment—avoid purchase of backup or archive software applications

Simplify File Access

The release of the LTFS format simplified user access to files on tape. Prior to the release of LTFS technology, files could not be accessed directly from tape; there was always a requirement to stage the data on another tier of storage for retrieval or to purchase an application to manage and archive your files. With LTFS, files may be retrieved directly from tape without the need for a backup or archive application or the need to stage the data on another tier of storage. Because LTFS writes data in an open format, anyone with a compatible tape drive can download an LTFS driver—Oracle's driver is StorageTek Linear Tape File System, Open Edition—and read an LTFS tape without an archive application or assistance from any other software. Files that are stored in an LTFS format on tape can be accessed just as if the files were stored on disk or flash.

To Access Files on Flash or Disk
1. Insert Flash Drive
2. Download Driver
…Access Files

To Access Files on LTFS Tape
1. Insert Tape Into Drive
2. Download Driver
…Access Files

Share Content Easily

Storing files in the LTFS self-describing format enables users to share content with ease. With Oracle's LTFS software, users can create/capture files at one location and send them to another location for editing, all on tape. Historically, files were shipped on disk and flash devices, but now that tape supports self-describing formats, tape has become the best option for file transport.

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Tape is a superior transport option because it does not have the limitations of disk platters, which are subject to failure due to excessive vibrations during transport. Additionally, when tape is part of any storage workflow, you can realize significant cost savings.

Furthermore, Oracle's LTFS software complies with ISO/IEC 20919:2016, the Information technology – Linear Tape File System (LTFS) Format Specification, which defines the LTFS format requirements for interchangeable media. The international industry standard provides reassurance that the open and self-describing nature of LTFS is preserved both now and in the future.

Reduce Management Complexities and Constraints

StorageTek Linear Tape File System, Library Edition is based on the self-describing format of StorageTek Linear Tape File System, Open Edition, and it lets you use tape without the management challenges of legacy tape operations. Your staff members can manage files on tape using the same, familiar file management services and structures they use for disk and flash, and users can access archived files without using specialized tape applications. With this software, managing data on tape requires no special skills or training.
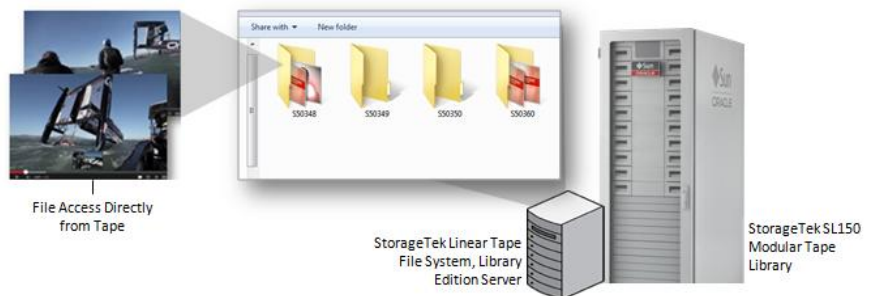

Further, StorageTek Linear Tape File System, Library Edition improves workflow efficiency. Users can drag and drop files among tape storage, flash storage, and disk storage devices without the use of specialized or expensive tape backup or archive software. Another time-saving step is that you don't have to remount tape cartridges to retrieve index data or cartridge information.

Capitalize on the Cost Advantages of Tape Storage

When you use StorageTek Linear Tape File System, Open Edition and StorageTek Linear Tape File System, Library Edition, you can significantly lower overall storage TCO. By deploying a simple interface to your files stored on tape, you no longer need to purchase expensive proprietary backup and archiving applications to access data on tape. By removing the need for additional software, tape storage solutions increase their total cost of ownership advantage over disk and flash.

How LTFS Technology Works

In order to present a complete file image to a user, there are two types of data that need to be stored. First, the *file metadata*, which contains the file structure, file names, file format, and other data elements that are indexed to simplify finding and accessing data. Second, the *file data*, which is the raw file content.
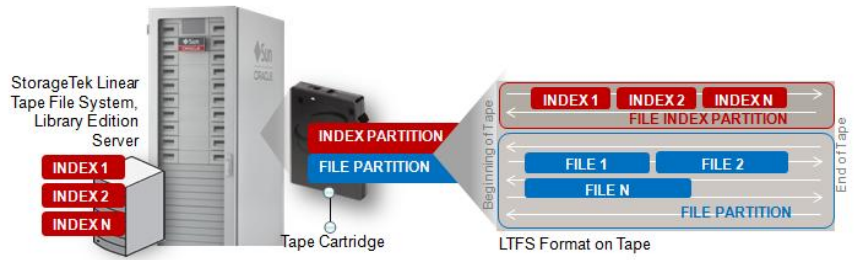
A tape that is LTFS-formatted is physically split into two partitions. The smaller of the two partitions, at the beginning of the tape, holds all of the file metadata for all of the files on the tape. In the metadata partition, files are stored in a hierarchical directory structure. The rest of the tape, the second partition, is dedicated to the file data, as tape storage has done for decades.

When a piece of tape media is loaded into a tape drive, the complete file folder image is displayed. The file structure is pulled from the first partition, and the raw file content is accessed from the second partition.

Visit the Open Source Download Site

Visit http://oss.oracle.com/projects/ltfs/ for more information and to access Oracle's open source StorageTek Linear Tape File System, Open Edition software.

Visit the Oracle Software Delivery Cloud

Visit https://edelivery.oracle.com/ for more information and to access a 30-day free trial of Oracle's StorageTek Linear Tape File System, Library Edition software.

STORAGETEK LINEAR TAPE FILE SYSTEM,
LIBRARY EDITION 1.0.4.03 SOFTWARE

Software Requirements

- *Oracle Linux 6, Update 5 for x86_64*
- *Support for Co-Hosting ACSLS 8.4 & LTFS, Library Edition 1.0.4.03 on a Server*

Supported Tape Libraries

- *StorageTek SL150 Modular Tape Library*

Supported Tape Drives

- *StorageTek LTO 7 tape drive from IBM*
- *StorageTek LTO 6 tape drive from HP*
- *StorageTek LTO 6 tape drive from IBM*
- *StorageTek LTO 5 tape drive from HP*
- *StorageTek LTO 5 tape drive from IBM*

Supported Clients OS

- *Oracle Linux* - *SUSE Linux Enterprise Server*	- *Windows* - *Red Hat Enterprise Linux*

Supported File Interfaces

- *CIFS*
- *POSIX*

Server Platforms

- *RAM 32 GB (per every 2 drives)* - *1- 8 GB FC Port* - *1- Front End 1 GB Ethernet Port*	- *Server Capacity: 1 TB* - *Assigned Static IP Address* - *FC HBAs*

LTFS Formats

- *Format 2.2.0*

STORAGETEK LINEAR TAPE FILE SYSTEM, OPEN EDITION SOFTWARE

Software Requirements

- *Oracle Linux 6.5 x86_64*
- *Oracle Linux 6.4 x86_64*
- *Oracle Linux 5.5 x86_64*
- *Oracle Solaris 11.1, U12.5, x86 & SPARC*
- *Oracle Solaris 11.1, U13.6, x86 & SPARC*
- *Oracle Solaris 11.2, x86 & SPARC*
- *Oracle Solaris 11.3, x86 & SPARC*

Supported Tape Drives

- *StorageTek T10000D tape drive*
- *StorageTek T10000C tape drive*
- *StorageTek LTO7 tape drive from IBM*
- *StorageTek LTO6 tape drive from HP*
- *StorageTek LTO6 tape drive from IBM*
- *StorageTek LTO 5 tape drive from HP*
- *StorageTek IBM LTO 5 tape drive from IBM*

Server Platforms

- *Refer to Oracle's Hardware Configuration List (HCL) for respective Linux or Solaris OS*
- *Recommended minimum of 4GB of free memory per attached drive*

Supported HBAs (SAS or FC)

- *Refer to Oracle's Hardware Configuration List (HCL) for respective Linux or Solaris OS*

CONTACT US

For more information about Oracle's StorageTek Linear Tape File System, Open Edition and StorageTek Linear Tape File System, Library Edition, visit oracle.com or call +1.800.ORACLE1 to speak to an Oracle representative.

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