7 Things You Need to Know About LTFS

LTFS has impacted tape's modern role in data storage. But, what is LTFS? And more importantly, why does it matter? Here are 7 things you need to know about LTFS.

1) LTFS is a file-system

LTFS, short for Linear Tape File System, is a way of organizing data on tape that simplifies rapid file access while protecting tape data from vendor "lock-in." With LTFS, data stored on tape media appears as a file-system to end users and applications, making it much easier to organize and access specific files from tape, without attaching metadata or modifying your files. Additionally, LTFS can mean Long Term File System which is used for IBM Jaguar drives and media, presenting the same end-user benefits as LTFS used in LTO media.

2) LTFS is vendor-neutral and self-describing for full data portability

Gone are the days of vendor lock-in on tape data. LTFS is non-proprietary so that you stay in control of your data and share it with whomever you need. With LTFS, all files and metadata are self-contained on a cartridge. It's similar to a USB flash drive; any LTFS tape can be read by any LTFS drive, regardless of vendor or brand.

3) LTFS enables data partitioning for faster data access

LTFS allows tape to be partitioned into two segments for file-system organization and rapid data access. Partition 0 holds an index of the data; Partition 1 holds the actual data. This way, applications can find specific files quickly instead of reading the entire length of the tape. Users can view the contents of a cartridge and pinpoint specific files for retrieval. Just like viewing files from your Mac Finder or Windows Explorer, LTFS brings a hierarchical file-system organization to tape data.

4) LTFS uses LTO 6 and LTO 5 Tape for high reliability

As a highly reliable storage medium, LTO 5 and 6 tape cartridges are necessary for LTFS. Linear Tape Open (LTO) is a tape data storage technology that employs open-standards.

The latest version, LTO 6, offers 2.5 terabytes (TB) of native capacity and native transfer rates up to 160 MB/s. Designed for a 30 year shelf life, LTO 6 brings unmatched durability and longevity to file-based storage. IBM's Jaguar tape offers enterprise-level capacity (4 TB/tape) and performance speeds (250 MB/s) with file-level access to business-critical data.

5) LTFS integrates easily with existing applications

LTFS integrates with existing file-based applications to provide more effective tape management. The LTFS software for LTO is available via download from major tape vendors.

6) StrongBox is the only truly enterprise LTFS archive

Crossroads StrongBox is a network-attached storage (NAS) archive appliance that leverages LTFS for long-term, always accessible storage. Unlike other LTFS solutions, no proprietary software or applications are necessary to access StrongBox data – all you need is an LTFS drive. StrongBox harnesses the cost-efficiency of LTFS tape paired with an internal disk cache that optimizes performance and supports multiple, concurrent read and write operations.

7) LTFS helps minimize storage costs and environmental footprint

By using LTFS-based storage, organizations can reduce power consumption costs by up to 95%.* With high capacities and low error rates, LTO and Jaguar allow more data to be stored in smaller physical space while reducing the spinning, cooling and operational costs associated with disk storage.

*As compared to a comparable amount of data stored in a disk-only archive. "Lowering Long-term Archive Storage Costs with Crossroads Systems StrongBox," Brad Johns Consulting, 2013

What is StrongBox?
StrongBox is a shared storage solution purpose-built for data archiving and preservation. Using Linear Tape File System (LTFS) technology and intelligent storage architecture with standard file systems (CIFS/NFS), StrongBox empowers online, all the time file availability with uncompromised data protection, full data mobility, non-proprietary file storage and significant cost-savings. StrongBox unifies your archive - past and present - while providing seamless scalability and reliability for the future.

Crossroads Systems   11000 North MoPac Expwy. Ste. 100   Austin, Texas 78759   866.289.2737   512.349.0300   sales@crossroads.com