



LINEAR TAPE FILE SYSTEM (LTFS)

First introduced with LTO-5 technology in 2010 and later adopted by SNIA in 2013, The Linear Tape File System (LTFS) is an open software specification that allows for new, simple ways to access data on tape.

How it works: LTFS defines the organization of data on the tape into a directory structure, much like you'd use to access files on a thumb or disk drive. It's a self-describing tape format, which means that you don't need to rely on proprietary backup software of any kind.

LTFS uses the partitioning feature that's available on LTO generations 5, 6, 7 and 8. With the use of partitioning, tape is divided "lengthwise" into two sections, or partitions. The smaller partition holds the index, which includes the file system information and metadata that provides details about the files contained in the second partition. When the tape is inserted, the index is quickly copied from the first partition to the workstation or server memory to deliver simple, fast access to the files that you need.

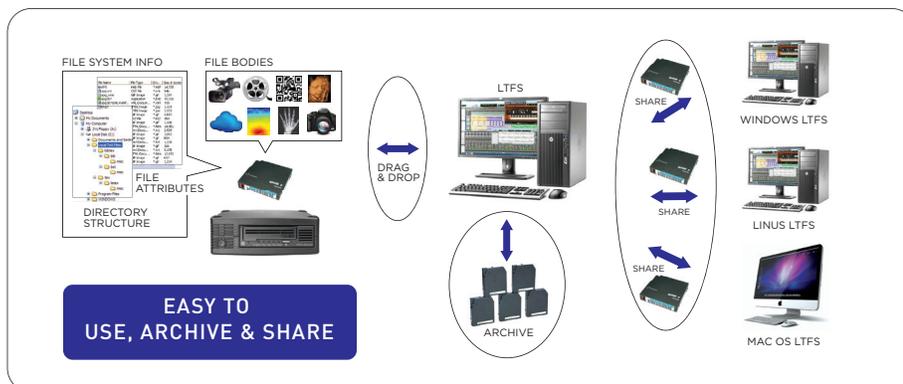
Benefits: With self-describing tape, complexity in data management is reduced. It allows you to view contents of the tape in the OS browser directory tree. And since it's open source software and not proprietary, it's easily sharable and increases data portability.

Beyond simplified backup and archiving with direct access to files from your desktop, LTFS gives tape new capabilities where alternative technologies had once been your only choice. You can share content between users working in different environments, allowing for remote data exchange. LTFS simplifies data interchange across workflows, providing for unified organization-wide file sharing. It's independent of any hardware or software platforms, which means that recovery from disaster is faster and simpler than ever before. And for digital archiving and asset retention, it's the leading choice with easier to identify and access files after years of storage.

LTFS opens the door to many new uses for tape. Video producers are turning to tape for simple and cost-effective archiving and workflow of high-definition digital content. Large and less frequently accessed files required for big data analysis and medical imaging are more cost-effectively archived on tape over a longer period of time. Any industry where vast amounts of data are being collected and stored - digital surveillance, oil/exploration, cold storage for cloud service providers and banking for example - can benefit from LTO tape with LTFS.

Key Facts

- Introduced with LTO-5 technology in 2010, adapted by SNIA in 2013
- Open software specification
- Self-describing tape format
- Defines organization of data into directory structure
- Makes finding and accessing files as easy as using a thumb or disk drive
- Allows for easy way to share content between users



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