Article published on March 13th 2012 | Software

Linear Tape-Open, abbreviated as LTO, is a magnetic tape data storage technology. It was originally developed in the late twentieth century as an open standards alternative to the proprietary magnetic tape formats that were available at the time. The standard form-factor of LTO technology goes by the name Ultrium, the original version of was released in 2000. This could hold 100 GB of data in a cartridge. A new version of this linear tape was released in 2010, which can hold 1.5 TB in a cartridge of the same size.

LTO Ultrium tape is laid out with four wide data bands sandwiched between five narrow servo bands. The latest linear tape-open that is LTO-3 has write once and read many or in short WORM capability. This is normally used for legal record keeping. A linear tape-open 3 or later drive will not erase or overwrite data on a WORM cartridge, but will read it. As for its cartridge, Compliance-Verified licensed manufacturers of LTO technology media are EMTEC, Imation, Fujifilm, Maxell, TDK and Sony. These companies under contract manufacture all other brands of media. The colors of LTO Ultrium cartridge shells are mostly consistent, though it is not formally standardized. HP is the notable exception, which uses various colors. Sometimes different manufacturers use similar color, rather than using identical colors. These colors include slate blue and blue-gray, green, teal, and blue-green.

Every LTO cartridge has tape storage system and has a cartridge memory chip inside it. It can be either read or written at a single time. Linear Tape-Open drives come with a cartridge memory reader in it though external readers are available. The LTO cartridge label uses the bar code symbol of USS-39. Although keeping a tape drive clean is important, normal cleaning cartridges are abrasive and frequent use will shorten the drive's lifespan. LTO drives have an internal tape head cleaning brush that is activated when the drive senses that it requires cleaning and when a cleaning cartridge is inserted. The magnetic servo tracks on the tape are factory encoded. Using a bulk eraser or exposing the cartridge to a strong magnetic field will erase the servo tracks along with the data tracks, rendering the cartridge unusable. However, the tape drives use a strong error correction algorithm that makes data recovery possible when lost data is within one track. As of 2011, the cost of an LTO-5 drive taking tapes of up to 1.5 TB capacities was about US$1800. The presence of five certified media manufacturers and four certified mechanism manufacturers has produced a competitive market. This has led to attractive prices for customers and high sales volumes for manufacturers.

One of the advantages of Linear Tape-Open is when we link it with active archive, which is a combined solution of open systems applications, disk, and tape hardware that allows users to access all of their data, and gives you an effortless solution that stores and manages all of your data. LTO tape and active archiving is enabling an emerging solution for cloud-based medical record and image archiving.

Article Source:
http://www.articleside.com/software-articles/features-of-linear-tape-open.htm - Article Side

Cross Roads - About Author:
Crossroads StrongBox is designed to address the need for a low cost and highly reliable a LTFS, presenting itself as traditional network-attached storage-NAS while leveraging the new a LTFS LTO.

Article Keywords:
LTFS,LTFS LTO,Linear Tape File System,Active Archive.

You can find more free articles on Article Side. Sign up today and share your knowledge to the community! It is completely FREE!