Tape and Disk Continue to Thrive Together as Two-Thirds of Storage Environments Rely on Combined Solution, Study Finds

- Storage Managers in Disk-Only Environments Increasingly Recognizing Value of Tape as More Than 60 Percent Plan to Add Tape Back into the Storage Infrastructure
- Tape-Only Environments Increasing Use of Tape

SILICON VALLEY, CALIF. — (April 21, 2009) — The Linear Tape-Open (LTO) Program and its Technology Provider Companies, HP, IBM Corporation and Quantum Corp, today released survey results showing that 66 percent of storage environments utilize a tiered storage infrastructure of disk and tape to address their storage requirements for performance, data retention compliance, disaster recovery and total cost of ownership.

The survey, conducted in the fourth quarter of 2008, focused on the views of more than 200 network administrators and mid-level technology specialists at mid- to large-sized companies throughout the United States.

“Those employing disk-based approaches are clearly looking to include tape in their backup and archiving strategies to address data protection and cost control objectives,” said Cindy Grossman, VP, Tape and Archive Systems, IBM Corp. “LTO tape technology offers a cost-effective solution with proven reliability, high capacity and high performance.”

According to the survey, managers currently operating disk-only systems are increasingly realizing the value of tape as more than 60 percent stated their intent to add tape back into the storage hierarchy, and of those respondents, 78 percent plan to add tape storage solutions within the next 12 months. Nearly 40 percent of managers operating tape-only environments are forecasting increased usage of tape, up from 22 percent last year.

“The survey suggests that storage managers in disk-only environments are seeking a cost-effective and reliable solution to provide an additional layer of backup and data protection to their current system -- and they are increasingly turning to tape as an answer to
that dilemma," said David Geddes, senior vice president and partner at Fleishman-Hillard Research, who oversaw the study.

LTO-4 tape technology provides up to 800 GB of capacity (equivalent to 1.6TB assuming 2:1 compression) per cartridge and transfer rates of up to 120MB per second (equivalent to 240MB assuming 2:1 compression) for offline and offsite protection against intentional and unintentional data corruption. The format provides support for WORM (Write-Once, Read-Many) tape functionality that allows companies to cost-effectively store data in a non-rewriteable format to help address regulated or non-regulated data retention needs. For security, LTO format generation 4 technology provides tape drive level-based encryption to enable the writing of encrypted data to the LTO-4 tape cartridge to help secure data during transportation and at rest.

LTO format generation 4 drives support backwards-compatible read-and-write capability with LTO generation 3 cartridges and backward read capabilities with LTO generation 2 cartridges, to help protect the investment customers have made in LTO products, and to provide easier migration for customers desiring to take advantage of the unique benefits of LTO-4.

**How to License LTO Ultrium Technology**

The LTO Program has historically offered media and drive manufacturers several different license packages – from enhanced packages that provide the specifications and licenses to manufacture LTO Ultrium products, to basic packages providing LTO format specifications.

Buyers seeking LTO Ultrium format-compliant products should look for the LTO Ultrium format compliance verification trademarks on both tape drives and data cartridges. Storage and media manufacturers interested in licensing LTO formats may obtain information by contacting the LTO Program through www.ultrium.com/contact.php.

**About Linear Tape-Open (LTO)**

The LTO Ultrium format is a powerful, scalable, adaptable open tape format developed and continuously enhanced by technology providers HP, IBM Corporation and Quantum Corp (and their predecessors) to help address the growing demands of data protection in the midrange to enterprise-class server environments. This ultra-high capacity
generation of tape storage products is designed to deliver outstanding performance, capacity and reliability combining the advantages of linear multi-channel, bi-directional formats with enhancements in servo technology, data compression, track layout, and error correction.

The LTO Ultrium format has a well-defined roadmap for growth and scalability. The roadmap represents intentions and goals only. There is no guarantee that these goals will be achieved. Format compliance verification is vital to meet the free-interchange objectives that are at the core of the LTO Program. Ultrium tape mechanism and tape cartridge interchange specifications are available on a licensed basis. For additional information on LTO, visit www.trustlto.com and the LTO Program Web site at www.ultrium.com.

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