For Immediate Release

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LTO PROGRAM ANNOUNCES WORM SPECIFICATION FOR LTO GENERATION 3 TECHNOLOGY

Addendum to LTO3 Specification Allows Licensees to Offer WORM Products

SILICON VALLEY, CALIF. — (Oct. 25, 2004) — After extensive market and end user research, Certance, HP and IBM Corporation – the three technology provider companies (TPCs) of the LTO (Linear Tape-Open) program – today announced the availability of an enhancement to the LTO Ultrium format generation 3 specification that will provide LTO technology manufacturers the opportunity to offer Write Once, Read Many (WORM) functionality for the LTO Ultrium format generation 3.

Government regulations such as SEC Rule 17a-4, the Health Insurance Portability and Accountability Act and the Sarbanes-Oxley Act have established guidelines on how long data be retained, kept secure and remain unaltered.

“Organizations are seeking more affordable ways to comply with regulatory requirements that can require data to be stored and unaltered for seven to 10 years or more,” said Bob Wilson, vice president, Nearline Storage Division, HP. “The WORM functionality in the LTO generation 3 products will play a significant role in addressing end users’ needs for cost-effective long-term data archiving.”

The LTO Ultrium format generation 3 specification includes the ability for WORM enabled and non-WORM enabled drives to co-exist. The LTO program implementation might also provide users with a very cost effective means of storing data in a non-erasable, non-rewriteable format.

"The use of tape to archive unalterable data for up to several decades is unarguably the most cost-effective approach to place the data offline and store it in a secure environment," said Bob Abraham, Freeman Reports.

Robust algorithms using the Cartridge Memory (CM), in conjunction with low level encoding that is mastered on the tape media at time of manufacture, are designed to prevent tampering. In addition, appending data at the end of a write-once read-many (WORM) cartridge which was previously written to is supported, thus allowing customers to take full advantage of the high capacity tape media.

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The LTO Ultrium format generation 3 doubles storage capacity over generation 2, increasing to 800 GB compressed from 400 GB (assuming a 2:1 compression). Transfer rates improve to 80-160 MB per second (MB/s) from 40-80 MB/s in generation 2 compressed (assuming a 2:1 compression). The LTO Ultrium format generation 3 drives also offer backwards-compatible read-and-write capability with the Ultrium format generation 2 cartridges and backward read capability with generation 1 cartridges, helping to protect the investment customers have made in LTO technology.

The LTO Ultrium format is the only super drive technology based on an open specification, providing the benefits of competition while supporting data interchange. With an impressive roster of over 30 licensees, the LTO specification is available for license to any manufacturer giving users the unique ability to choose from a number of tape drive and data cartridge offerings. This pro-competitive environment fosters technological innovation, competitive pricing, and multiple sources of compatible products.

**How to License LTO Ultrium Technology**

The LTO program offers several different license packages – from enhanced packages that provide the specifications and licenses to manufacture Ultrium products, to basic packages, providing Ultrium format specifications and guidelines for interchangeability.

Buyers seeking Ultrium format-compliant products should look for the Ultrium format compliance verification trademarks on both tape drives and data cartridges. Storage and media manufacturers interested in licensing LTO technology may obtain information by contacting the Law Offices of Ladas & Parry at (323) 934-2300, or by e-mail at LTO_INFO@ladasparry.com.

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

LTO technology is a powerful, scaleable, adaptable open tape format created by technology providers Certance, HP, and IBM Corporation to help meet 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 – a roadmap that projects a doubling of speed and capacity with each new generation. Independent 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 licensee basis. For additional information on LTO technology, visit the LTO Program Web site at [www.ultrium.com](http://www.ultrium.com).

Note: Linear Tape-Open, LTO, the LTO logo, Ultrium, and the Ultrium logo are trademarks of Certance, HP and IBM in the US and other countries.

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