



## LTO NewsBytes



### The Storage Dilemma - What are the best practices for backup and data retention?

Not all data is considered equal – in fact, this in itself is the reason why there's not one simple solution to all data needs. In our last edition of LTO NewsBytes, we outlined the third of five best practices: Mitigate Risk, where it was noted that it's not just about the reliability of the technology you choose, but the overall strategy towards protecting your data. Make sure you have an off-line copy of critical data on tape so that it is not susceptible to corruption from system error, virus, hackers or other on-line threats.

#### Best Practice 4 of 5: Consider TCO

Today's IT managers need to consider all aspects when determining the overall value of a solution – not only back-up and recovery times, but also the entire cost of providing that service. Some disk solutions can provide an attractive initial acquisition cost comparison, but over the lifetime of service and for long term data retention disk may not be the most cost-effective solution for all needs. A blend of disk and tape may be best to optimize performance, long term data retention, data protection and total cost of ownership.

Let's look at some of the things that should be considered:

#### Energy costs

Tape systems require less electricity than similar capacity disk systems. Spinning disks require energy for power and cooling. Tape systems in contrast, require a fraction of that energy when writing and reading data and a cartridge in a slot or on a shelf requires no power. The Clipper Group compared the total cost of ownership in a 5 year study between a SATA disk system and an LTO-4 tape library system. They measured acquisition, space and energy costs to store data in a growing 5 year archive. They found that the cost for archiving on the disk system was 23 times more expensive than the tape system and had nearly 300 times more energy costs than tape. (You can read about it in the white paper entitled "[Disk and Tape Square Off Again](#)")

#### Physical Storage Space

The high capacity and small footprint of tape provides a cost advantage that's often overlooked, particularly in longer-term archival and offsite storage scenarios.

#### Management

With advanced backup/archive management software and advancements in automated tape libraries, the resource costs required for managing and maintaining disk or tape based data protection solutions are comparable.

#### Scalability

As data volumes grow, scalability of storage becomes an important factor. How much does it cost to expand your storage system, will it add to management overheads and complexity? Tape library systems have an advantage. Their capacity is infinitely scalable; you don't need to add more drives to grow, simply add cartridges.

#### ...Don't Gamble With Your Data

To see all of the best practices and more about the roles of disk and tape for backup and data protection, visit the [Ultrium.com](http://Ultrium.com) web site for a white paper entitled "The Evolving Role of Disk and Tape in the Data Center" by Sylvatica Consulting and stay tuned for the next edition of LTO NewsBytes highlighting the last of the five best practices.



### Free Webinar - Tape Fallacies Exposed!

There's been quite a bit of misinformation about tape over the past several years. Join a free informative eSeminar on Dec. 15 where you'll hear David Hill of the Mesabi Group shed light on the most common misperceptions about tape. He will also discuss how tape and disk can be balanced in a strategic blend to address storage objectives. A copy of the accompanying [white paper](#) is also available.

### Learn More About Best Practices

View a replay of an eSeminar where you'll hear Debbie Beech of Sylvatica discuss backup and long-term storage best practices that organizations should be using to balance the evolving roles of disk and tape technologies as part of a comprehensive, tiered storage architecture to address these complex needs. The accompanying [white paper](#) is also available at the [LTO Ultrium Web site](#).

### What About Encryption?

Every month, companies risk data loss that could potentially expose millions of sensitive records. Data encryption can help address these issues, but how is it best applied and which tools can be utilized to address security? The answer: a [white paper](#) from Silverton Consulting provides insight into encryption methods, how to address security issues with LTO-4 encryption, and a users first-hand experience.

Use LTO-4 Technology with  
Tape Drive Encryption,  
Your Smart Bet for Data Protection!

For more details, check out white papers, articles and other useful information at [www.ultrium.com](http://www.ultrium.com)