

Long Term Data Retention – 5 Key Considerations

Managing backup and recovery in today’s environment is a multi-dimensional challenge with both near and long term business requirements. Recent technological developments in disk backup have had a positive impact on short term data retention requirements. But these improvements do not replace the need to execute and deliver on a long term data retention strategy. This tool provides 5 topics to think about as you design your long-term data retention plans:



Business and Regulatory Requirements Demand a Long-term Plan

In today’s complex regulatory landscape, companies and institutions are forced to deal with regulations like HIPAA, Sarbanes-Oxley, Bank Secrecy Act and other global regulations. The common component of each regulation is that more data needs to be stored and for longer periods of time. On top of these regulatory requirements, your business has strategic goals that need to be met.

Can this be achieved with a single technology approach?

Answer: Disk along with deduplication is great for storing data for weeks or even months but tape plays a critical role in meeting long term retention requirements and regulations because of its low total cost of ownership, low environmental impact, ability to encrypt, portability for disaster recovery, and durability.

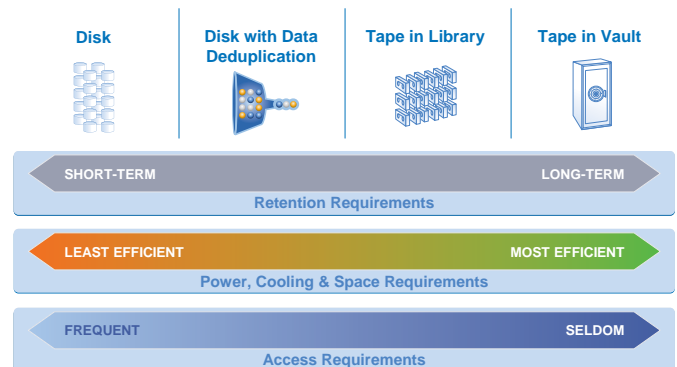


Manage and Contain Your Total Cost of Ownership (TCO)

IT budgets are not growing at any where near the pace as your data. Gartner Research reveals that global IT budget growth is expected within a modest range of 2.5% to 3.3% for 2008¹.

The challenge is how do you control and manage opex and capex costs?

Answer: Quantum recommends a multi-tiered approach of disk, deduplication, and tape technologies to meet retention requirements while reducing total cost of ownership. From a capex perspective it is important to realize that tape has a very low acquisition cost. In fact, the Clipper Group estimates that disk is 23X the cost of tape². In addition automated libraries enable you to lower operational costs by allowing you to consolidate TB’s into a single location while reducing the dollars you will spend on warranty, power and cooling.



Encrypt Your Data for Secure Long-term Retention

Over the past three years there have been over 1000 recorded data breaches, exposing more than 350 million records containing sensitive and confidential information. The ESG (Enterprise Strategy Group) has recently estimated the cost for one single breach to be up to \$165 per record. There are also a growing number of world wide data protection regulations being implemented which require companies to store information longer and require data security and client privacy.



How do you secure your data and meet new regulations?

Answer: Quantum recommends encrypting data at rest on tape. With the introduction of LTO-4 drives and the integrated hardware based encryption; data stored on tape is completely secure at levels that meet government standards. Quantum's LTO-4 based encryption and centralized encryption key manager enables users to centrally manage the security their data.



Weigh the Environmental Impacts and Minimize Power and Cooling Costs

Power, cooling, and space requirements are key issues for IT departments around the globe because of rising costs and the environmental impact. The Environmental Protection Agency recently predicted that data center power usage will double over the next five years. Disk usage is growing rapidly and it is fast becoming one of the primary power and cooling culprits in the data center.

How do you protect your data while controlling the cost of power and minimizing the impact on the environment?

Answer: The solution is to find the optimal balance of performance and cost by leveraging multiple technologies like data deduplication and tape. Deduplication helps to lower costs associated with disk backup, and tape is the cost-leader for efficient long-term archiving. The table below highlights the power, space, and cooling advantages of tape over conventional disk.

Tape is also portable and ideal for long term archiving due to its low power consumption, and once tapes are stored in a vault, the power cost is zero as they require NO power or cooling. Tape provides the most economical and green option for medium to long term data storage.

	Disk Array*	Tape Library ^	% Savings
Space	0.01 m ² /TB	0.00215 m ² /TB	78%
Power	60 Watts/TB	0.88 Watts/TB	99%
Cooling	204 BTU/TB/H	3.0 BTU/TB/H	99%

* EMC CLARiiON CX20 with 120 750GB drives

^ Quantum Scalar i2000 with 300 slots, LTO-4 drives, 2:1 compression



Simplify Management of the Entire Solution

The smartest approach to data storage is one which utilizes the strengths of disk for fast backups combined with low cost tape for longer term storage and archive purposes. **However, once you have implemented a disk and tape backup architecture how do you now manage multiple devices without complexity and ensure you can get your data back quickly?**

Answer: The solution is software that centrally manages both disk and tape devices for streamlined management and reduced IT overhead. Software that allows IT managers to manage both tape and disk devices from one convenient screen also delivers rich diagnostics, reporting, and faster trouble shooting. These features ensure that tape and disk devices are ready to provide data at any moment, which is vital as customers are storing more data over longer periods of time to comply with regulations and need to quickly retrieve archived data to meet legal requirements.

1. Gartner

"Gartner: Global IT Budget Growth Update, 1Q08".

2. David Reine and Mike Kahn, The Clipper Group Inc.

"Disk and Tape Square Off Again — Tape Remains King of the Hill with LTO-4", February 13, 2008.