Nodeum Whitepaper

How Data Can Be A Tool To Be A Leader In Your Industries ?

Many enterprises are burdened with an ever-increasing amount of unstructured data yet are confronted with shrinking budgets to manage that data growth. But the data growth and reduced budgets are only part of the problem : enterprises have a myriad of regulatory concerns, most recently GDPR, with which they need to contend. This is in addition to persistent concerns with respect to retention policy, data security and data Integrity for any given data format.

Storing data is one challenge ; accessing it quickly and effortlessly is another. New data management requirements need modern approaches. Solutions of the past encouraged adding silos of storage, but this increases the complexity of data retrieval when data is spread across many environments. A more effective, more economical and greener solution has become a must.

The question today is...
how to store massive data in decreasing the TCO ?

Context

Every enterprise is trying to determine how to manage more data growth without scaling budget or staff as well.

Henry Baltazar, an analyst from 451 Research, said in a recent report :

> *"The increasing relevancy of data management is in parallel with the ongoing growth of the sheer volume of data that enterprises must deal with."*

The good news is that there are many approaches IT can take to ease the challenges of data growth.

Let's take a look at the 4 steps, IT can use to simplify data management and to make a big impact in their organisation :

- Gain visibility
- Integrate assets
- Secondary Storages Adoption
- Automate intelligent data management

Gain Visibily

It might seem obvious, but you can't fix the problems you ignore. This makes it critical to gain in visibility of your business needs. In fact, your organization doesn't know :

- what kind of data are "Hot" and require to have the best performance storage.
- what kind of data are "Cold" and can be moved to a less costly storage resource.

Experts like IDC explain that "*over 80% of the data are unstructured, and most of our storage systems were not designed for the various of data.*"

More and more business company make mistake in their process of storage management because they storing, replicating and protecting all their data on expensive primary storage.

If you have the visibility of the data usage, you can better manage your unstructured data. Move, copy or replicate the right data to the best system.

Why ? Because it's important to control the life cycle of your data, with visibility and reporting. You are sure to take the right decision for your business because your organisation is unique.

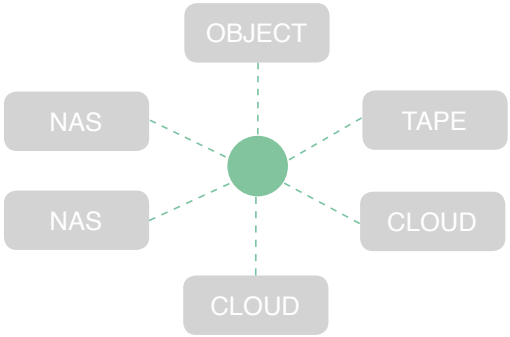
You can now easily understand what are the actions you have to do :

- Place the Hottest data on the fastest storage.
- Move faster the data that you don't use on secondary storages.
- Place the data you want to share with differents branch, colleagues... on cloud storage.

Software can now deliver this insight, using metadata to determine when files were last opened, by whom, when they were last changed, and so on. Solutions with dashboards give you a clear picture of aggregated data activity across your storage systems.

Integrate your assets

Most terabyte/petabyte-scale enterprises have significant storage sprawl. Just count how many different storage systems you have.



The challenge is that over time, the difficulty of :

- moving data means much of it is on the wrong resource for current business needs.
- managing all different legacy applications (backup, archive, cloud gateway, file analysis, ...) which are connected to all of different storage silos.

Secondary Storages Adoption

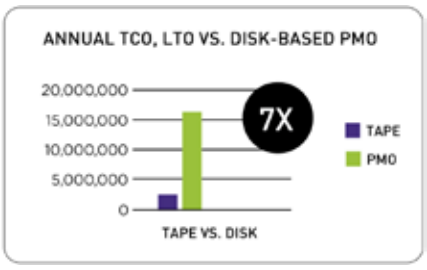
There are few better options for saving budget today than adding on-premises object or cloud storage. The challenge is how to integrate the cloud as a storage tier and move the right data off other storage. Data virtualization, metadata management and machine learning can all help make this a simple and automated process. As data gets cold, end-user can have it move off high-cost storage, but kept accessible in case it is needed again.

When adding the cloud, it's important to make sure data moved off-premises can seamlessly move back at the file level. If you are forced to rehydrate an entire volume from the cloud, you could end up paying much more than you bargained for. This is because it is generally inexpensive to move data to the cloud, but very costly to bring it back again. Making sure you can pull back data at file-level granularity will help you keep costs low while enjoying the flexibility and agility that is driving rapid cloud adoption in the enterprise.

Magnetic Tape technology is still the lowest cost for storage. Benefits are multiple :

- Initial cost : Tape offers the best cost/GB over the entire life of the data when compared to other options.
- Long-term archiving : Hidden costs like media, equipment, energy costs and floor space are significant and it is crucial to maximized cost at every opportunity while minimizing overheads.

"ESG found that there is an impressive 577% return on investment when utilizing a tape solution for long-term data protection.* ESG also reported that LTO tape is thriving and has a bright future in organizations of all sizes. Their overall conclusion was that the more data that can be preserved on tape, the lower the overall total cost of ownership (TCO).$"

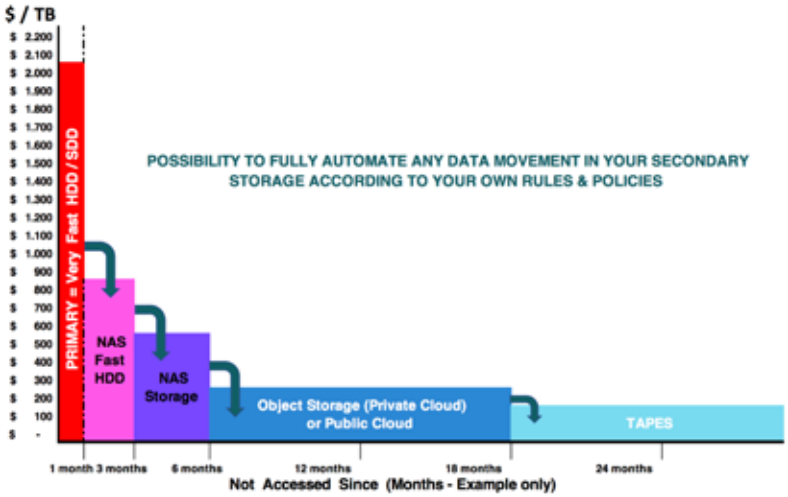


Source : * Determined by comparing TCO of LTO to a present mode of operation of all-disk storage over ten year period, when accounting for avoided costs and net-new economic improvements. Source: ESG report "Analyzing the Economic Value of LTO Tape for Long-Term Data Retention," February 2016.

Data management automation

Once you've gained insight into your data and given your applications awareness to your diverse storage resources, the final step is to automate the data management.

Today, software provides these capabilities ; metadata engine and machine learning automate data management according to IT/business defined objectives even across different hardware vendors.
We met IT departments which aren't getting more budget or more headcount to help them deal with data growth, visibility, integration, cloud adoption, and automation. The IT staff challenge is to manage strategic projects instead of spending their days working as storage manager.

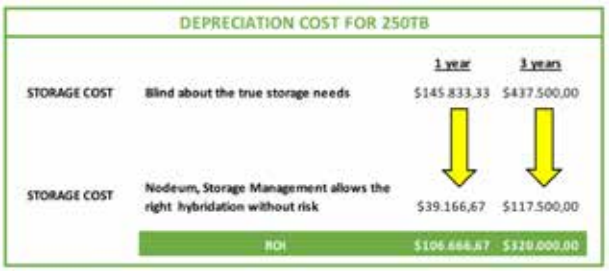


It's essential today for all enterprises to add these capabilities if they want to scale and to meet their challenges. The data are used by businesses as a tool that helps them lead their industries.

Storage TCO Reduction

Save up to 70% on Storage CAPEX and OPEX. Hybrid Storage provides limitless capacity without additional legacy software licenses. Find out how much you can save when comparing costs and benefits of major factors such as:

- Capacity
- Performance
- Current Costs
- Energy Costs
- Cost for Legacy Applications Licenses



Note : Those savings don't take into account additional savings in maintenance, electricity and IT staff productivity.

Nodeum's Unique Features

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- Hybrid Storage Management (NAS, Object, Cloud, Tape)
- Searchable content catalog
- Public RESTful API
- Policy-Based Workflow Manager
- Integration with Cloud ML/AI platforms
- Reporting & Analysis
- TCO Simulator
- Software-Defined
- Highly Scalable
- Intuitive Interface
- Metadata Management

For business driven use cases

Data Archiving
Workflow to manage data archiving without any complexity. Connect your user pipeline with archiving process. Keep it easy for your organisation

Data Protection
Secure any of your contents on the storage you want and integrate this into your day to day operation. Incremental and Full copies are available.

Data Migration
Reduce risk and lock-in in storing your data and assets in a specific storage tier. Workflow helps to move files from a storage to another one. This includes cloud provider as well.

Data Tiering
Data virtualization of any storage (NAS, Cloud, Object, Tapes) behind a virtualized file system accessible through standard protocols: NFS, SMB, S3.

Active Archive
Files are always accessible even they are moved to any secondary storage. End-Users can always use their files in a common file and folder directory.

Cloud Gateway
Implement on premise NAS gateway, get benefits of a local data caching in staying connected to any supported Cloud providers for long term retention.

Data Enrichement
Metadata injection to facilitate the search of any of your files.
Extract additional metadata in connecting to AI/ML Cloud engines.

Data Bursting
Data movement into an hybrid storage ecosystem for applications which bursts into a public cloud when the demand for computing capacity spikes.

Apply your data storage management strategy throughout the lifecycle of your data

Contact

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Recognized as **top storage solution provider in 2016 by The CIO Review magazine**

Recognized as **the company to watch in 2016 by The Silicon Review magazine**

NODEUM **is certified LTFS by the LTO Program**