IBM Storage Deep Archive

Secure and durable object data storage for archiving and online backup

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Highlights
Store any object on tape with
Deep Archive

Deep Archive on-premises
without additional software

IBM Storage Deep Archive is the next generation long-term archival solution optimized for Deep-but-Accessible data. It delivers the benefits of tape storage, in an easy-to-use, easy to integrate solution.

Leveraging the standard S3 Glacier storage class, this integrated solution simplifies data management and provides up to 38-nines of archive state durability. Additionally, it reduces carbon footprint by up to 85% and energy consumption by up to 93% compared to traditional HDD archive solutions.

IBM Storage Deep Archive offers a cost-effective and secure way to store and manage archived data, while providing full observability and control to the information security team.
No tape-specific knowledge required, and no cloud provider egress fees.

- Standard interface
- Simple administration
- Simplified Ecosystem
- Data Durability
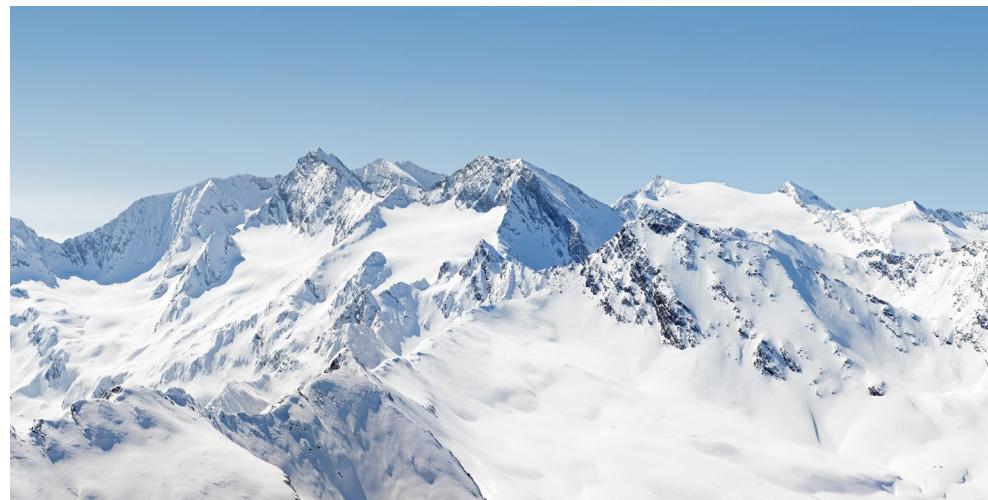
85% less

TCO compared to managed service provider deep archive
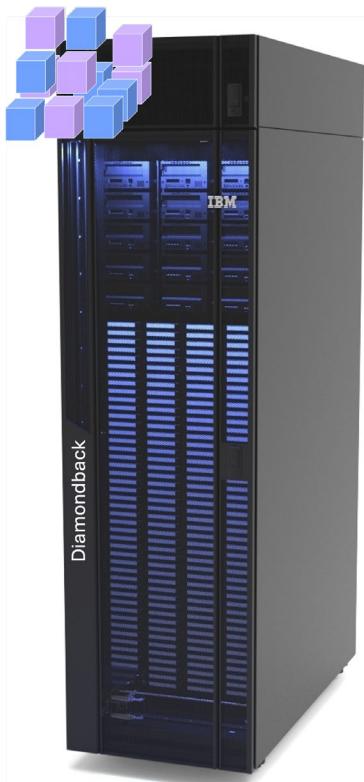
Figure1. IBM Storage Deep Archive on Diamondback

IBM Storage Deep Archive Features

Simplified Management: Standardized S3 interface eliminates tape-specific skills. Administrators can easily manage and integrate the storage system into their existing infrastructure without requiring specialized knowledge of tape storage. Standard formats ensure that data is stored in a consistent way, making it easy to access and retrieve data across different systems and applications. Additionally, automated object copy management enables multiple copies from a single "put" command, enhancing data availability and durability. This built-in capability streamlines data protection by reducing manual intervention and ensuring that redundant copies are created automatically, supporting compliance, high availability, and disaster recovery strategies with minimal administrative overhead.

Standard S3 API: Industry standard interface to tape allows you to easily leverage your existing data movers or software compatible with the S3 Glacier Flexible Retrieval storage class.

Flexible Storage Capacity: Scale up based on capacity needs.
The IBM Storage Deep Archive provides flexible capacity, allowing administrators to easily add storage capacity as needed. This eliminates the need for costly hardware upgrades and ensures that the storage system can adapt to changing data growth and storage requirements. By scaling up capacity, administrators can meet the needs of their organization without incurring unnecessary costs or complexity.

Cost-Effective: Up to 85% lower Total Cost of Ownership (TCO) compared to comparable cloud storage.

The storage system provides a cost-effective solution for archived data storage, with a significantly lower TCO compared to comparable cloud storage solutions. This reduces the financial burden of storing and managing archived data and provides a more affordable solution for organizations of all sizes.

With a lower TCO, organizations can redirect their budget to more strategic initiatives and improve their overall return on investment.

- The storage system eliminates recall and egress fees, which represents 100% cost savings over other cloud storage solutions.

- With on-premises data control, organizations can access their archived data without incurring additional fees and reduce their overall storage costs.

- This provides a more predictable and cost-effective solution for archived data storage and helps organizations better manage their storage expenses.

Data Sheet

Easy deployment: IBM installation in your datacenter or co location facility in less than a day with no tuning required.

Sustainability: Object storage energy consumption reduced by up to 97% with an 85% lower carbon footprint than comparable hard disk solutions.

Control and Security: On-premises data control.
The storage system provides on-premises data control, giving organizations full ownership and control of their archived data. Storage administrators can easily monitor and manage their storage system and ensure that their data is secure and protected. This provides a more secure and reliable solution for archived data storage and helps organizations meet their data protection and compliance requirements.

Multi-library : Multiple libraries in a single name space.
Supports up to two libraries within a single namespace, enabling multi-copy data distribution for improved resilience and business continuity without requiring any changes to source applications. It delivers exceptional reliability with a calculated 38-nines of data durability through dual-copy protection. Designed for performance and scalability, it increases native capacity to an impressive 122PB while offering enhanced bandwidth and threading capabilities to meet demanding workloads efficiently.

IBM Storage Deep Archive on Diamondback Library
IBM Storage Deep Archive is offered in conjunction with IBM Diamondback Library.
Leverage Tape Libraries benefits:
- Scalability
- Energy efficiency
- Reliability
- High-Speed Data Transfer
- Advanced Robotics

	Deep Archive Entry Configuration	Deep Archive Single library	Deep Archive Multi-library
Deep Archive Nodes	1	2	4
Tape Drives	4	up to 14	up to 28
Througuput	4.6TBhr	13.2TBhr	
Energy Consumption	As low as 16.6 watts/PB	As low as 32.03 watts/PB	
Max Storage Capacity (LTO-10 40TB)		61PB	123PB
Object Limit		2.25B	
Maximum number of buckets		6000	
Maximum objects per buckets		100 million	
Maximum object size		5TB	

Data Sheet

IBM Storage Deep Archive storage system offers a unique combination of simplicity, sustainability, and cost-effectiveness for archived data storage. With its standardized interface to tape, converged infrastructure, and flexible capacity, it simplifies data management and reduces complexity.

By choosing the IBM Storage Deep Archive storage system, organizations can confidently store and manage their archived data, while reducing costs, complexity, and environmental impact.

Why IBM?
The performance and availability of your storage environment can either enhance or hamper your business processes. IBM, a market leader in the storage industry, can help you handle these and other challenges—no matter the size of your organization.

Innovative technology, open standards, excellent performance and a broad portfolio of tested storage software, hardware and solutions are just a few of the reasons you should consider partnering with IBM to meet your storage needs.

For more information

To learn more about IBM Storage Deep Archive, contact your IBM representative
or IBM Business Partner, or visit ibm.com/products/deep-archive.

1. IBM Physical Tape Carbon impact Report 2024
2. The Sustainable Preservation of Enterprise Data, Furthur Market Research, February 2024.
3. https://aws.amazon.com/s3/pricing/