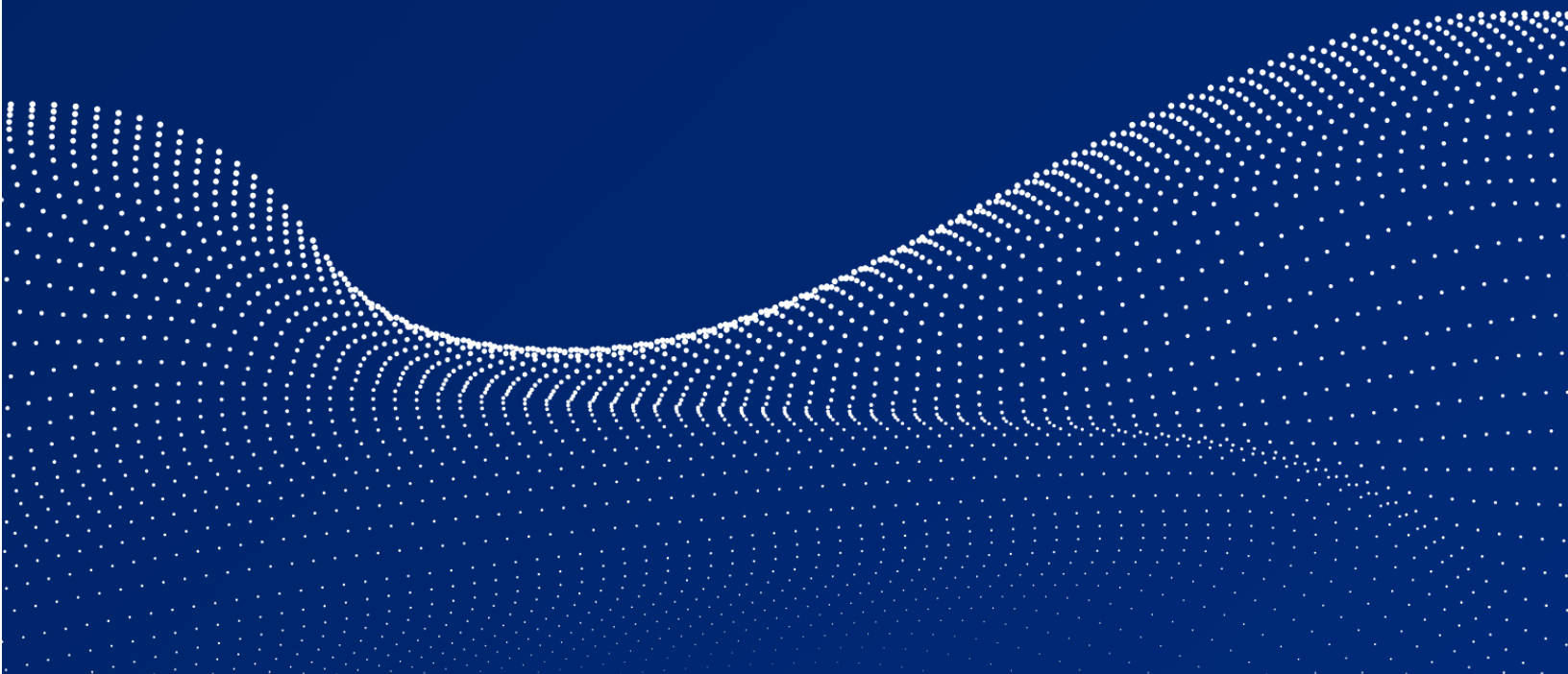




# High-Performance Data Management for Exabyte-Scale Archives



## Intended Audience

This solution brief is intended for IT architects, storage engineers, system administrators, and technical decision-makers responsible for designing, implementing, and maintaining large-scale archival and data management infrastructures. These readers are evaluating integrated hardware and software solutions for modernizing legacy archives, optimizing storage workflows, and ensuring long-term data preservation at petabyte to exabyte scale.

## Versity and Spectra Solution Overview

Spectra Logic and Versity have partnered to deliver a modern, scalable, cost-effective, and energy-efficient cold storage solution. By combining Versity's advanced software-defined data management platform with Spectra Logic industry-leading tape libraries, organizations gain a flexible and efficient solution for long-term data preservation. This solution is ideal for institutions seeking to modernize legacy archives, reduce total cost of ownership, and ensure sustained access to petabyte-to-exabyte-scale data.

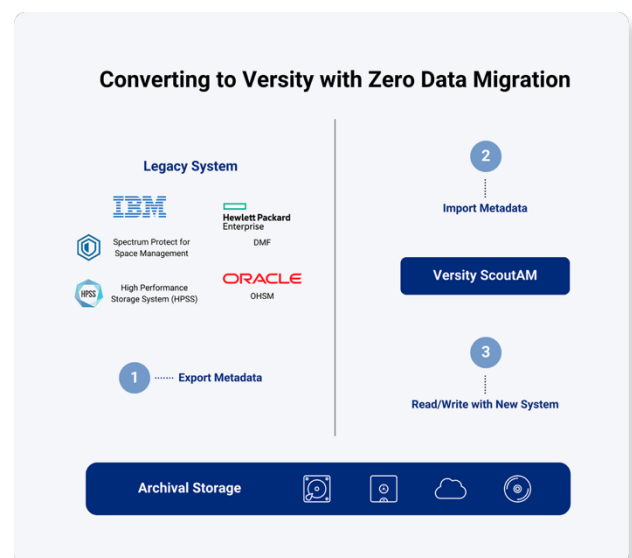
## High-Performance Data Management at Scale with Versity

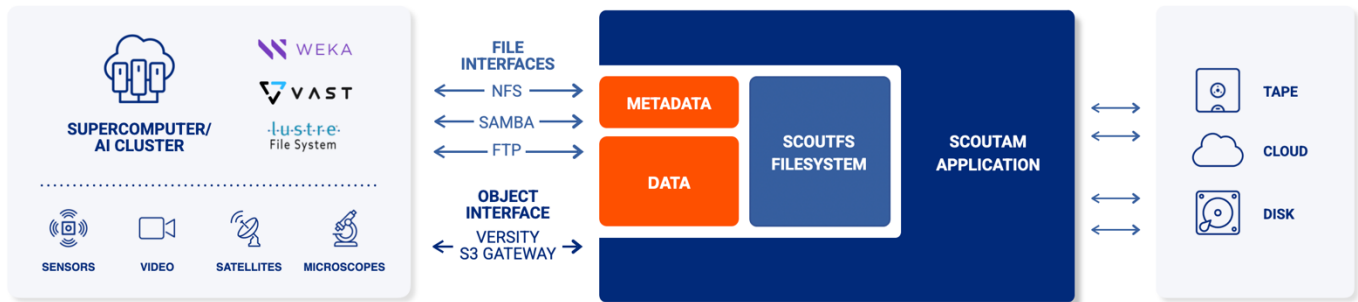
### Modern archive platform architected for exabyte scale

Versity offers a modern, software-defined platform purpose-built for managing and archiving unstructured data on a massive scale. Its architecture combines scalable metadata management, policy-driven archiving, and parallel data movement across disk, tape, and cloud, enabling efficient, cost-effective, and adaptable long-term storage.

### Seamless Migration from Legacy Archive Software

Versity's Zero Data Migration capability allows organizations to transition from legacy archive software, such as IBM HPSS, Oracle OHSM, HPE DMF, and IBM Storage Protect for Space Management, without the need to move or reformat existing data on tape. By leveraging compatible metadata and data formats between systems, Versity enables migration, preserving the existing namespace and metadata. This approach ensures seamless data access through standard interfaces and APIs, allowing users, applications, and workflows to continue interacting with the archive without interruption. The result is a smooth, low-risk transition that avoids costly and time-consuming data movement while preserving data integrity.





## Versity Product Overview

**ScoutAM** is a hardware-agnostic, scale-out software platform designed to run on high-performance servers. It features a powerful policy engine and scheduling system, enabling intelligent, automated data movement across multiple storage tiers. The ScoutAM deployment model is flexible and easily expandable. The solution begins with a single server and scales to multi-node, high-availability clusters.

## Introducing Spectra Logic Tape Libraries: Exabyte-Scale Cold Storage

With a 40-year track record of continuous innovation in protecting and preserving data for the world's largest organizations, Spectra Logic tape libraries deliver exabyte-scale capacity, low power consumption, and true air-gap security, making them ideal for integrating with Versity's intelligent, policy-based data management platform.



## Spectra Logic Tape Libraries Overview

**Spectra TFinity Library** is the world's largest capacity data storage library

- Capacity: Up to 56,400 slots & .6EB native with LTO-10 media
- Performance: 168 full-height (FH) LTO tape drives & 241.9 TB native per hour
- Partitions: 1 to 16 partitions for shared or multi-tenant environments
- Dual robotic infrastructure
- LumOS tape library management software

**Spectra Cube library** dynamically scales

- Capacity: Up to 1,670 slots & 50.1PB native with LTO-10 media
- Performance: Intermix 1 to 16 full-height (FH) and 30 half-height (HH) LTO tape drives & 1.08TB to 32.4TB native per hour
- Partitions: 1 to 16 partitions for shared or multi-tenant environments
- All components are designed for replacement in under 5 minutes
- LumOS tape management software

### Spectra Stack library dynamically scales

- Capacity: Up to 560 slots & 16.8 PB native with LTO-10 media
- Performance: Intermix 1 to 21 full-height (FH) and 42 half-height (HH) LTO tape drives & 1.08TB to 45.4TB native per hour
- Partitions: 1 to 16 partitions for shared or multi-tenant environments
- 100% duty cycle
- BlueVision tape management software

## Modern, Scalable Archiving with Versity and Spectra Logic

The Versity and Spectra Logic joint solutions deliver modern, scalable archive architecture built for high-performance, exabyte-scale environments. It combines intelligent data management, seamless migration from legacy platforms, and cost-effective, long-term storage using an open and flexible infrastructure.

### Key Benefits

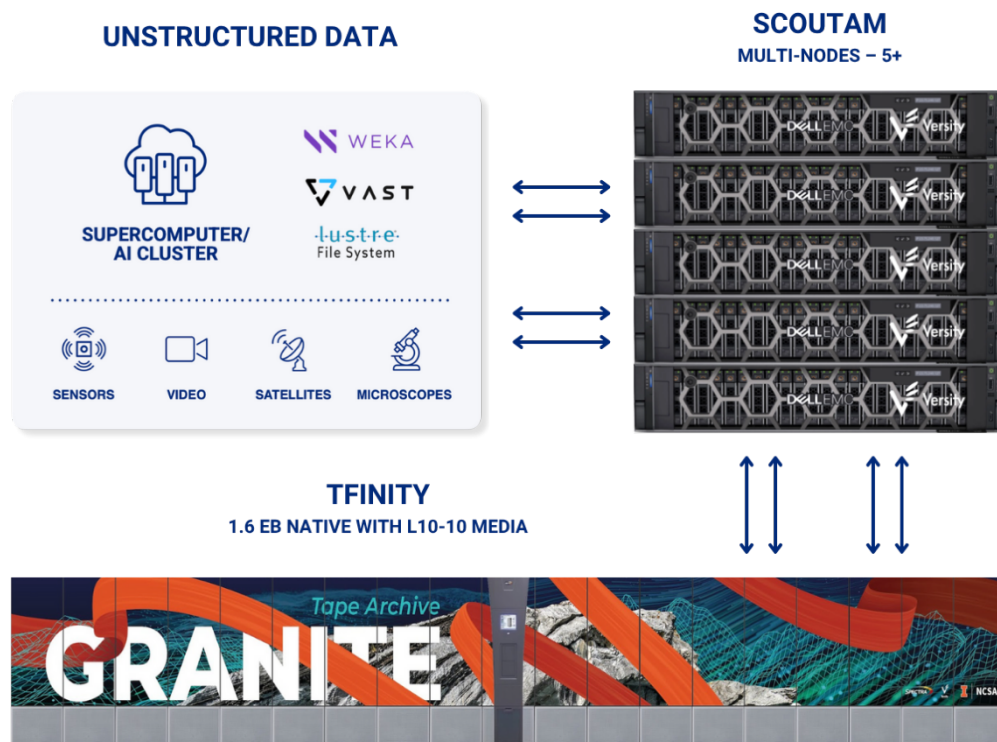
- **Massive Scale**  
Supports 50PBs to exabyte-scale archives and 10+ billion object namespaces.
- **High-Performance Ingest**  
Parallel tape writes ensure fast data capture at scale.
- **Unified Access**  
Amazon S3 and file workloads are accessed through a single, searchable namespace.
- **Intelligent Data Management**  
A flexible policy engine enables smart tape aggregation, data placement, and lifecycle management based on object attributes and timing.
- **Resilient Architecture**  
Metadata is stored on tape, enabling full data recovery from any site—tape, disk, or cloud.
- **Simple, Open, and Future-Proof**  
Built on open-source software and formats with a powerful GUI and REST API, ensuring long-term data control and easy operation.
- **Hardware-Agnostic Design**  
Vendor-neutral platform enables customer-controlled patching and expansion.
- **No Lock-In**  
Perpetual read-only access to archived data, even after license expiration, and seamless conversion from legacy archive formats without needing to move data.
- **Enterprise-Grade Reliability**  
Multi-site replication with automatic failover and unlimited data copies for data durability.
- **Exceptional Support**  
Backed by responsive experts with deep archive and storage experience.

## Versity Data Management with Spectra Tape Libraries

With **Versity ScoutAM** and **Spectra Logic Tape Libraries**, you can archive files using standard tools like rsync, Secure Copy Protocol (SCP), or simple drag-and-drop. No special steps required, your archive storage behaves just like a familiar file system.

- Versity ScoutAM
- Spectra Logic Tape Libraries

### Architecture and Workflow Diagrams



### Versity and Spectra TFinity

Ideal for national labs, climate modeling, genomics, and AI training archives.

- ScoutAM simultaneously ingests data from multiple high-performance applications
- ScoutAM uses a powerful policy engine and parallel data movement to optimize data organization and retrieval
- Data is distributed across multiple tape drives to optimize performance
- Data is preserved in a scalable, cost-efficient manner for long-term sustainability
- Metadata is always online and available

## UNSTRUCTURED DATA



## SCOUTAM DUAL NODES



## CUBE 50.1 PB NATIVE WITH LTO-10 MEDIA



### Versity + Spectra Cube

Ideal for institutions archiving modest data volume with plans for future expansion

- ScoutAM simultaneously ingests data from multiple high-performance applications
- ScoutAM uses a powerful policy engine and parallel data movement to optimize data organization and retrieval
- Data is distributed across multiple tape drives to optimize performance
- Data is preserved in a scalable, cost-efficient manner for long-term sustainability
- Metadata is always online and available

## UNSTRUCTURED DATA



## SCOUTAM SINGLE NODE



## STACK 16.8 PB NATIVE WITH LTO-10 MEDIA



### Versity + Spectra Stack

Ideal for environments with low-volume archives

- ScoutAM simultaneously ingests data from multiple high-performance applications
- ScoutAM uses a powerful policy engine and parallel data movement to optimize data organization and retrieval
- Data is distributed across multiple tape drives to optimize performance
- Data is preserved in a scalable, cost-efficient manner for long-term sustainability
- Metadata is always online and available



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## Conclusion

The combination of Versity's high-performance, software-defined data management and Spectra Logic scalable, cost-effective tape storage delivers a modern archive solution purpose-built for exabyte-scale environments. Together, they provide seamless migration from legacy systems, intelligent policy-driven data movement, and long-term data preservation with low total cost of ownership. This joint solution empowers organizations to future-proof their data archives with a flexible, open, and durable infrastructure that meets the growing demands of research, media, government, and other data-intensive sectors.