Dell ObjectScale and Versity

Efficiently manage cloud-scale unstructured data collections

Key Benefits

High-Performance, Cloud-Scale Economics

- Powerful, user-friendly mass-storage platform built to deliver the performance you want with the cloud-scale economics you need

Mix-and-Match Storage Options

- Features Dell ObjectScale object storage; options for Dell PowerScale (file), tape and public cloud for mass storage; Dell PowerVault for cache storage; and Dell PowerEdge for service nodes

Turnkey Engineered Solution

- Easy to order and deploy
- All components engineered and balanced to meet performance specifications

Easy to Use

- Extensive API coverage to ease integration with third-party tools and site-specific workflows
- Intuitive interface and streamlined processes enable easy management for users with varying technical expertise
- Open-source data formats using standard tools for seamless data handling

Reliable and Adaptable

- High availability even if servers are lost, with built-in failover and no need for external tools
- Disaster recovery directly from storage media that supports asynchronous remote replication
- Archive object directly to tape
- Supports on-premises S3 storage and public cloud services

Unstructured data collections generated by artificial intelligence, HPC, IoT, scientific research, media and surveillance are growing exponentially, stressing traditional storage architectures and IT budgets.
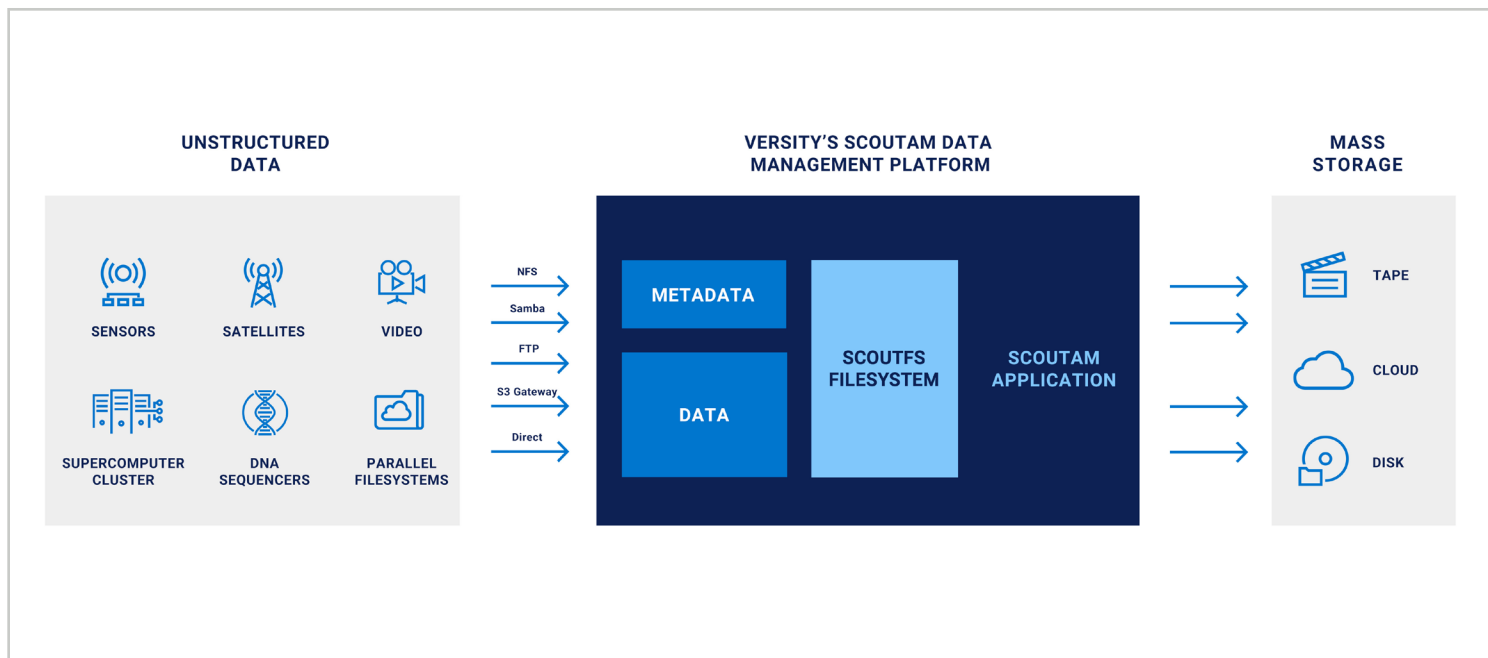
Dell Technologies and Versity have partnered to present a modern, scalable solution for managing and preserving petabyte-to-exabyte scale data collections with unmatched efficiency, cost-effectiveness and sustainability. This turnkey solution combines ObjectScale storage and other validated Dell infrastructure with Versity's ScoutAM software. Customers can easily procure the complete solution through Dell Technologies or authorized resellers, benefiting from streamlined deployment, modern support and simplified purchasing.

Versity ScoutAM

ScoutAM enables organizations to tier, manage and preserve large collections of unstructured data in a scalable and cost-efficient manner for long-term sustainability. With a modern architecture and codebase written in Go, it enhances data visibility and access, streamlines risk management with a policy-driven approach, and automates data placement across configurable pools of local or cloud storage, including high-performance disk, hybrid object storage and tape.

ObjectScale next-generation object storage

ObjectScale provides key features supporting ScoutAM and mass storage. With ObjectScale, the solution can start small and easily expand over time by adding drives, nodes or racks. ObjectScale, the leading object storage platform from Dell Technologies, boasts unmatched scalability, performance, resilience and economics. Ranging from 120TB to 23PB of capacity in a single rack, ObjectScale comes in several appliance form factors including HDD and all-flash-based systems ideal for analytics and modern application workflows. ObjectScale also provides rich S3-compatibility on a globally distributed architecture, empowering organizations to support enterprise workloads such as cloud-native, AI, Gen AI, analytics applications and archiving at scale.

Solution Overview

About Versity

Versity is a leading independent technology company focused on delivering innovative mass storage solutions. With a commitment to performance, scalability, and open-source collaboration, Versity empowers organizations to efficiently manage their data in a rapidly evolving digital landscape.
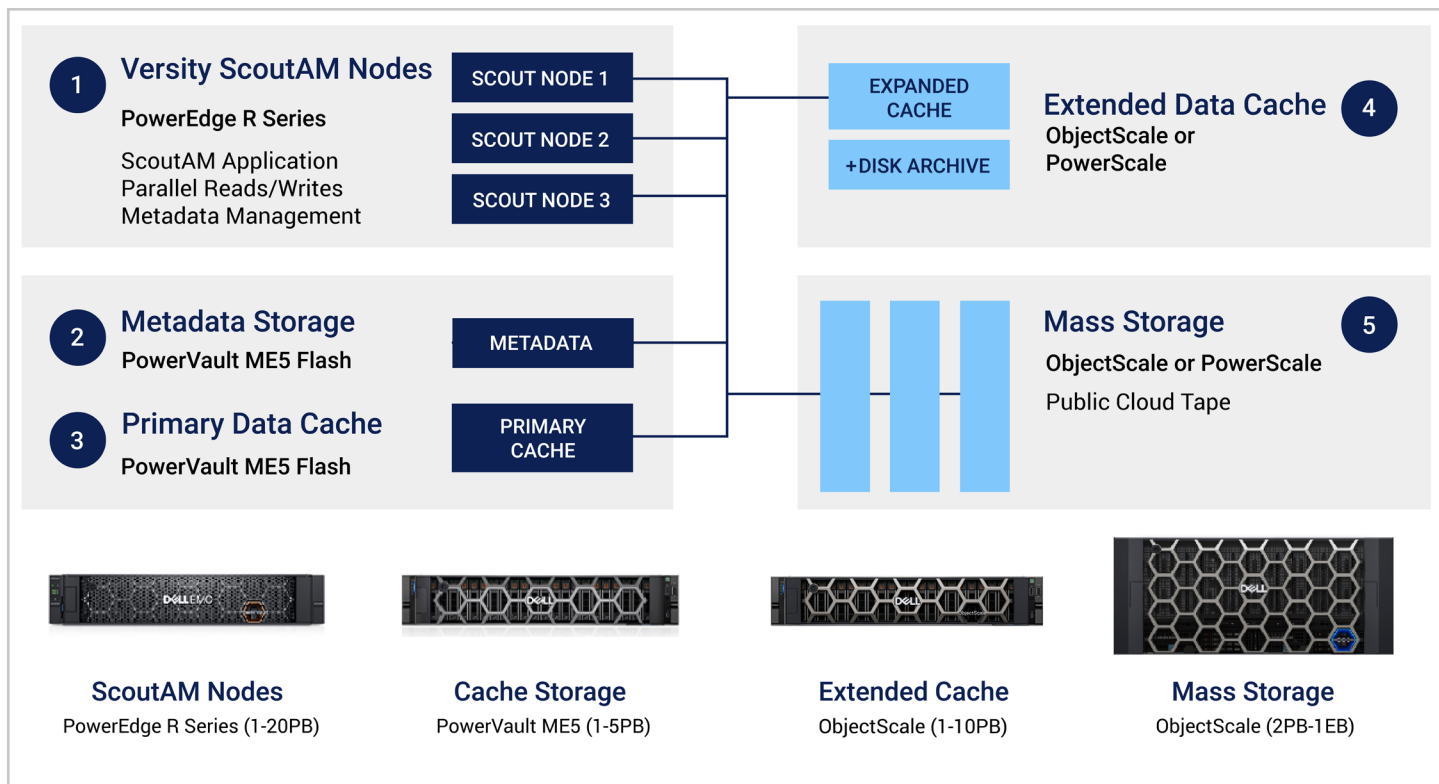
High Performance

- High throughput to archival storage: 40GB/s per 5 node cluster

- Parallel transfer: ScoutAM reads and writes data to mass storage devices through multiple channels per node simultaneously

- Customized and automated data orchestration policies for streamlined, efficient workflow management tailored to unique organizational needs

How ScoutAM works

ScoutAM ingests data from various sources such as sensors, satellites, telescopes, spectroscopy equipment, video content, DNA sequencers, monitoring systems and supercomputer clusters using multiple protocols including NFS, Samba, FTP, S3 Gateway and direct transfers. Data is managed within the ScoutFS Filesystem, which handles both metadata and data storage. The filesystem supports online metadata, indexed attributes and a scalable namespace to facilitate easy data access and management. ScoutAM employs a robust policy engine, scheduling capabilities and parallel data movement to ensure optimal data organization and retrieval. Data can be stored across various storage mediums, including object storage, tape and cloud, providing a flexible, scalable and cost-effective solution for managing extensive data collections.

ScoutAM provides a low-cost, on-premises glacier infrastructure for efficient and sustainable unstructured data preservation, significantly reducing storage costs and carbon footprint. As a modern, easy-to-manage cold storage solution for data lakes, it offers scalable secondary storage while minimizing complexity. Designed as an open, vendor-neutral alternative to legacy systems, ScoutAM eliminates the need for data migration from HPE DMF, IBM HPSS, IBM TSM, Oracle HSM, and Quantum StorNext, ensuring a seamless transition for organizations managing massive datasets

Solution Detail

Within the diagram:

1 Versity ScoutAM Nodes
PowerEdge R Series
ScoutAM Application
Parallel Reads/Writes
Metadata Management

SCOUT NODE 1
SCOUT NODE 2
SCOUT NODE 3

EXPANDED CACHE
+DISK ARCHIVE

4 Extended Data Cache
ObjectScale or PowerScale

2 Metadata Storage
PowerVault ME5 Flash

METADATA

3 Primary Data Cache
PowerVault ME5 Flash

PRIMARY CACHE

5 Mass Storage
ObjectScale or PowerScale
Public Cloud Tape

ScoutAM Nodes
PowerEdge R Series (1-20PB)

Cache Storage
PowerVault ME5 (1-5PB)

Extended Cache
ObjectScale (1-10PB)

Mass Storage
ObjectScale (2PB-1EB)

Take the next step

With our turnkey solution, purchasing and deployment are effortless. Designed by Dell and Versity, this integrated system combines Dell hardware with Versity's ScoutAM software for a high-performance, scalable data management platform and modular components that can easily expand as your demands grow. Whether you're scaling up or optimizing performance, this solution adapts to your evolving needs.

Learn more about Dell ObjectScale solutions

Contact a Dell Technologies expert

DELLTechnologies