

PoINT Archival Gateway

Unified Object Storage with Disk and Tape

Object storage systems are particularly suitable for secondary and archive storage, to relieve primary storage systems of inactive data and to archive data. However, data volumes often grow rapidly. Systems that work only with hard disks are then uneconomical. Also, the data backup of

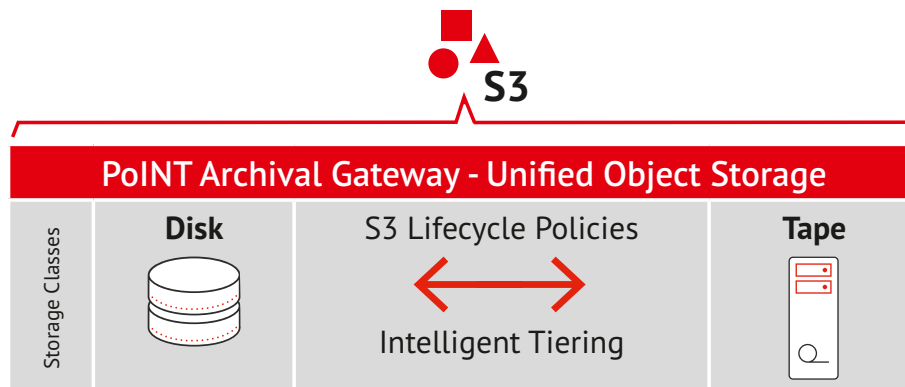
these systems is often neglected. A software-based object storage that flexibly unifies disk and tape media in a single system takes advantage of different storage technologies for internal tiering and automatic replication.

UNIFIED OBJECT STORAGE WITH DISK AND TAPE

Object storage products for on-premises use mostly hard disks only (sometimes also Solid State Disks). However, these systems reach their limits when it comes to very large data volumes. Such storage is becoming increasingly uneconomical, in part due to the high energy costs for operating hard disk systems.

Tape-based object storage solves these problems because, on the one hand, it can provide practically unlimited capacity. On the other hand, their use is very energy-efficient, since tape media that are not being accessed do not consume any power. Nevertheless, tape-based object storage has the disadvantage of very high access times when reading data.

PoINT Archival Gateway is a unified object storage in which several storage technologies with different quality characteristics – especially hard disk and tape – are integrated in a homogeneous architecture. Thus, the specific properties of the different technologies can be used optimally.



FLEXIBLE CONFIGURATIONS

The storage hardware used with software-defined object storage can be flexibly configured and adapted at any time. For example, it is possible to start the configuration with hard disks. Later, as data volumes grow and become inactive, it can be supplemented with a tape storage system so that cold data is transparently moved out to tape. If additional protection of object data is important, automatic replication from disk to tape can be set up. Tape-only configurations are also useful, e.g. to transparently migrate or replicate inactive data from existing disk-based object stores. In this configuration PoINT Archival Gateway acts as middleware for S3-enabled applications and systems for homogeneous integration of tape storage systems for archive or backup purposes.

Benefits

- Cost savings through tape integration
- Fulfillment of archiving and compliance requirements
- Avoidance of vendor lock-in
- Flexible configuration options
- Protection against ransomware through "Air Gap"

Properties

- S3 compatible REST API
- Single namespace across disk and tape
- Native support for tape libraries
- Erasure coding for disk and tape
- Automatic replication

S3 REST API

PoINT Archival Gateway enables S3-capable storage systems and applications to store and read objects by means of the standardized S3 REST API.

S3-compatible Storage Classes

Disk and tape storage systems are integrated as S3-compatible storage classes and can be configured accordingly. Applications can access the various storage classes using the standardized S3 commands.

Single Namespace

The storage classes disk and tape are available under one interface as a "single namespace". This significantly simplifies the use of different storage classes for S3 applications.

Tape-only Configuration

In the Tape-only configuration, data can be written directly to the tape storage class. HDD caches are not necessary.

Lifecycle Policies

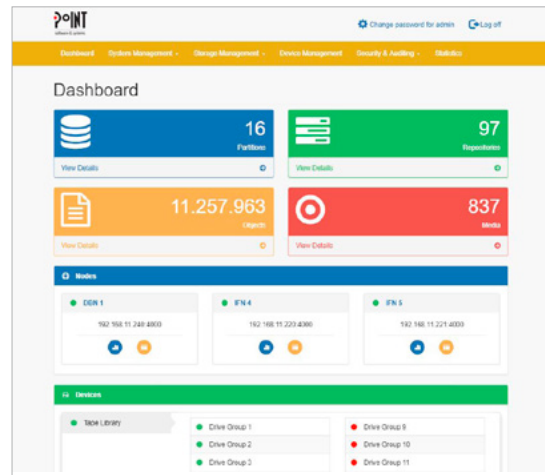
PoINT Archival Gateway is compatible with AWS S3 Lifecycle Policies. This allows data to be moved between storage classes based on individual rules. For example, it can be specified that data is first stored on the disk storage class for a certain time and then automatically moved to the tape storage class.

Automatic Replication and "Air Gap"

With automatic replication, data can be stored simultaneously on disk and tape media. This makes a media break possible. Additional data protection is achieved through the air gap of the tape media.

High Scalability and High Availability

PoINT Archival Gateway is highly scalable and provides redundancy on system and data level. The internal interface nodes cooperate with each other (e.g. for load balancing). The database nodes provide synchronous replication and failover. The flexibly selectable erasure coding procedures ensure the protection of the stored data.



Retention Management

PoINT Archival Gateway provides persistent data management to fulfill legal and corporate requirements for data archiving. Corresponding retention rules can be activated and defined on object repository level. The rules define how and when existing objects in the object repository may be modified or deleted. The functionality supports companies in enforcing their data retention policies.

LTO and IBM 3592 Tape Support

PoINT Archival Gateway supports LTO and IBM 3592 tape systems of different manufacturers and a wide range of tape library products. This avoids hardware vendor lock-in with long-term dependencies and unpredictable support costs. The replacement of a tape system is optionally supported by PoINT Archival Gateway and is possible at any time without business interruption. Tape support also includes versioning and offline media management.

Additional Information

Additional information and a trial version of the software are available at www.point.de. Information and trial versions of additional PoINT products are available there also.

Technical Information

Supported Hard Disk Systems

- JBOD
- NAS Systeme
- HDD Object Storage

Supported Tape Libraries

- ADIC
- Fujitsu
- HPE
- IBM
- Overland
- Qualstar
- Quantum
- Spectra Logic

Supported Operating Systems

- Windows Server
- Linux

Note: This list is extended on a regular basis. Please contact PoINT Software & Systems for an up-to-date list of supported storage systems.