

PoINT Data Replicator

Scalable File and Object Replication to S3 Storage

Due to the many advantages that cloud and object storage offer over file systems, there is a high demand for migration or replication of files (e.g. from legacy NAS) to cloud and object storage.

In addition, data storage in the cloud and on local storage poses an underestimated security risk. Under the mistaken assumption that data on cloud and on-prem object storage is secure, many organizations do not back up this data. Data stored on cloud and object storage is not protected from human error, ransomware, malware, or technology failure. This data must also be backed up or replicated, preferably to a different storage technology, in a different location, and in the original format.

PoINT Data Replicator is a software product that provides a solution to both scenarios.

S3-to-S3 Object Replication

The S3-to-S3 replication function replicates S3 objects from any S3-capable source to any storage system with an S3 interface. The source and target systems can be public clouds or on-prem object storage for example.

The S3-to-S3 function replicates objects including their metadata between S3 buckets. Source and target buckets can be located on the same system or can be physically different systems providing different storage classes.

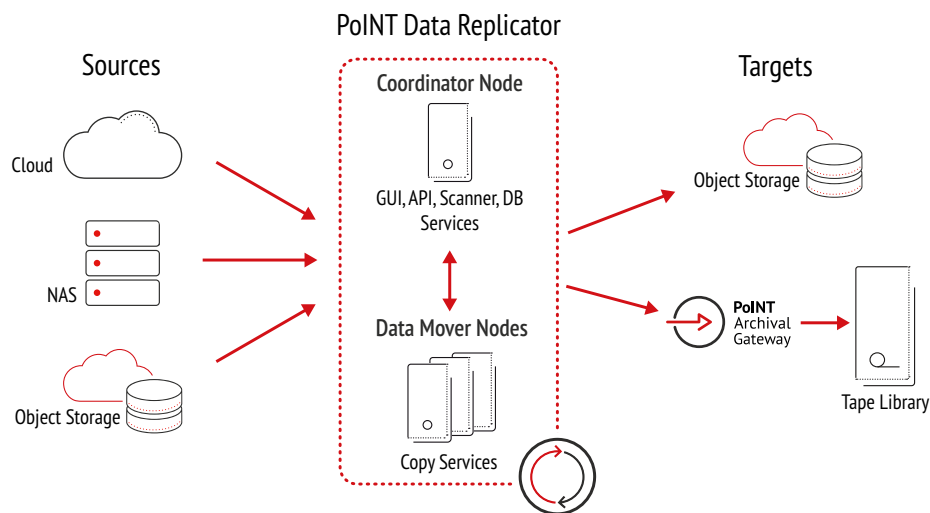
File-to-S3 Replication

The File-to-S3 replication function allows customers to migrate their file-based data from any file system to any storage system with S3 interface.

The File-to-S3 replication uses the path of the original file path as object key. Thus, standard S3 browsers will display the same structure as the original file directory after the replication.

Architecture

PoINT Data Replicator is a scalable solution and consists of several modules. The GUI, API, Scanner and Database Services run on the Coordinator Node, while the Copy Services are executed on the Data Mover Nodes.



The Copy Services can run on multiple Data Mover Nodes. Increasing the number of Data Mover Nodes improves the performance of the replication process.

FUNCTIONALITY

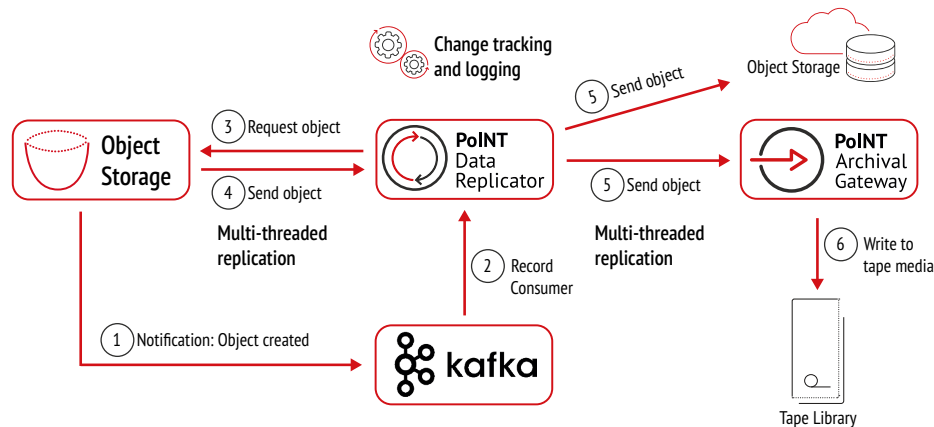
- Automatic verification
- Extended logging
- Database supported synchronization
- Multi-operating systems support
- Filter controlled replication
- Scalable replication by adding Data Mover Nodes
- Optimal throughput by multi-threading
- Multi-part objects support

Protection of Cloud/Object Storage

A typical use case for PoINT Data Replicator is the protection of cloud or object storage systems. Data stored at public cloud providers or on local object storage is typically not protected by a backup. Replicating this data to a physically separated S3 bucket protects it from human error, ransomware, malware, or technology failure. In principle, any S3-capable system can be used by PoINT Data Replicator as target system. This can be an on-premises object storage or an additional cloud storage.

Continuous S3-to-S3 Backup and Replication

The automated S3 Bucket Notification enables the continuous backup of very large data sets. Only new objects are identified and replicated, which makes the replication process more efficient and avoids long scan times on the source system.



The S3 Bucket Notification of PoINT Data Replicator works in combination with queuing services like Kafka and SQS.

S3 Tape Integration with PoINT Archival Gateway

Tape-based S3 object storage as a target system is the optimal solution for protecting cloud/object storage. Air-gapped tape provides malware protection. Using a standardized S3 REST API, large data sets can be stored and restored quickly. PoINT Archival Gateway is a scalable and high-performance S3-to-Tape solution to store and archive large amounts of data on tape media. PoINT Data Replicator and PoINT Archival Gateway complement each other and work together perfectly.

Direct Access to Object Data

Since PoINT Archival Gateway provides an object storage for tape, applications and users can directly access the replicated data. Long-term retrieval to the original cloud/object storage is not necessary.

Independent from Tape Hardware

PoINT Archival Gateway supports a wide range of tape products. A list of supported tape libraries is available on the PoINT web page at www.point.de.

Benefits

- Migration from legacy file systems to object storage
- Protection of cloud and object storage data
- Integration of tape by PoINT Archival Gateway
- Protection against ransomware, malware, human error, and technology failure
- Direct S3 access to replicated data on the target system

Features

- File-to-S3 and S3-to-S3 backup & replication
- Optimal throughput due to scaling and multi-threading
- Continuous backup & replication with S3 Bucket Notification
- Support for all mountable file systems (e.g. CIFS and NFS)
- Support for all S3-compatible cloud and object stores

Technical Information

Supported Source Systems

- S3-capable systems (e.g. cloud, object-based storage)
- File systems mountable by PoINT Data Replicator host

Supported Target Systems

- Storage systems supporting S3