PoINT Data Replicator
File and Object Replication to S3 Storage

POINT
software & systems

Today, organizations are typically storing unstructured data in file systems and increasingly in object and cloud storage. Due to many advantages of cloud and object storage, particularly with regard to inactive data, this leads to the requirement to migrate or replicate files (e.g. from legacy NAS) to cloud or object storage.

The fact that more and more data is stored in cloud and object storage has created an underestimated security risk. In most cases, data stored in the cloud or in on-premises object storage is not backed up as it is believed to be secure. This assumption is negligent and risky. High availability and redundancy as offered by cloud services and object storage products do not protect against human error, ransomware, malware, or technology failure. This means also cloud and object data need a kind of backup or replication, best on a separate storage technology, at a different location and in the original format as stored in the cloud and object storage.

PoINT Data Replicator is a software product that provides a solution to both scenarios.
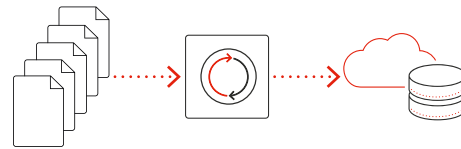
S3-to-S3 Object Replication

The S3-to-S3 Object replication function of the product replicates S3 objects from any S3-capable source to any S3-capable target. Source and the target systems can be public clouds or on-premises object storage.
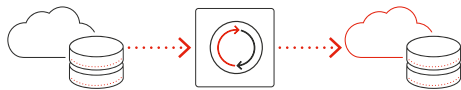
The Object-to-Object function replicates objects including their metadata between S3 buckets. Source and target buckets can be located on the same system or can be physically different systems providing different storage classes.

File-to-Object Replication

With the File-to-Object replication function of PoINT Data Replicator customers can migrate their file-based data from any file system to any S3 cloud or object storage.

The File-to-Object replication uses the path of the original file path as object key. This means that standard S3 browsers show the same structure as the original file directory after the replication.

Functionality

PoINT Data Replicator offers extended functions which support the replication process:
- Replicated files/objects are verified by the integrated verification function.
- Each replication process is logged in detail in a protocol for compliance and auditing purposes.
- The replication process is supported by a database to record already replicated files/objects. In case of repeated execution, only new files/objects are replicated.
- Optionally filters can be specified to restrict the replication process to a subset. E.g., a time filter can be set, so that only files/objects which have a specific age will be replicated.

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

Features
- File-to-Object and S3-to-S3 Object replication
- Multi-operating systems support
- Optimal throughput due to multi-threading
- Multi-part objects support (configurable part size)
- Support for all mountable file system (e.g. CIFS and NFS)
- Support for all S3 compatible cloud and object stores

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. Replication of this data to a physically separated S3 bucket protects this data against human error, ransomware, malware, or technology failure. In principle any S3-capable system can be used as target system by PoINT Data Replicator. This can be an on-premises object storage or an additional cloud storage.

S3 Tape Integration with PoINT Archival Gateway

A tape-based S3 object storage as target system provides an effective and economical solution to protect cloud/object storage. It is strong against malware because tape provides an air gap. Additionally, the price per TB is low and huge amounts of data can be stored in a small footprint. Additionally, fast storage and restores of large data sets are possible by using a standardized S3 REST API. Such a solution can be implemented with PoINT Archival Gateway which is a software product for storing and archiving huge amounts of data on tape media. It is a tape-based S3 object storage which is scalable and highly performant. PoINT Data Replicator works perfectly together with PoINT Archival Gateway as both software products complement each other.
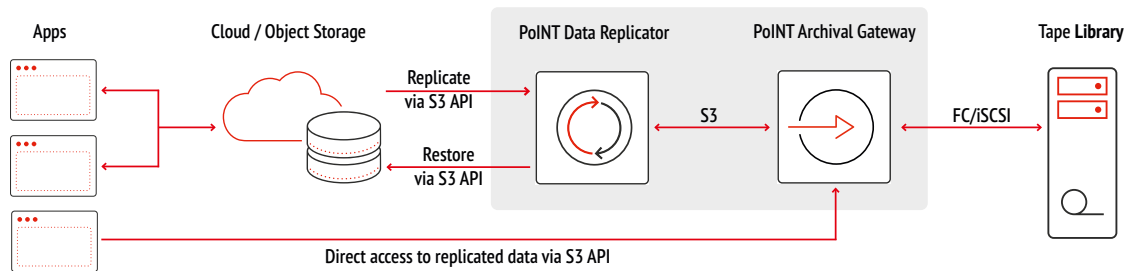
Direct Access to Object Data

As PoINT Archival Gateway provides an object storage for tape, applications and users can directly access to replicated data. No long-term retrieval to the original cloud/object storage is necessary.

Independent from Tape Hardware

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

Technical Information

Supported Source Systems

- S3-capable systems
- File systems mountable by host running PoINT Data Replicator

Supported Target Systems

- S3-capable systems

Supported Operating Systems

- Windows
- Linux
- MacOS

Additional information of PoINT Data Replicator and PoINT Archival Gateway are available at www.point.de. Information and trial versions of additional PoINT products are also available there.