

In-Cloud Data Migration LOUD





Architecture & Engineering

RESULT

- Successfully eliminated the vendor "lock-in"
- Moved to a more efficient and transparent in cloud data storage management system
- 70% shorter migration time than anticipated

THE CHALLENGE

• The in-cloud NAS application uses a proprietary storage format even for data stored in AWS S3

A global civil engineering firm has almost all its data, 400TB total, in an AWS S3 bucket in the U.S. East region. The data is managed using an in-cloud instance of a commercial NAS software, which stores data in a S3 bucket in a proprietary format and thus data access must be accessed via SMB/CIFS or NFS protocol.

PROBLEM STATEMENT

A data mover that migrates the data in the existing bucket through the commercial NAS application to a new AWS S3 bucket in the U.S. West region. The resulting data objects must be accessible directly via the AWS S3 RESTful APIs or any applications written w.r.t. such APIs.

LIMITATION OF CURRENT SOLUTIONS

The current NAS solution stores data in the AWS S3 bucket in a format that is not usable to applications that uses AWS S3 REST APIs.

ZETTAR SOLUTION

A high level view of the solution that Zettar designed for the company. The entire solution architecture is simple. In the East region, an instance of zx running in the AWS EC2 interacts with the aforementioned commercial in-cloud instance of NAS application via NFS. The fetched data objects are directly written to the new AWS S3 West region bucket, leveraging the two strengths of Zettar zx:

- The NAS limits data access to SMB/CIFS and NFS, not native S3 APIs
- The in-cloud NAS cannot meet the company's nearly real-time data access requirement across facilities

THE SOLUTION

- A data mover that can run anywhere and supports both file and AWS S3 storage transparently
- **API-enabled** automation streamlined tiering data management

- Insensitivity to network latency
- Single-site mode, so a single instance of Zettar zx can fetch data from a data source (either file based or object based) and send such object to a remote AWS S3 bucket.



MAJOR FEATURES EMPLOYED

Scale-out; RESTful API; parallel processing of multiple storage systems and volumes, both file and object storage; "single-site mode" which enables zx to read/write data directly to a remote file or object storage while itself also act as data sender or receiver.

ALSO APPLICABLE

Scale-out architecture to meet data growth and high-demand

- Cloud to cloud data migration for multi-cloud scenarios
 - Escaping from the lock-in by the proprietary data format of storage applications in the cloud
- Quick replication between regions to speed up collaboration workflows of different facilities

CASE STUDY | IN-CLOUD DATA MIGRATION