Case Study: Migration of Legacy Oracle T10K Tapes to AWS Glacier Instant Retrieval (GIR)

Client: A leading Media Company
Service Provider: Saurabhi Media
Project Summary: Migration of Legacy Oracle T10K Tapes to AWS Glacier Instant Retrieval (GIR)

Background

The client, a major media organization, needed to transition their extensive archive of legacy Oracle T10K Tapes to a more modern and scalable cloud storage solution. This migration was essential to reduce dependency on aging physical infrastructure and to enhance the accessibility and security of their valuable media assets.

Objective

The goal of this project was to migrate approximately 40 Petabytes of content stored on legacy Oracle T10K Tapes to AWS Glacier Instant Retrieval (GIR). The migration aimed to modernize the storage infrastructure, reduce long-term costs, and enable faster access to archived content.

Scope of Work

1. **Assessment and Planning**:

   o A thorough assessment of the existing archive system was conducted to identify the content structure, tape conditions, and data integrity.

   o A migration strategy was developed, focusing on minimizing downtime and ensuring data integrity during the transfer to AWS GIR.

2. **Custom Tool Development**:

   o A bespoke tool was created to automate the extraction, verification, and migration processes. This tool ensured that data was securely and efficiently transferred from Oracle T10K Tapes to AWS GIR.

3. **Data Migration**:

   o The migration process was executed in phases to ensure that the integrity of the data was maintained. Each tape was carefully extracted, verified, and transferred to AWS GIR using the custom migration tool.

   o Regular checks and validations were performed to ensure the accuracy of the migrated content.

4. **Validation and Testing**:

   o Post-migration, the data was thoroughly validated to ensure that all content was correctly archived in AWS GIR and accessible as needed.

   o Testing was conducted to verify the speed and reliability of data retrieval from AWS GIR.

5. **Ongoing Support and Monitoring**:

   o After the migration, continuous monitoring and support were provided to ensure the smooth operation of the new cloud-based archive system.

   o Regular performance reviews were conducted to optimize the storage and retrieval processes in AWS GIR.

Challenges

- **Data Integrity**: Ensuring the integrity of 40 PB of data during the migration from physical tapes to a cloud-based solution was a significant challenge.

- **Automation**: Developing a robust automation tool that could handle the complexity and scale of the migration.

- **Minimal Downtime**: Migrating large volumes of data with minimal impact on the client's ongoing operations.

Outcome

The project was completed successfully, with all 40 PB of data securely migrated to AWS Glacier Instant Retrieval. The client benefited from reduced storage costs, enhanced data accessibility, and improved disaster recovery capabilities also paved the way for future scalability and innovation.