

Case Study

# Data Baked Right

Transforming Data Management for a Leading U.S. Mortgage Company with Snowflake

## Summary

A leading U.S. mortgage company sought to modernize its data management framework to eliminate inefficiencies and improve reporting accuracy. Through a collaborative effort, a new data architecture was implemented, resulting in significant enhancements in data handling and reporting capabilities.

## Client Overview

A leading U.S. mortgage company that offers a range of home loan products and engages in acquiring newly originated U.S. residential mortgage loans from small banks and independent originators.

Headquarter  
**California**

Revenue  
**\$490+ Million**

Lines of Business  
**Residential  
Mortgage Loans**

## Pressure Points

Sonata implemented a voice and chatbot solution to handle loan application queries efficiently. The process flow is as follows:

Discrete nuclear data warehouses led to data redundancy and inaccurate reporting across teams

Data processing times ranged from 4 to 10 hours

High maintenance costs due to numerous licenses and hardware requirements

Anticipated explosion in data size posed scalability challenges

Heavy reliance on stored procedures for data transformation and reporting

Replicating functionalities of Data Vault architecture caused performance issues

Impact on the middle and reporting layers

## Solution Highlights

Conducted a proof of concept (PoC) on Snowflake to showcase its advantages over the existing data warehousing framework

Designed a new architecture using AWS S3 as an intermediate staging area for the new EDW built on Snowflake

Categorized and replaced stored procedures based on their usage for data massaging and reporting

Developed a completely new dimension model and implemented Data Vault principles in the new data warehouse

## Technology Used

- SQL server
- AWS S3
- Snowflake
- Tableau

## Results that Speak Volumes

Enhanced data handling efficiency

Improved business intelligence through timely data availability

Accelerated data processing capabilities

Strengthened data security during transfer operations