

A large regional health plan accelerated decision-making and business agility by 70% using Snowflake Cloud Data Warehouse.

#### **SNAPSHOT**

Industry & Region Healthcare, Payer, USA

## **Project Highlights**

A large regional health plan migrated its data pipeline from AWS Redshift to Snowflake's Cloud Data Warehouse. The end-to-end process leveraged ValueMomentum's inhouse accelerators for data migration and validation, accelerating the turn-around time of decision-making and improved business agility by 70%.

## **Benefits**



Reduced operating costs, year-overyear



Drove digital transformation through data



Accelerated decision-making through increased data accessibility and near real-time report generation



Improved pipeline reliability and uptime, driving business agility and boosting overall productivity

## **CLIENT OVERVIEW**

The client is a well-known 100-year-old large regional health plan committed to simplifying healthcare and making it affordable to individuals. The health plan provides financial protection and peace of mind through its affordable health insurance products and services, including 24/7 nurse line support for professional medical advice, prenatal and chronic care, transplant programs, case management, behavioral health services & lifestyle improvement programs, and patient support programs.

## **BUSINESS CHALLENGE**

With the ever-changing data requirements and the volumes of data in the healthcare industry, the health plan was in need of a more complex processing system for their data—one that would allow them to diversify the types of information they consume and enable analytics and downstream feeds. They sought help to solve the problems of data capture, cleansing, storage, stewardship, exploration, reporting and visualization, and security and sharing. Their goal is to leverage data to provide preventative care and improve overall human health for their insureds.

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# **SOLUTION OFFERED**

The carrier selected ValueMomentum as their partner on the recommendation of their subsidiaries, as well as for ValueMomentum's experience and expertise in designing, building, and maintaining modern data ingestion pipelines in various industry domains (e.g., healthcare, insurance, banking, etc.). Working closely with ValueMomentum, the carrier collected and consolidated business and technical requirements, tested newer technologies with proof-of-concepts, and assessed solutions to find best fit for their existing technology fabric, thus clearing any technical debts or point solutions. Once the client identified their business needs and decided on the scope of the migration process, the focus of the project then moved to enabling seamless migration of both historical and incremental data loads—a complex process requiring a new pipeline to perform ELT in Snowflake using SNOWPIPE, Streams, Tasks and Procedures.

This end-to-end migration to Snowflake on AWS included Architecture, Design, Development, Pre-Production, and Production. It was divided into multiple workstreams (Ingestion, Data Operations & Validation, and Distribution) and executed using agile methodology. A critical part of the migration was data validation. ValueMomentum supported the carrier on this key component by building a data validation pipeline inside Snowflake to perform on-going load daily validations. Additionally, ValueMomentum created documentation to support the knowledge transfer between the teams.

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## **Technology Stack**

- Cloud AWS
- Source Data(s) Conformed Data Lake File(s) (CSV and JSON files)
- Storage AWS S3 (Parquet and JSON files)
- Data Lake Athena (files stored on S3)
- Data Marts Redshift
- Data Processing Snowflake Pipeline, Spark, EMR and Lambda
- Workflow Management -Snowflake Pipeline
- Data Exploration Athena, Jupyter Notebooks, client tools
- Metadata Catalog AWS Glue
- Auditing & Logging AWS Logging, CloudTrail and QuickSight

## VALUE DELIVERED

Leveraging ValueMomentum's experience and expertise, the carrier created multiple automation tools and built service improvements which reduced the overall time of the migration as well as the ongoing costs. With a cloud-based solution, the carrier was able to expand its ability to perform analytics on historical data efficiently and endlessly. The carrier was also able to scale data use as needed, easily connecting with existing tools and generating reports in near real-time to derive valuable insights from the data to enable agile decision making. Once completed, the newly-built solution enabled the client to process data 85% faster and improved speed to analytics by 70%.