

## D&A TRANSFORMATION TALES

# Augmenting Performance and Data Modelling with Data Warehouse



## BACKGROUND

Our client is a leading graphic arts company. They approached Aspire to streamline their data acquired from different sources such as files, DB, API and Stream to build a data warehouse in Snowflake within a specific time frame. The challenges they faced included:

- Complicated cleansing and validation of data
- Inability to manage historical and current data efficiently
- Redundant data from different divisions and company codes
- Performance and scalability issues on the application while accessing data from different geo locations
- Knowledge heavily vested with one subject matter expert
- Difficulty in implementing a security layer on both data in rest and transit through VPC



## BACKGROUND

To overcome these challenges our data and analytics experts suggested streamlining their data challenges with Data Warehouse that would enable the client to:

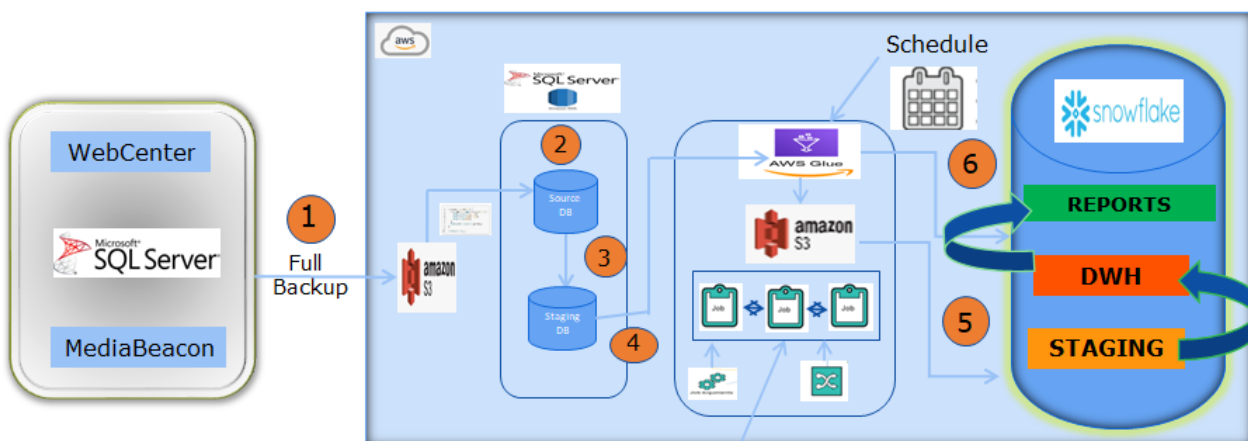
- Implement data modelling to design Master and transaction tables and relationships between those tables
- Aggregate data from different data sources (sql, database) and load them into DWH using Glue as ETL Tool
- Extract data from DWH using qlikview for BI reporting and dashboards
- Schedule daily job load through Glue in AWS
- Configure email services to send logs and success notification on a daily basis



## THE SOLUTION

After taking the client's needs and challenges into consideration, Aspire's Data and Analytics team curated a well-crafted plan to build and deploy Data Warehouse that would help the client process, store, clean, share, analyze, model and monetize their datasets using BI and ML solutions. The solution involved:

- Using S3 bucket to store Sql server backup file of the Source System and restoring it in RDS
- Stored procedure designed to do full and incremental load in RDS SQL Server
- The stored Procedure called from AWS Glue ETL
- AWS S3 bucket to transfer data between RDS to AWS cloud Snowflake Database
- Maintaining proper logs for incremental load and triggered email during success and failure
- Scheduling and monitoring daily load job through Glue ETL Triggers





## TECHNOLOGY SNAPSHOT

- Enterprise Cloud Platform – AWS Platform
- VPC
- Enterprise Data Base–Snowflake
- Enterprise storage – S3 Bucket
- RDS Database - Sql server
- AWS Glue ETL, RDS for sql server
- Reporting - QlikSense
- Features used in Snowflakes
- Snow stage for Data Integration in S3 storage
- Snow pipes for continuous data ingestion of large data for full load
- External tables and views
- Data Replication across zones for Production Env



## BUSINESS BENEFITS

- Interoperates with on premises and Cloud data
- Near real-time data helps value additions for reporting requirements
- Involved heterogeneous sources to produce powerful reports in milli seconds.
- High return on investment with quality reports.
- Higher query performance and improved historical insight.
- Enhanced data quality and consistency.
- Increased the power and speed of data analytics





Aspire Systems is a global technology services firm serving as a trusted technology partner for our customers. We work with some of the world's most innovative enterprises and independent software vendors, helping them leverage technology and outsourcing in our specific areas of expertise. Our core philosophy of "Attention. Always." communicates our belief in lavishing care and attention on our customer and employees.

For more info contact: [info@aspiresys.com](mailto:info@aspiresys.com) or visit [www.aspiresys.com](http://www.aspiresys.com)

USA  
+ 1 630 368 0970

SINGAPORE  
+65 3163 3050

INDIA  
+91 44 6740 4000

BELGIUM  
+ 32 3 204 1942

NETHERLANDS  
+ 31 (0)30 800 92 16

POLAND  
+48 58 732 77 71

MEXICO  
+52 222 980 0115