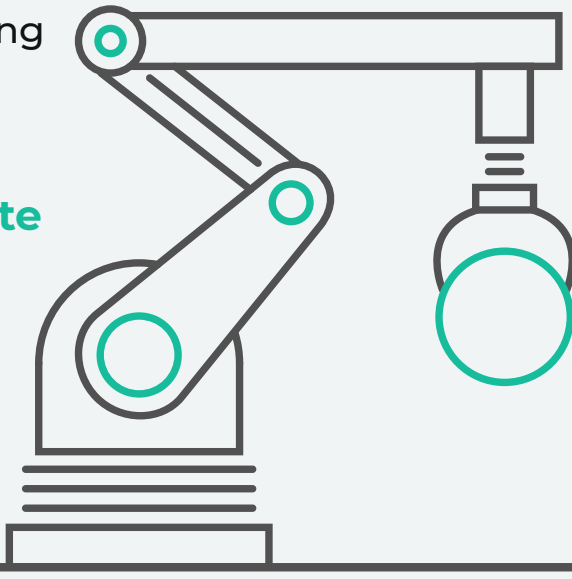


Implemented Snowflake data warehousing solution for a digital manufacturing platform that achieved high scalability, low maintenance, and improved analytics performance

About the Client

A digital manufacturing platform delivering custom parts on demand to help companies **accelerate new product introductions**



Has **250+** global manufacturing partners and has manufactured **12M+** parts since 2013

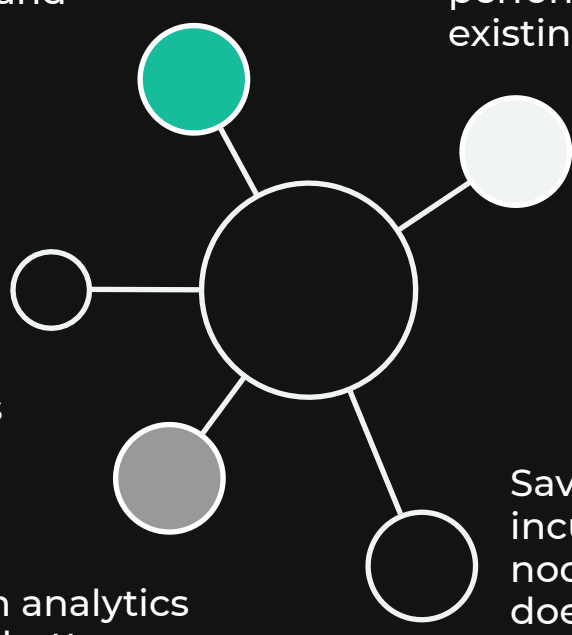
Caters to the **Silicon Valley innovators** besides the healthcare, automotive, aerospace, and consumer electronics industries

Business Needs

Replace Redshift and other complex data warehousing systems with an easily maintainable and cost-effective solution

Improve existing query performance and overcome existing challenges of scaling

Apply modern-day architecture and design principles for decoupling existing front-end and backend ERP systems



Build a next-gen analytics GUI solution for better flexibility and maintainability to save enterprise license cost

Save the additional incurring cost to maintain nodes because Redshift does not separate storage and compute

Solutions



Cybage visioned, architected, and designed a data warehouse that resulted in **consolidation, cost savings, and scalability** for future needs:

- **Adopted Snowflake data warehousing solution for:**
 - NFR fulfillment, **auto-scalability, better alertness**, and monitoring
 - **effective processed data management** with different virtual warehouses and auto scaling on need basis
 - supporting semi-structured database
 - **saving costs** through Snowpipe delivery mechanism
 - **accurate monitoring** of each warehouse data and queries through Snowflake Console
- **Used Fivetran as ETL for:**
 - moving away from Lambda and used a more robust way to ETL while avoiding data breakage at the time of source system change
 - staging all data from respective data sources—S3, EC2, API, third-party app—to Snowflake
 - monitoring via AWS CloudWatch
- **Implemented Sigma reporting** with connectors for each Snowflake Analytics Warehouse on user privilege basis
- **Deployed Apache Airflow** as a data pipeline to decouple the systems
- Built a system that ensures **scalability, effortless maintenance, and improved analytics performance**

Business Impact



~40% cost savings owing to migration from Redshift and other systems to Snowflake



~60% improved reporting time and 0 timeouts due to optimized queries implementation



Continuous monitoring through AWS CloudWatch


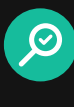

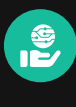


Lowered licensing and other costs with effective Sigma implementation and fewer data syncs

Technology Stack



Cybage Digital Product Engineering Services

-  Architectural Services
-  Testing and QA
-  Support Services
-  MarTech

Fostering high performance and innovation delivered through modern-day architectures

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