

# Modern Architectures with Analytic Engineering

Developing strategies, platforms and tools to help organizations harness and transform their data into powerful analytic insights.

## Supporting Analytic Insights With Powerful Platforms, Tools And Solutions

Data continues to be created, stored and consumed at massive scale and the ability to leverage the power of big data solutions is critical to support business insights.

With a depth and breadth of experience, our team can help your organization architect modern, scalable data platforms where data can be ingested, transformed and consumed in both batch and real-time streaming for faster speed to insights.

## Benefits of Data Architecture & Engineering

- ▽ Modern, scalable architectures that complement self-service analytics
- ▽ Real-time streaming data for increased speed to insights
- ▽ Cost efficient, scalable and flexible data storage and transformation
- ▽ Development of data pipelines that support business users and how they interact with data
- ▽ Ability to migrate, maintain and monitor all of your data assets with precision, speed and accuracy

## **Modern Data Architecture (MDA)**

Harness the value of your data by viewing data as a shared asset providing the right interfaces for users to consume data securely. A cloud-based approach to data architecture can democratize your data, improving speed-to-insight.

## **AIM Data Optimizer (ADO)**

Consume and transform Big Data with an efficient, cost-effective solution that greatly reduces manual and singular data processing time and automatically converts multiple file types in to an easily read columnar file format all at once.

## **Streaming Data Services (SDS)**

AIM designs and implements solutions for the continuous flow of information from disparate sources to a destination for real-time processing and analytics.

## **Data Transformation**

Develop and implement ETL/ELT processes for changing the format, structure, or values of data to support analytics initiatives across the organization that are unified, consistent and has a high degree of quality.

## **Data & MLOPS**

Develop and implement technical practices, workflows, and architectural patterns that enable rapid innovation, experimentation, new insights and high data quality with clear measurement, monitoring, and transparency of results.

## **Data Migration & Integration**

Development and deployment of analytics code following software engineering best practices like modularity, portability, CI/CD, and documentation for production-grade data pipelines.

# **Data Architecture & Engineering**

AIM has skills and capabilities to design, develop, and deploy modern and scalable data architectures and platforms that can be leverage by IT and the business. Our solutions span the entire data pipeline, from source to target, with successful solution delivery at each phase of the data journey. We provide organizations with the ability to ingest, transform, deploy and manage data across many industry verticals.

## Success Stories

### CLIENT

### CHALLENGE

### SOLUTION

### KEY RESULTS

#### Multinational Food & Beverage Organization

The client needed to decommission and migrate key business processes and data analysis around customer analytics from its legacy data platform, Teradata, to Oracle's Exadata platform.

A massive data migration was required to move more than 13,000 Teradata tables to the new platform.

AIM's team thoroughly analyzed and documented the organization's customer analytics requirements, design, and business processes needed to successfully lead the migration.

The data migration automation application was streamlined and developed in three weeks, saving the organization from having to rely on a massive manual undertaking that might have required 20-30 consultants and a year or more to migrate the database objects using an ETL approach.

#### American Retail Chain Store

The client, with a massive data store of 2 billion data assets scattered across the enterprise, was having difficulty locating particular data on demand. The company's IT analytics department would take from 2-3 days to a month to fulfill employee data requests.

AIM's team joined the client team to reengineer the application into a complete data portal that instantly fulfills employee data requests. AIM also streamlined numerous application development processes on the analytics team.

With the new data portal, it now takes less than a second to find the data that took days or weeks to locate in the past. Around 70 searches per day were performed through the data portal when it first went live; after only a few months the number topped 1,000 as its popularity increased.

#### Global Software & Services Provider

The client recognized an opportunity to leverage analytics to increase collaboration and productivity in its workforce as well as to offer similar analytics solutions to its customer base of enterprise-level clients.

AIM delivered: foundation to onboard new clients efficiently; multi-tenant Azure Data Lake repository; multiple Azure Data Factory jobs to orchestrate movement of data to clientspecific repositories; full automation of these services; components to enhance data security; power BI templates + workbooks for data analysis

The AIM solution allowed the company to maintain its current customer base while building the target architecture and onboarding new customers at great velocity. Their customer base grew by 500% through which the solution remained stable.