

CASE STUDY

Data Management & Analytics Solution for an e-Commerce Agency



OVERVIEW

The client, a leading full-service e-commerce agency, boasts a diverse portfolio comprising over 500 global clients across North America, Europe, and Asia. Specializing in optimizing return on investment and managing brand presence on major e-commerce platforms, their services encompass enhancing visibility, stabilizing cash flow, scrutinizing remittances, and providing hourly active reporting.

CHALLENGES

With an extensive portfolio active on diverse e-commerce platforms, our client required a comprehensive solution for data collection, aggregation, and analysis. The aim was to support live campaign management, reporting, and strategy optimization.

The client sought a unified, verifiable data source to bridge silos, facilitating the creation of intricate internal reporting and client-facing dashboards. Additionally, leveraging historical data to optimize advertisement management across platforms, considering relevant metrics in a weighted manner, was essential.

INDUSTRY

- E-Commerce
- Brand Management

SERVICES

- Data Warehouse
- Reporting/Self-Service BI
- Data ETL
- Advanced ML
- Data Governance
- Data Deduplication

TECHNOLOGY

- AWS Glue
- SQL
- AWS EC2
- AWS RDS
- Spark
- Python



SOLUTION

Contata, with its highly experienced team of data experts, collaborated closely with the stakeholders to collect, cleanse, transform, and unify data from various sources. This was achieved by creating resilient and dynamic workflows using Apache Spark and Python, enabling real-time reporting and decision-making.

We extracted data from over 50 endpoints of multiple e-commerce platforms' APIs and stored it in an AWS RDS Data Warehouse using AWS Glue and EC2 machines with SQL serving as a pivotal tool in managing the extracted data. This warehouse served as a single, verified source of truth for all enterprise reporting.

To ensure data accuracy, processes were implemented for continuous re-fetching and updating of historical data, synchronized with changing metrics on platforms, such as returns. This facilitated the use of the most accurate Key Performance Indicator (KPI) values by an advanced machine learning (ML) algorithm. Robust security measures were employed to safeguard confidential data both at rest and in transit.

Daily Extract, Transform, Load (ETL) runs were monitored through an automated operations dashboard. AWS SES alerts were utilized for notifications, ensuring smooth operations and swift resolution of any arising issues.

BENEFITS

- Achieved 98% accuracy within 24 hours for matching providers based on changing historical performance data, with the remaining 2% covered within 2 days.
- Implemented a single unified platform for dynamic campaign management across multiple platforms, featuring custom controls.
- Integrated 40+ data endpoints across various e-commerce platforms into the warehouse, enhancing capabilities for machine learning (ML) and analytics.



About Contata

Contata Solutions is a trusted leader in technology and digital innovation. Through our work in data engineering, data analytics, machine learning, automation and app development, we deliver solutions that address complex problems in ways that are simple, insightful and impactful.

Our promise and value proposition to our customers is simple: we leverage our deep technical expertise and global presence to bring software products and data-driven decision capabilities to life.

Founded in 2000, Contata is a privately-held company headquartered in Minneapolis that serves clients globally from offices in the United States and India.