

CASE STUDY

Data Management & Analytics: Offshore Development Solution for a Health & Fitness Club



OVERVIEW

The client is a prominent health and fitness club with a global presence, operating in 5000+ franchised locations across 50+ other countries.

CHALLENGES

The client faced a complex data management challenge characterized by disparate versions and silos of data that impeded effective business analytics. The lack of a central data catalog and significant duplicates in consumer data exacerbated the issue, leading to conflicting information from various sources and inefficient data handling processes.

Additional difficulties included managing “dirty data,” such as unclear addresses, transliteration issues, and inconsistent contact information, which further complicated efforts to achieve a unified, verifiable data source for comprehensive organizational analytics.

INDUSTRY

- Fitness
- Franchise

SERVICES

- Data Warehouse
- Reporting/Self-Service BI
- Data Discovery
- Deduplication
- Data Governance

TECHNOLOGY

- Azure SQL
- C#
- Azure Data Factory
- Power BI
- Data Lake
- Service Bus
- Azure Alerts



SOLUTION

Contata addressed the client's complex data management challenges using a robust offshore development approach and leveraging the Microsoft Tech Stack. We began by integrating and consolidating disparate data sources using Azure Data Lake and Azure Data Factory, which enabled us to streamline data ingestion and processing from over 30 countries.

Our development team, working remotely, utilized C# for custom data transformation and integration tasks, ensuring a seamless flow of data. We established a centralized Azure SQL database to serve as a unified, verified source of truth, where all cleaned and consolidated data was stored.

To handle "dirty data" issues such as inconsistent addresses and duplicated records, we developed a comprehensive normalization and deduplication application. This application employed checksum columns and Golden Keys to efficiently manage and rectify data inconsistencies.

We enhanced data visualization and reporting capabilities with Power BI, delivering intuitive dashboards and reports for stakeholders to easily analyze key metrics like customer activity, revenue, and performance across locations.

For data integration and communication between systems, we utilized Azure Service Bus to ensure reliable messaging and data flow. Azure Alerts were configured to monitor ETL processes, providing real-time notifications and ensuring operational efficiency.

BENEFITS

- **Reduced Data Duplication:** Eliminated 17% of historical data duplicates through advanced deduplication and Golden Keys.
- **Enhanced Data Structure:** Improved organization and user-friendly data representation.



- **Unique Identifiers:** Golden Keys provided consistent identities for data records.
- **Actionable Insights:** Power BI delivered clear, actionable business insights.
- **Operational Efficiency:** Saved 240+ man-hours daily by streamlining data processes.
- **Improved Data Provisioning:** Cataloged 55% of data sources for enhanced BI capabilities.

About Contata

Contata Solutions is a trusted leader in technology and digital innovation. Through our work in data engineering, data analytics, machine learning, marketing 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.