



Operating with greater control.

Client

American Fortune 500 Retail Store

Project

Data Integration, Analytics, and Management

Highlights

- Integrated data from nearly 200 source systems into a data warehouse, to be consolidated within an MDM program, over a multi-year and multi-phase initiative
- Modeled data structures and performed in-depth analytics to ensure quality data output, in terms of both relevancy and integrity

Consolidating customer information into one central data repository

Client Challenge

The client faced the challenge of consolidating all its fragmented customer information into a single customer hub. Another challenge was to sunset the client's existing legacy customer database application. The legacy system required a lot of time and effort to integrate a new source system, had unreliable business rules for email and phone, and changing business rules for any attribute had a huge impact on testing.

Mastech InfoTrellis Solution

The overall architecture and design involved integrating 185+ source systems with MDM and their enterprise data warehouse. The integration layer allowed seamless integration of the source systems with MDM in a real-time, near real-time, and batch mode. All changes occurring in MDM were captured using Change Data Capture (CDC) technology, and were pushed to the data warehouse. Mastech InfoTrellis was also instrumental in reducing the MIPS increase due to the addition of the MDM server database in a mainframe z/OS environment.

In detail, we engaged in the following activities:

- Performed the product evaluation of MDM and developed an overall strategy and delivery of the multi-phase MDM program. In the initial phase of the program, we provided thought leadership and helped refine the requirements which led to the architecture and design of the overall solution.
- Helped the client determine appropriate MDM usage style based on overall corporate and program goals
- Provided key threshold parameters for MDM, which drove an in-depth analysis of the data quality at the source
- Implemented innovative custom and COTS hygiene processes to ensure the quality of the data stored in MDM
- Supported the client in developing and maintaining an automated build and deployment mechanism to help in reducing time and errors in these activities
- Developed and tested the MDM server environment, in-bound and out-bound ETL modules, and the integration layer
- Worked with the business owners on the client side to derive functional requirements from the business requirements
- Worked with client's data modeling team to model all data structures within the solution, including MDM entities, and made sure the models conformed to the client's standards
- Implemented a business rules engine using ILOG business rules, which enabled the client's business to externalize metadata mappings and validation rules. These rules were invoked by MDM services during runtime. We also setup the workflow process to manage externalized business rules.

Outcomes

The Mastech InfoTrellis team was engaged from the product evaluation phase of the program. We implemented the client's MDM program over five releases. The responsibilities were evenly shared between the MDM Server and the ETL integration space. Due to the high-quality delivery in the early phases, the client engaged us for the entire multi-year, multi-phase program. Mastech InfoTrellis has played a vital role in the success of the client's MDM program till date, identifying relationships between the data, cleansing the existing data, and providing the client's CRM with a single, accurate, comprehensive, and up-to-date view of the customer that is shareable across the client's lines of businesses.