Creating a chain of success.

Client

Leading Global Medical Devices Builder

Project

Data Integration and Analytics, and Process Automation

Highlights

- Conducted a holistic assessment of the client's business environment to create a multi-phase program strategy for MDM Advanced Edition implementation
- Customized the MDM data model and services to provide a proper overview of all products, and to assist in adhering to FDA standards

Implementing a customized MDM solution to enable a 360° view of all products

Client Challenge

The client had embarked on the path to Supply Chain 2020. Some of the key initiatives of this program were better product lifecycle management, accurate product forecasting, analytics, and streamlining the Supply Chain.

On its way to becoming the world's leading medical device manufacturer, the client had acquired various other medical device companies. The product information was flowing from various disparate sources and in different formats. Given the wide and ever-expanding range of products, getting a single unified view of the products was a vital need for the client's Supply Chain 2020 program.

Also, there was a need to automate the submission process of regulatory information to the FDA server, in order to comply with the FDA GUDID regulations.

Mastech InfoTrellis Solution

Mastech InfoTrellis engaged with the client from the initial stages of the multi-phase program in performing various assessments across different lines of businesses, and providing expert insights before implementing the MDM solution. Based on the Current-State Assessment, Mastech InfoTrellis defined the Program Strategy and Roadmap for the client.

In the first phase, a solution was provided which involved a global item repository that supports the Supply Chain 2020 program. The IBM InfoSphere MDM Advanced Edition – Product Domain was chosen for this purpose.

In the second phase of the program, Mastech InfoTrellis customized the MDM data model and services to persist the labelling and regulatory information related to the products. BPM workflows were developed to ensure the sanctity of data being sent to the FDA GUDID servers.

The third phase of the project is in progress. This starts the chain of projects where each of the client's major data sources will be integrated with the MDM solution provided by Mastech InfoTrellis, and MDM will be at the center of all product data. In this phase, we also developed BPM workflows to streamline the NPI (New Product Introduction) process, which had multiple levels of approvers.

- **Current-State Assessment** – Analyzed all source systems, as well as the data generated by them. The product hierarchies and relationships were analyzed, understood, and documented. Based on this analysis, insights were provided to the client to decide on the processes and functionalities to be implemented.

- **Program Strategy & Roadmap** – Formulated a strategy to unify the product data across different source systems, to provide centralized, refined data access across the organization, which can meet any future integration needs. The client wanted to "think big, act small", that is - have a long-term vision, but take small steps towards the envisioned end-state. These small steps were translated into different phases in the MDM program. These phases were further sub-divided into iterations to fit the Mastech InfoTrellis SMART MDM™ delivery methodology, which enables faster and more efficient MDM implementations.
- **Overall Solution and MDM Architecture** – Demonstrated how IBM InfoSphere MDM AE would integrate with existing systems and processes, and how to best architect a solution to meet the programs goals.
- **Logical and Physical Data Modeling** – Based on the requirements, extended the product data model for managing data for different products, to help implement data governance rules. The flexibility of the data model allowed addition of new data attributes.
- **Development and Customization** – Designed and developed the MDM item repository and integration layer using SAP PI, and also, customized the OOTB Product UI and Admin UI. The de-duplication logic to remove duplicate entries across different source systems and geographies was also implemented.
- **Quality Assurance** – Developed test scenarios, test cases, and test data for the ETL and MDM layers, as well as for the Product UI and Admin UI. Then executed each of the test cases, captured the results and verified bug fixes. Provided a Test Strategy document and a Test Summary document at the beginning and end of the project respectively.
- **Infrastructure Management** – Deployed an Infrastructure Specialist at the client site to set up and maintain the environment required for an MDM implementation and take care of all IT infrastructure requirements.
- **Project Management** – Developed a detailed plan for each phase with each phase being further sub-divided into multiple iterations. Coordinated across multiple teams and delivered the solution within expected timelines.
- **Performance Tuning** – Performed system performance testing, with the resulting analysis and insights being used to tune MDM and SAP PI codes for optimum performance
- **User Documentation and Training** – Delivered user documentation and training materials on how to use the Product UI and Admin UI, as well as the overall Product Maintenance Process. Conducted 'Train the Trainers' sessions with a select group of power users, mostly from the client's Global MDM Team.
- **Deployment Support** – Assigned Mastech InfoTrellis MDM Administrators with significant experience implementing and administrating MDM AE Server
- **Production Support** – Provided 24/5 production support for the MDM and SAP PI components since deployment

Outcomes

The client was recently acquired by another major, medical device manufacturer. During the merger, an evaluation was done between the client's MDM solution and that of the acquirer. The solution provided by Mastech InfoTrellis was chosen as the better of the two, on all judgement parameters.

The UDI solution provided by Mastech InfoTrellis submitted 30,000 records successfully, with the FDA GUDID system, within 3 weeks. In contrast, the client's acquirer had a UDI solution which was able to submit 10k records in a span of 2 months.