



## Gaining insight from information.

### Client

Multinational Information Technology Company

### Project

Data Synchronization, Sanitization, and Analytics

### Highlights

- Conducted analysis of source data and synchronized the information in a Master Data hub, connecting all relevant information, to provide the most useful insights
- Created a Customer Dashboard, which performed analysis and provided quality information, in real-time, on all the client's customers.

## Creating a data lake from which to derive meaningful customer insights

### Client Challenge

The client wanted to provide exceptional customer experience across all touchpoints. The challenge, however, was to analyze the vast amount of source data available, and make that data relevant for more resonant customer communications.

### Mastech InfoTrellis Solution

We built a data lake on the client's Cloudera CDH cluster, and paired it with real-time services through a Customer Dashboard. In detail, we conducted the following activities for the client:

- Analysis of source data, including mappings to a schema in the data lake
- Management of the data lake for trusted use for ad-hoc analytics, with big data analytics and visualization tools (e.g. Datameer)
- Creation of Informatica BDE jobs for lift-and-shift onto HDFS initial load and daily deltas into the data lake
- Streaming of webchats and emails onto HDFS
- Synchronization of IBM MDM data based on new records, updated records, collapsed records, and split records
- Connection of orders, service history, quotes, opportunities, and campaigns to customer records through reference keys from the MDM hub
- Connection of webchats, emails, social, and browsing history to customer records through contextual matching technology
- Enrichment of customer records with insights from unstructured data, including competitor mentions, keyword mentions, product mentions, and sentiment
- Regular reports on data quality and data change metrics
- Creation of a Customer 360 Dashboard as a shared service, embedded in Salesforce and integrated with existing applications
- Creation of services for real-time customers

### Outcomes

Our solution helped sales and marketing personnel populate the most relevant and valuable, universally available information. This enabled scalable, data-driven, personalized communication with customers, therein considerably increasing customer service quality.