

# Enhance Client Relationship with Syntel's Client Analytics Engine

Part of a global financial services holding company, our client is a large investment banking firm. Syntel helped the firm build a client analytics engine using the Big Data platform and machine learning algorithms. The engine helped address multiple use-cases such as analysis of client's behavior and personalized targeting offers.

## CHALLENGES

The firm had fragmented analytics approaches across departments and geographies, which resulted in the following challenges:

- Inability to correlate different data-points about a client like readership and trading
- Individual sales groups with separate targeting engines lacked global view of client
- Quantitative models were built using legacy tools like spreadsheet on small data samples

## SYNTEL'S SOLUTION

Syntel partnered the client throughout the Big Data journey, starting from use-case identification and architecture definition to production implementation and support. The key components of the solution were:

- Data Lake was built using Hadoop to efficiently store all client related transactions, CRM, emails, chat logs as well as other raw data elements including social media
- Conducted data aggregation and pre-processing to generate features for training predictive models in Hive-QL / MapReduce
- Created a multi-modal recommendation engine by combining custom-developed algorithms and machine learning algorithms
- User-similarity based collaborative filtering and matrix factorization (Alternating Least Squares - ALS) were built to derive recommendations for clients
- Leveraged network modeling for spam-detection, property-graph based entity resolution, and shortest path identification
- Developed network visualization using Gephi and SigmaJS and implemented Force Atlas 2 algorithm
- Technology stack used – Hadoop, Java MapReduce, Hive-QL, Spark-MLLib, Mahout, Oozie, Gephi, SigmaJS, and REST API

## VOICE OF THE CUSTOMER

During various engagement feedback sessions, client has appreciated Syntel for its depth in data science skills, Big Data thought leadership, and its efforts in providing on-time and robust deliverables.

## PARTNERING FOR EXCELLENCE

It makes Syntel, along with the client, proud to have a strategic alliance with one of the industry's top leading tech-vendors:

- Alliance with Cloudera - Alliance for providing Big Data thought leadership and certified solutions leveraging joint capabilities

## BUSINESS BENEFITS

400%

increase in the efficiency of identifying the shortest path to reach a potential client

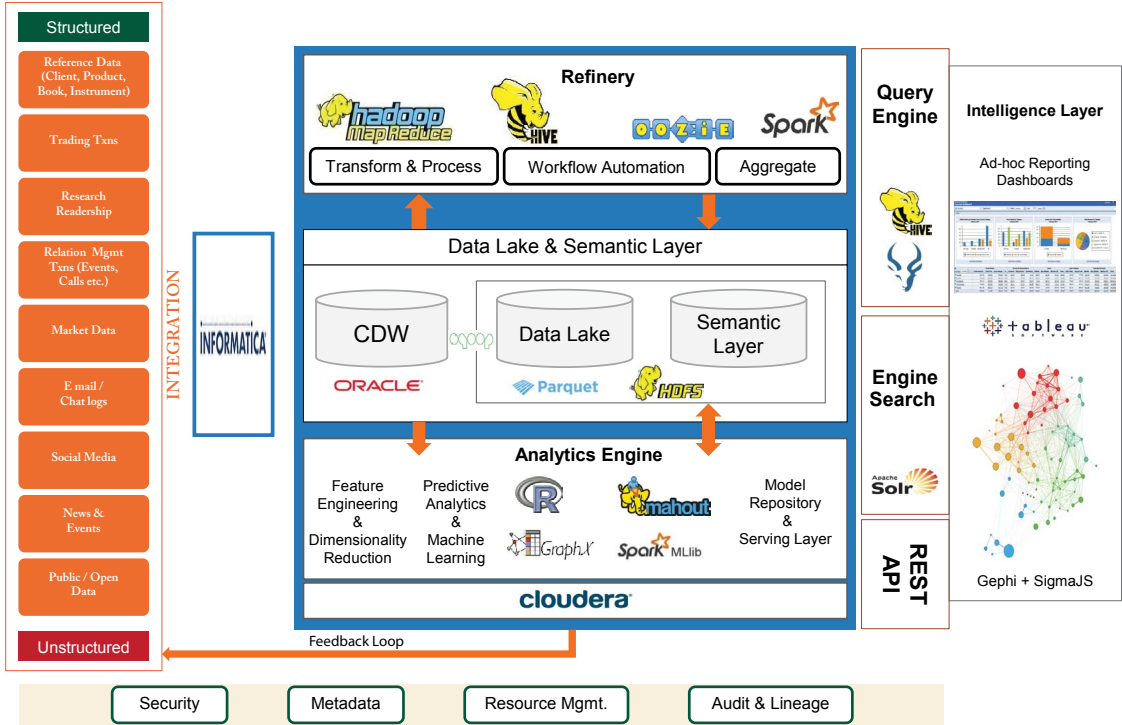
10%

increase in revenues based on personalized client targeting offers

## Beyond Business Benefits

- Increased revenue opportunity with improved client targeting platform
- Developed self-service recommendation platform for sales and research analyst
- Created a unified view of relationship network by combining internal and external data

DATA SOURCES



WHY SYNTEL?

- **Size, Scale and History** — 24,000+ associates at 30+ offices on four continents; stable and profitable since 1980 (NASDAQ: SYNT)
- **Solutions for the Digital Age** — Evolve the core to drive efficiency, agility and value; Go digital to engage customers, discover new insights and create a more connected enterprise.
- **“Customer for Life” Philosophy** — Focus on world-class customer service with the agility to meet changing client needs
- **Investing in Excellence** — Sustained investments in world-class facilities, domain expertise, IP-based solutions, tools and accelerators
- **Integrated IT and KPO** — Tight technology and process alignment; industry and domain-focused solutions

About Syntel

Syntel (Nasdaq:SYNT) is a leading global provider of integrated information technology and knowledge process services. Syntel helps global enterprises evolve the core by leveraging automation, scaled agile and cloud platforms to build efficient application development and management, testing and infrastructure solutions. Syntel’s digital services enable companies to engage customers, discover new insights through analytics, and create a more connected enterprise through the internet of things. Syntel’s "Customer for Life" philosophy builds collaborative partnerships and creates long-term client value by investing in IP, solutions and industry-focused delivery teams with deep domain knowledge.

To learn more, visit us at [www.syntelinc.com](http://www.syntelinc.com)

