

Case study

Semantically Enriched Data Fabric Powers Trade Management Application

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Introduction

Whether you operate in capital markets, asset management, consumer finance or insurance, you need solid information to make decisions that drive positive organization, stakeholder, and customer outcomes. As the volume of data flowing into financial organizations continues to explode, the ability to rapidly access, manage, and make sense of it is key to managing risk and improving ROI.

Today, financial services organizations need innovative solutions that enable them to:

- Unify and harmonize a variety of data types from disparate sources to provide a single view of the organization.
- Provide relevant information to a broad range of internal and external stakeholders in real-time for analysis, reporting, and management.
- Ensure compliance with regulatory mandates to decrease risk and avoid sanctions.

The key to managing enterprise data is harmonization, the ability to provide a holistic view of all information, structured and unstructured, regardless of location and type that can be used to manage the business.

The Opportunity

A global fintech with over \$8 billion market capitalization that handles millions of trades each day involving trillions of dollars, supports communications that reach 75% of North American households, and manages shareholder voting in 90 countries, leveraged Smartlogic's Semantic AI platform as part of their Data Fabric, which regulates and supports the processing, analysis, and management of enterprise data.

The project - a global post trade management application – supports the organization's information initiatives to:

- Provide a single view into a client's global trade positions - enhancing key client services
- Reduce complexity by consolidating systems and eliminating redundancy
- Enable regulatory compliance through holistic governance
- Integrate with a client's complex IT ecosystem and/or third-party systems
- Provide an extensible, component-based system that can meet client demands
- Establish a unified user interface that integrates multiple applications for an enhanced user experience.

Semaphore is a key component in the Data Fabric. Semaphore model management and visualization tools allow them to tune, streamline, simplify, and improve the model and enable them to deploy and integrate information universes.

How They Did It

The Data Fabric platform uses a document-centric NoSQL database. It combines data, search style indexing, and application server behaviours previously only available through discrete entities (i.e. databases, data warehouses, data lakes, or ETL tools).

The data fabric:

- Uses Semaphore's model-driven approach to process both structured and unstructured data and employs a data access standard of ontologies that support multiple data types.
- Engages an event-driven data pipeline tool that supports a wide variety of functions and services.
- Is driven by a knowledge graph containing all the concepts in a specific domain and how those concepts are used to support various business operations.
- Scales different services/components independently to meet the functional and performance needs of individual clients/users/applications.

Using Semaphore's Knowledge Model Management (KMM) model creation and governance capabilities, model developers, subject matter experts and other stakeholders iteratively created a common and standardized set of taxonomies using industry standards such as FIBO, SWIFT. Semaphore's task-based model governance capabilities allowed them to improve model security, manage versioning, and eliminate manual model, term, and relationship tracking via spreadsheet.

Semaphore's Model Mapping Tool (MMT) enabled them to automatically create relationships between proprietary and industry-standard concepts. This allows them to integrate Semaphore's model index into the data fabric to identify and capture the sequence of information for financial transactions from the clearing house.

The Results

The organization has a harmonized set of financial vocabularies, which include proprietary and industry-standard information, that are consistently used across departments. Model versioning and governance workflows support existing enterprise policies and best practices associated with model changes in a precise and consistent manner.

Semaphore's modules and capabilities allow them to tune, streamline, simplify and improve the ontology using a collaborative and iterative process:

- Tune and enrich graph to power real-time publication at scale by reducing query computation
- Streamline routing and processing via smarter interrogation on ingest
- Simplify Data Fabric schemas and APIs and rationalize the model for all processing engines.
- Identify where each concept in the model/ontology is used to speed impact assessment and reduce errors due to the misidentification of ontology usage.

The Data Fabric and its associated services are foundational for the organization's next generation Global Post Trade Management Platform (GPTM) technology. It allows them to easily deploy new and integrate existing universes to support their clients.

To learn about the capabilities of Semaphore, our Semantic AI platform, connect with us at info@smartlogic.com or contact your Smartlogic Account Manager

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