



Data Virtualization Improves Prescription Analytics

BUSINESS BACKGROUND

As one of the world's 20 leading pharmaceutical companies, The Firm operates globally with 145 affiliates and more than 42,000 employees. Since it was founded, the family-owned firm has been committed to researching, developing, manufacturing and marketing novel products of high therapeutic value for human and veterinary medicine.

CASE STUDY BACKGROUND

The Prescription Medicines IT group focuses on business intelligence, analytics and the alignment of IT initiatives with business strategies. This group also works closely with the enterprise architecture group to provide an information architecture service across all of The Firm. Because the pharmaceutical industry is so competitive, the company's analytical efforts and marketing targets must be tightly focused to enable it to stay ahead of the game.

THE PROBLEM

The biggest challenge for the Prescription Medicines IT group was to provide the best possible information on which to base critical decisions. Example of critical decisions include:

- Where to most effectively market specific drugs, such as targeting poor dietary needs based on local demographics; or
- How to distribute drug samples to physicians across different geographic areas and balance the cost/benefit of the locations.

The information needed to effectively understand and analyze the business was very difficult to obtain. First, some states in the U.S. have limits on direct contact with physicians, which eliminated a data source for The Firm. Also, the lack of a single, common source of data for analytics was inhibiting. As multiple analytical groups ran reports and adjusted the data for their own needs, their reports may not have matched those of other groups. Finally, data sources were spread across multiple physical locations and technologies. To overcome these challenges, the goal was to bridge the data without:

- Replicating and moving the source data; or
- Requiring data consumers to write programs to access the source data.

"We want to embed analytics back into the data virtualization layer so they can be shared. This is a great example of sharing a methodology that is critical to our efforts of reuse and to eliminate redundancy wherever we can. Data virtualization will enable us to incorporate additional data sources into this environment."

Associate Director and Data Architect,
 Prescription Medicines IT,
 Leading Pharmaceutical Company

AT-A-GLANCE

Industry

Pharmaceutical

Business Problem Solved

IT Group overcame data access and replication challenges to make available up-to-date, accurate data upon which to make critical business decisions.

Data Integration Patterns

- Data Virtualization
- Data Federation
- Data Warehouse Extension
- Enterprise Data Sharing

Composite Software Products

Composite Information Server 5.2

Data Sources

- Data warehouse; contains 7TB of detailed data
- Prescription data purchased from third parties
- Sales and Marketing data

Data Consumers

- SAS
- Cognos
- Spotfire

Platform

Linux

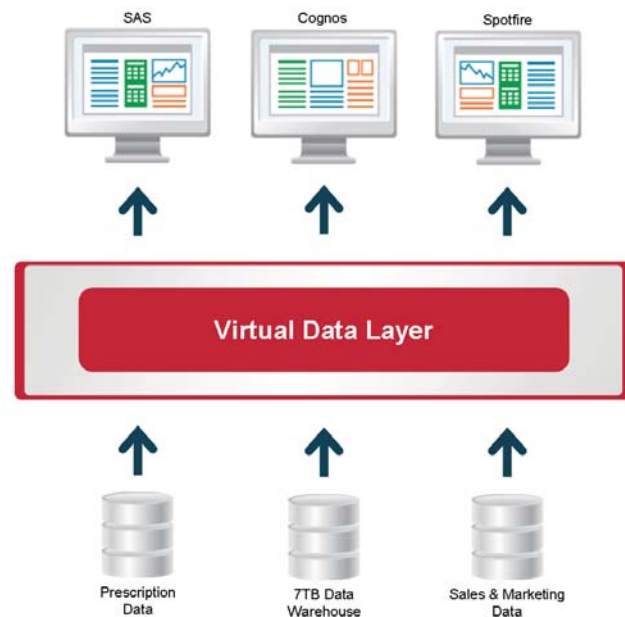
THE SOLUTION

The Firm's Prescription Medicine group implemented an organization-wide data virtualization layer powered by the Composite Software's Data Virtualization Platform. Composite provides access to data across all divisions within Prescription Medicines through virtual views that abstract and integrate data stored in multiple physical locations and technologies. This enables Prescription Medicines to replace physical data marts with virtual ones, minimizing data latency, the cost and the effort required to move data, refresh data, and maintain physical data objects.

From an enterprise architecture point of view, Composite data virtualization is implemented as a semantic abstraction or data services layer in support of multiple consuming applications. Sometimes called Information-As-A-Service by Forrester Research or SOA Data Services by Gartner, this middle layer of reusable services decouples the underlying source data and consuming solution layers. This provides the flexibility required to deal with each layer in the most effective manner, as well as the agility to work quickly across layers as applications, schemas or underlying data sources changed.

With Composite, new capabilities and benefits are available to users including:

- Effective data validation
- Incorporation of valuable new aggregates in Composite
- Standardizing and sharing analytical methods
- Purchase of common external data, such as clinical trials
- Predictive versus retrospective analytics
- More efficient allocation of valuable IT resources



A virtual layer based on the Composite Information Server.

THE RESULT

- Reduced infrastructure costs
- Increased object reuse
- Account master data quality improvement