



# Virtual Data Layer Accelerates Financial Research

## BUSINESS BACKGROUND

The Firm is a global leader in multi-manager investment services, providing investment products and services in more than 40 countries.

## CASE STUDY BACKGROUND

The Firm is dedicated to finding the right mix of products and services for its institutional customers. This includes help with portfolio manager transition, a complete investment management and plan administration solution, customized funds for defined contribution plans, and more. The Firm's advisors guide customers through the strategic planning and implementation phases, and help them evaluate the results. To accomplish this, the Firm's Investment Management and Research IT team provides research data and information to 300+ employees supporting Fund management and other departments.

## THE PROBLEM

Accessing the data required expert knowledge of the Research Database (from dozens of disparate data sources in several data formats) and T-SQL. In order to serve 300+ users with limited resources in a timely fashion, developers utilize various pre-built SQL server views to gain certain level of efficiency. These views were functional but extremely resource intensive and cumbersome to maintain. Furthermore, the maintenance effort on different views, essentially several duplicates, was very wasteful.

## ALTERNATIVES CONSIDERED

In the past, IT had to utilize various SQL Server views to make data access more meaningful for products data. While these views were functional, they were extremely slow, cumbersome and expensive to maintain. As such, it was necessary, for performance reasons, to implement many different views that contained mostly the same information but with minor differences.

*"Within just a few short hours we replicated several views that in our legacy SQL environment that took weeks of performance tuning to get right. Additionally, we were able to create a consolidated 'composition' view that contained all fields and performed consistently well for returning data in functional representations. This composition view allows us to be able to respond quickly to changes requested by the business."*

Project Manager,  
Investment Management & Research

## AT-A-GLANCE

### Industry

Financial Services

### Business Problem Solved

Rapid development of and access to critical Research Data

### Data Integration Patterns

- Data Virtualization platform for core research database and supporting data sources
- Data Federation to deliver federated information from a virtual abstraction layer to applications and reports faster and cheaper

### Composite Software Products

Composite Information Server 4.6

### Data Sources

- Oracle datamart
- SQL Server Research database

### Data Consumers

- Fund and Manager Accounts

### Platform

Linux and Solaris

## THE SOLUTION

The goal was to use data virtualization technology to provide a single, unified, re-usable view for real time data access that improves performance and time to market while greatly reducing initial setup and ongoing support costs.

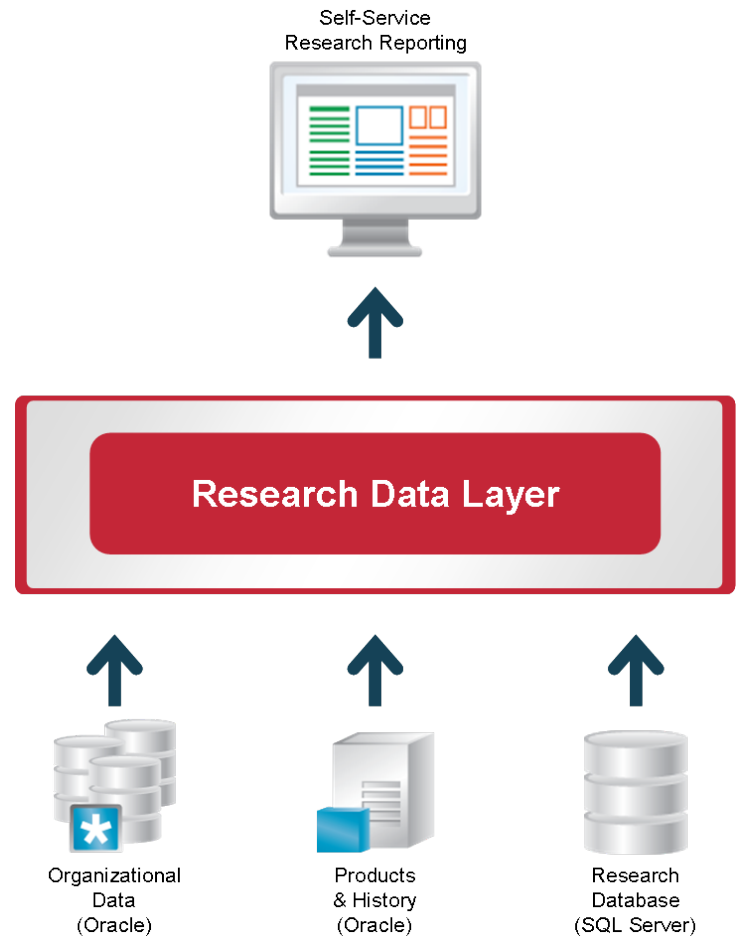
These Composite features helped support the project goals:

- Design time: easy-to-use modeler & code generator
- Run time: high performance query & reliable delivery

With the Composite approach, the team used the model of “Abstraction, Composition, and Application” layers of views to create a more consolidated representation of the data. With only a few hours of work, developers can replicate several views. In the previous legacy SQL environment, this required weeks of performance tuning to improve. Additionally, developers created a consolidated “composition” view that contained all fields and performed consistently well for returning data in functional representations. This composition view makes it easy to respond quickly to changes requested by the business.

Many times users ask for data that compares money manager products with funds. The SQL queries used to bring these data sets together required expert knowledge of the Research Database and T-SQL. Additionally, integration with information from products, history, and organization data sources is sometimes required. Again, with a few hours of labor, developers were able to build a consolidated view of fund and manager accounts that integrated all the legacy views.

With the data accessible in such a logical and easy to use structure, users without extensive Research Database or SQL knowledge now easily query this view through familiar tools such as Excel, Cognos, SQL Reporting Services, and more.



A research data virtualization layer based on the Composite Information Server.

## THE RESULT

- \$2-4 million per year savings from productivity improvements
- 1.5% revenue increase through faster access to information by key line-of-business Fund Managers
- 150% ROI in 6 months elapsed time
- 60% reduction in development time
- 250% faster time-to-value for new views and applications on an annual budget that totals several \$100,000's