

CASE STUDY:
*Sales and Marketing
Optimization for
Financial Services*

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Altosoft

CASE STUDY:
**SALES AND MARKETING OPTIMIZATION FOR INVESTMENT
AND RETIREMENT SERVICES**

The investment and retirement services division of one of the largest commercial banks in the United States faced serious challenges harnessing and analyzing data related to sales, customer retention, and asset management activities. With relevant data located in multiple terabyte-sized operational data stores, traditional data warehousing techniques had proved inadequate. Using its InsightBI and MetricsMart products, Altosoft built a solution that delivered the analytics the bank required in just one week, without requiring additional investment in ETL software or data warehouse development.

Customer Challenge

The investment and retirement services division of a large domestic bank required better analytics in order to support its primary business activity, selling and marketing various investment vehicles to consumers. In order to optimize sales and marketing efforts, the bank needed to be able to answer questions such as:

- Which investment vehicles or retirement products were the most profitable to the bank?
- What was the correlation between investment vehicle profitability and customer satisfaction?
- How was investment product revenue spread across various regions, markets, types of the customers, products, etc.?
- Which sales groups (regional, functional, etc.) and individual representatives were most successful selling which investment vehicles and retaining existing customers?

This data would enable the bank to make better decisions in terms of how it invested resources in its sales and marketing programs. The corporate goal was to maximize the impact of sales and marketing resources to drive the highest overall combination of profitability and customer satisfaction.

The data required to answer these questions existed in three separate operational data stores (one instance of Teradata and two instances of Oracle) containing customer data, product performance data, and sales data. Each database contained about a terabyte of data. With the bank's existing systems and semi-automated processes, it typically took 45 to 60 days to generate only a limited amount of performance analysis from the data in these systems. In many cases, the analysis was out of date before it even became available to decision makers. In many cases the analysis only represented a subset of the essential metrics required to optimally manage the business. The bank needed to find a way to deliver a complete and comprehensive analysis in a significantly reduced time frame.

A traditional approach to this problem would start with the construction of a separate data warehouse. Data warehouse projects typically take many months and require investment in significant amounts of hardware and storage. In addition, a data warehouse project requires that all the potential dimensions of analysis and paths for analytical drill-down be defined in advance. For example, in this case, the bank would need to pre-determine analysis by, say, region, and then by sales person, investment product type, etc. If a dimension were neglected or needed to be added later, the entire cube would have to be re-dimensioned and redeployed.

Typically, the data warehouse would be programmatically loaded using ETL (extract, transform, load) software. This complex software would also have to be implemented, customized, and maintained.

In addition to time and complexity, certain additional factors made a traditional data warehouse approach impossible for the bank. Specifically, the nature of this particular data analysis would have required complex and extremely inefficient outer joins across the three different terabyte-sized databases. Because the bank's databases are optimized for operational performance and are not indexed for this type of query, completion of these joins would require row by row analysis across millions of records. For a daily update, the bank estimated that calculation of this cube would take approximately 3-4 hours. Initial calculation of the warehouse could take many days. This was not acceptable to the bank since the three data stores, tied to mission-critical operational systems, simply could not be burdened by that analysis on either an initial or ongoing basis.

Moving the data into a new warehouse would also present a significant security concern due to the sensitive nature of the records.

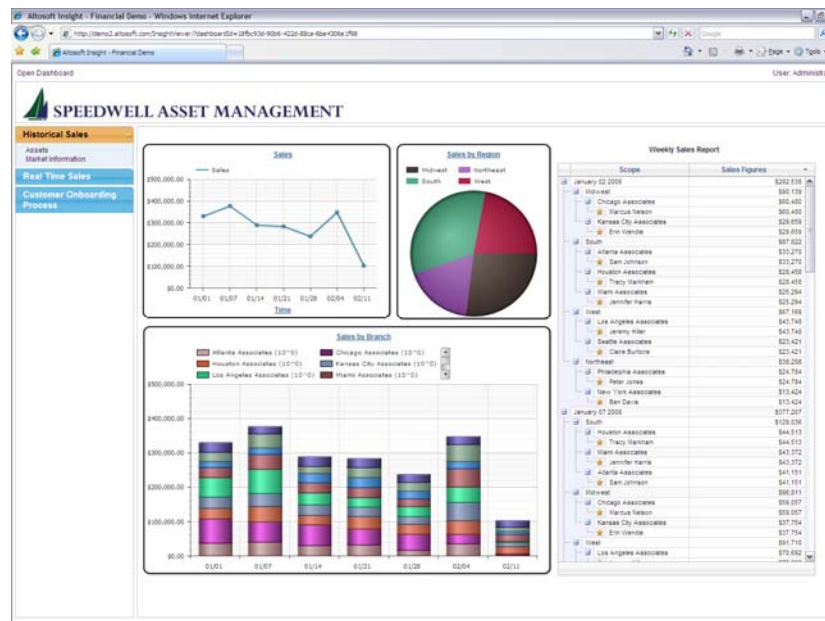
Altosoft's Approach

Rather than replicate data from operational systems into a rigid (but optimized) data warehouse, Altosoft's approach is to leave the data in place in existing operational systems. Altosoft analyzed the data in the bank's operational systems, using its own highly optimized, in-memory calculation engine to perform the analysis. Altosoft relied on the operational databases to simply do what they do best – retrieve data. Unlike traditional warehouse approaches, Altosoft does not use SQL to perform operations for which it was not optimally intended. SQL is restricted to record selection and fetching mechanisms (including the outer joins discussed above, as well as additional calculations).

As a result, the daily update that would have required 3-4 hours of processing time for calculation of a data cube takes Altosoft approximately eight minutes. The load placed on the bank's operational data stores is reduced to a minimum.

Using this approach, Altosoft was able to demonstrate a complete solution to the bank in less than one week. According to the bank, Altosoft was able to show them "data that [they had] never seen before." Data and analysis were delivered directly to relevant bank employees using Altosoft's secure, personalized, web-based dashboard system. This dashboard fully supports interactive visualization and dimensional analysis of data. The system gives

the bank additional flexibility – if it needs to change or expand KPIs, it can do so without time-consuming and burdensome recalculation of data cubes.



Altosoft delivers analytics through easy-to-use, interactive dashboards

Finally, using Altosoft's integrated alerting and incident tracking capability, the bank now has real-time visibility and monitoring of its sales activity. This means that if an investment vehicle is extremely profitable for the bank and is also highly appealing to a certain customer demographic, the bank can immediately alert its sales force to prioritize marketing of that product. Previously, this analysis took 45-60 days, at which point market dynamics had often changed.

Conclusions

Using Altosoft Insight, the bank now has the ability to optimize sales and marketing of its retirement products. Within a matter of days, Altosoft was able to deliver valuable analytics that the bank had not been able to produce previously. Implementation of Altosoft avoided the complexity of a typical ETL implementation and data warehousing project, significantly reducing the amount of resources required to support the project. Finally, the Altosoft system places a minimal burden on operational data stores, so the bank's critical systems are not impacted by the project.

About Altosoft

At Altosoft, we make BI work.

Altosoft's process-aware solutions eliminate the cost and complexity of conventional BI while delivering advanced functionality for operational performance improvement. Altosoft delivers the three critical enablers needed to transform existing business intelligence into a powerful, flexible engine of competitive advantage. First, Altosoft's business process intelligence capability adds essential process monitoring and analysis capability. Second, Altosoft provides agile data integration that makes the hardest part of BI easy by gathering data from various sources and converting dynamically it to KPI metrics. Finally, Altosoft facilitates rapid, reliable BI solution development with guided, code-free configuration and data governance features.

Altosoft's revolutionary, 100% codeless approach features ultra low-latency data monitoring and analysis across operational databases, warehouses, and other data sources; integrates real-time event monitoring and business process optimization; and enables dashboard development in minutes with a unique browser-based, drag-and-drop interface.

Headquartered outside of Philadelphia, Pennsylvania, Altosoft delivers solutions for commercial and government organizations worldwide.

