Private Investment Firm

Investment P&L Analytics

PCA was brought in "under the wire" as part of a critical project takeover for one of the nation's leading private managers of fixed income and credit instruments.

Business Needs and Challenges

This leading Private Investment Firm (PIF) needed a solution for analyzing the performance of their investments, and the ability to track performance of investment professionals who manage them. With a growing database and long list of performance metrics and sophisticated calculations, their business needs had far outgrown the capabilities of their current Excel / MS Access system. The system required intensive manual data manipulation — often taking 6-8 weeks to perform tasks that delayed important business decisions — and lacked connectivity and visibility to the team of investment professionals.

PIF executives liked Excel's ease-of-use and flexibility, but they realized that a high-performance investment P&L analytics "engine" capable of managing huge amounts of data with complex calculations tied to specific people and investment positions would provide a far more efficient, accurate, and timely approach. After concluding that commercially available fixed income investment software was too rigid to customize and validate, PIF searched for a custom database development partner with the right combination of business, technical and mathematical skills that could meet their unique and very demanding business requirements:

- A comprehensive, closed-loop investment performance monitoring tool – one that enabled managers and administrators to assign staff, and track investment performance from a fund (profitability) as well as employee (performance) perspectives

- A real-time reporting solution that enabled senior management to monitor investment performance, individual and team performance, and ultimately, a consistent method to calculate investment professional compensation

- A very flexible and easy-to-use system that promoted rapid deployment and adoption with minimal training

PCA

The Project Takeover

PIF engaged an outside software development firm to design and develop a custom database solution. After many months, man-hours and failed attempts, PIF decided to pull the plug on the vendor and evaluate its alternatives.

Management decided that their best and perhaps only option was to develop the new system in-house. They had some of the right database and software engineering skills, but most of their expertise centered on browser-based systems. In addition, PIF lacked the technical resources and expertise to drive the underlying business logic, analytics, and interface design. They invited a few select custom development firms to bid on co-developing the project under strict fixed-cost, fixed-time frame constraints.

PIF selected PCA due to its strong track record of designing and developing complex database and UI solutions, extensive knowledge of the financial investment domain and underlying calculations, and expertise with the latest Microsoft analytics technologies. It was also evident that PCA's Smart Client approach coupled with a rapid prototyping methodology provided the most efficient and perhaps only viable path to meeting very tight cost and schedule constraints.

The Design Phase

A critical business initiative was ~1 year behind schedule. The objectives were clear, the data was available, the Client team was highly experienced and motivated to get the project back on track, so the PCA team simply "jumped in" with the rapid Prototype Design phase.

Several intense months of back-and-forth prototype design iterations and detailed feedback from the PIF team produced a PIF-approved system design, and the PCA team proceeded directly to the project development phase.

The PCA Solution

From a business perspective — the new "Investment Performance Monitoring and Analytics" solution was successful in providing executives, senior managers and investment professionals with dynamic, real-time reporting capability on a wide variety of investment views and attributes.

Because the system was used to track investment performance and associated compensation, the solution was designed to support both "work-in-progress" and "published" versions on the same set of data — a capability recommended by PCA to provide executive review approval, and the ability to override certain calculations to accommodate special business considerations.

Key capabilities of the new Investment Performance Monitoring and Analytics solution included:

- Dynamic, in-progress performance monitoring across all firm investments and investment professionals
- Centralized staff assignment provisioning to drive ongoing investment analytics tasks
- Multidimensional ad-hoc and custom reporting based on fund, investment, individual, and team attributes
- Role-based security with application privilege controls at the data, features, reporting, and investment team levels
- Intuitive "Microsoft Office Desktop Application" interface with familiar ease-of-use and functionality

From a technology perspective, the new system married the best of Microsoft usability and high-performance analytics. Built on the Microsoft Smart Client Platform (SQL Server +.NET + SQL Server Analysis Services), the new system also leveraged PIF's substantial investment in the Microsoft platform.

Initial Beta release of the new Investment Performance Monitoring and Analytics solution was delivered by PCA in 3 short months following PIF-approval of a final Prototype design. The new system provides senior management, administrators, and users with centralized management of performance related to company-wide investments and individuals, with robust analytics to handle complex calculations and custom queries based on an endless variety of project attributes.

Key Business Benefits

Benefits included:

- Considerable savings vs. commercially available software products (lower total cost of ownership)
- 8x reduction in data processing time
- State-of-the-art architecture design and coding standards that enabled in-house team to maintain and extend the system over time in a step-wise, cost effective manner

The PIF project was truly a "TurdBlossom" — PCA took over a very complex project that was stinking badly inside the firm, and within a very short period of time delivered a reliable, systematic approach to meeting the firm's investment P&L and compensation needs.

"PCA provided us with a top-notch team of business analysts and software engineers who demonstrated early on that they clearly understood our objectives, and had the business and technical acumen to execute. The coordination and communication between our two teams was seamless, enabling us to deliver in months what our original vendor failed to deliver in over a year.

PCA's combination of exceptional SQL and UI skills, keen business thinking, and thorough understanding of the critical success factors helped us deliver on time, and on budget. They understood, they delivered, and they exceeded our expectations."

Anon Omous, VP Technology