

CASE STUDY

Trading Services

Background

Our client, a division of one of the top five brokerage firms in the U.S., is a leading provider of operations support and institutional trading services to investment managers. As its trading volume increased, their traditional paper and phone-based system could not scale to meet the demand. Our client needed an automated trading system that could quickly introduce new services to customers and provide a platform to support trade fulfillment through multiple channels and trading back-ends.

The solution: Develop a trading platform that is both scalable and extensible, accommodating the continued increase in trading volume, and permitting new types of securities, channels, and trading engines to be easily added as new services are offered.

Now 80 percent of all trades submitted can be processed automatically, enabling faster order fulfillment and lower cost per transaction.

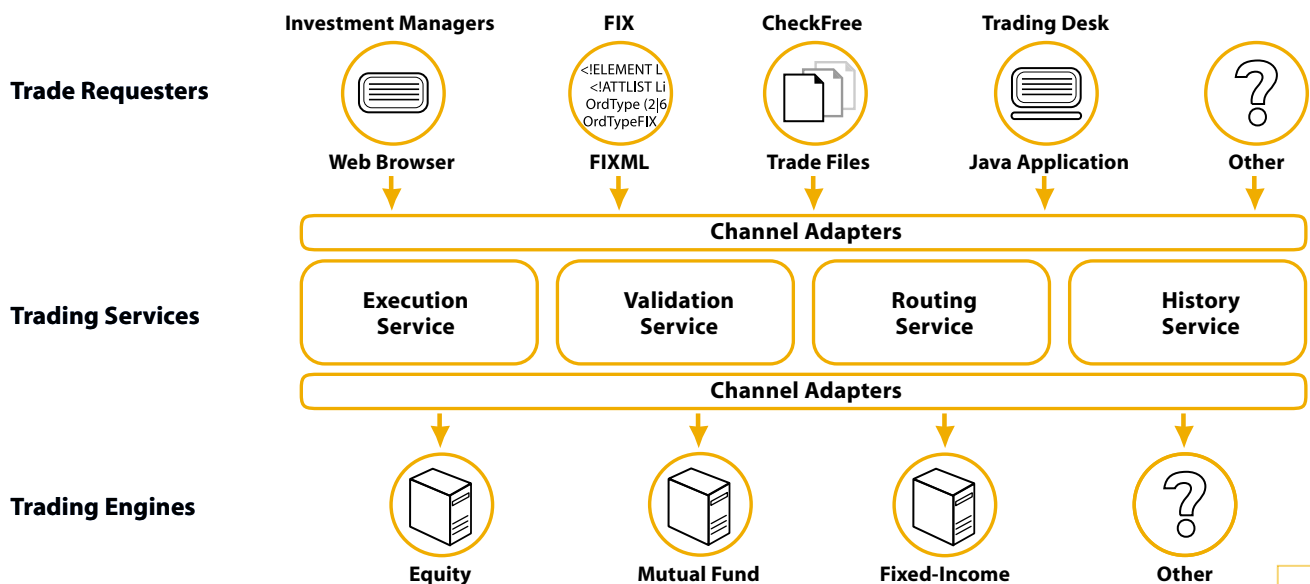
Project Goals

Solution Architects Inc. was retained to assist with the design and development of a Trading Service that would provide full trading capabilities to more than 6,000 investment management firms. The service needed to accept trades via multiple channels and route them to multiple back-end systems for timely execution, while relying on minimal manual interaction.

Design

The Trading Service provides a single point at which trades from multiple channels are accepted and sent to multiple back-end systems for fulfillment.

Trading Service



The system provides fully automated trade execution as well as these order management functions:

⇒ **Multi-Channel Acceptance**

Equity, mutual fund, and fixed-income trades are accepted from multiple channels. Web-based trading services, orders using the Financial Information eXchange (FIX) protocol, and the publicly available CheckFree system are all similarly routed. Additional channels can be easily supported.

⇒ **Automated Validation/Trade Management**

Most trades are automatically validated and executed. Trades with errors or those requiring review are automatically routed to the appropriate trading operations staff for resubmission in near real time. Error handling can be customized for specific channels, allowing new channels to be easily added.

⇒ **Automated Routing**

Equities, mutual funds, and fixed-income securities can be traded either during or after hours, and correctly routed to the appropriate back-end for execution.

⇒ **History**

The entire audit history of a trade from the time it was received is available, an invaluable function as trading occurs constantly, not just when traders are at their desks.

Compared to a similar system developed by our client, using SolutionPath:

⇒ ***Resulted in 66 percent less staff time to develop (240 staff months vs. 74 staff months)***

⇒ ***Cost 87 percent less to develop, representing about \$8 million in savings***

Results

80% of all trades are now executed without manual intervention and the remainder are routed automatically for immediate attention, resulting in lower costs and faster execution.

The layered structure of the Trading Service platform allows new services, securities, and channels to be introduced rapidly and efficiently, keeping our client's customers on the edge of business innovation. Customers will see faster and more stable product development.

SolutionPath™

The Trading Service was designed and developed using the SolutionPath process, architecture, and reusable components. Significant reuse was achieved with common business models, validation, state management, database access, transaction management, and error handling code used in the Trading Service layer and across the multiple channels. The more efficient, layered design capitalizes on Solution Architects' years of experience in object-oriented design and development.

The net result: Since many components were already built, developers created much less new code and performed much less testing, speeding time-to-market and reducing development costs, while increasing quality.

"...With high reuse results like these, we can reduce development costs significantly, allowing us to save money and invest that savings in other benefits for our clients."

— Senior Vice President, Investment Managers Technology.

Follow the Path to Success: SolutionPath