

# HOW A TIER-ONE BANK MAKES PROGRESS



## INTERNALIZATION HELPS A TIER-ONE BANK CUT FX DEALING LATENCY AND COSTS

Beset by a challenging economic environment and regulatory constraints that threaten traditional lucrative trading activities, large banks are pressed to find new business opportunities and cut costs.

One innovative way to achieve this objective is through the crossing and internal matching of deals. Rather than going to market for each and every trade, large banks can match or cross the stream of buy and sell orders that comes through the sell side trading desk from institutional and retail clients, direct market access platforms or algorithmic trading strategies. This strategy of internalization not only reduces execution costs, but can also lower the risk of moving market prices with large-sized trades.

### **CHALLENGE**

*Exploding trade volumes and associated transaction fees driving costs of client-focused FX electronic trading*

### **SOLUTION**

*Real-time automated crossing and internal matching of deals with the Progress® Apama® FX e-Commerce suite*

### **BENEFIT**

*Reduced transaction fees, faster dealing, reduced market impact*

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This idea is fast taking hold. An Aite Group study, "Capital Markets CIO Technology Survey for 2011," says that 38% of respondents cited crossing and internal matching as a top priority.

As a case in point, when one Progress customer, a tier-one investment bank's London-based foreign exchange division, was experiencing exploding trade volumes on its client-focused FX electronic trading solutions, it wanted to reduce transaction fees and speed up dealing. Internal matching was an elegant solution: matching some of the bank's trade flow inside the bank would save on transaction fees, minimize market impact and speed up the deals' time-to market.

This bank imagined an internal order routing system, but it would need one which could enable it to see, manage, match and control the risk on all of the FX trades coming from outside and from within the bank. It found a solution to this problem in the Progress Apama FX e-Commerce suite.

## **COSTS RISE AS FX ORDER FLOWS GROW**

Currency markets continue to attract liquidity, and FX is growing as an asset class, despite the uncertain state of the economy. Although FX trading volumes have risen since the credit crisis, banks are making less money overall in their fixed income, currency and commodities divisions (FICC) due to market volatility and difficult trading conditions. This is leading them to take a fresh look at cost-cutting wherever possible.

This tier-one Bank began by looking at the volume of FX order flow coming from its client-facing trading platforms along with additional FX inflow from institutional and retail businesses. Also, its own internal trading desks, for example, for commodities and fixed income, had FX components to their trades. The bank realized that its practice of putting FX buyers and sellers together externally was sending its transaction costs through the roof.

Because most trades were through external brokers or FX trading platforms, there were fees attached to nearly every deal. As volumes continued to increase, transaction costs would only get higher. Also, going outside of the bank to trade can slow the trading process down. It may bring

only a 100 millisecond delay, but that can mean the difference between profit and loss in today's high-speed trading environment.

## NECESSITY IS THE MOTHER OF INVENTION

The bank realized that by using an internalization strategy, it could act almost as an exchange—centrally matching buyers and sellers. This would help to eliminate costs such as external FX electronic transaction and settlement fees, thereby reducing overall costs for the bank and for its customers. The trade off could be less liquidity than if it went out to market, but this would improve with increased use.

The principle of accepting an order and publishing it out to a trading platform or matching engine is the same whether it goes out-of-house or stays in-house. The difference is that the bank is making a market inside the company.

The bank was already using the Progress Apama FX Aggregation solution in three different locations: New York, London and another European locale.

The bank was using the Apama FX aggregation piece of the implementation in part for smart order routing—looking out at various marketplaces to find the best prices and then routing trades to the best destinations—and in part for automated hedging.

The FX Aggregation solution sorts the best prices from multiple venues and trades across all of them with a single click. It aggregates a mixture of FX trading destinations such as Reuters Trading for Foreign Exchange service or ICAP's Electronic Brokering Service (EBS), along with a bank's own client-facing FX trading platforms and internal deals.

## WHY PROGRESS?

The London-based IT developers were comfortable developing solutions in the Apama environment, and were pleased that whatever Apama solutions they chose. They could customize them and plug in any functionality they needed. Using the Apama Complex Event Processing (CEP) engine and Capital Markets Foundation (CMF), a library of capital markets

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components, an internalization solution was not difficult to design. Also, the Apama Integration Adapter Framework, part of the Apama product tool kit, made quick work of connecting the engine with existing internal and external systems. Quick time-to-market meant that the bank began saving money on transaction fees as soon as possible.

Using Progress Apama, the bank:

- > Achieved low-latency, automated handling and matching of incoming and internal orders
- > Automated dynamic risk checking of internalized order flow
- > Supported automated internal risk management with automated hedging
- > Leveraged low-latency smart order routing strategies to include internal matching

## THE PROGRESS APAMA INTERNALIZATION SOLUTION

The internalization solution is comprised of the Progress Apama CEP engine and the Capital Markets Foundation of the Progress Apama FX e-Commerce solution. The Progress Apama Integration Adapter Framework simplifies connection with internal and external trading systems.

The Capital Markets Foundation (CMF) contains the following components and services to support an internal liquidity pool:

- > **CMF Exchange Engine.** The exchange engine provides the public interface to a matching engine implementation for use in market simulators, dark pools, internal crossing engines, etc.
- > **CMF Order Book.** Provides a complete implementation of a market order book with the ability to submit, amend, cancel and query orders. The order book also includes a DataView component for publishing the contents of the book to a GUI screen.
- > **CMF Order Management Utilities.** The components and services in the utilities bundle are concerned with managing and monitoring orders created by CMF-based applications.

- > **Market Data Publisher.** This is an interface for publishing events representing market depth and trades to interested subscribers.
- > **Risk Firewall.** The firewall intercepts all orders submitted by a CMF-based application and checks them against a set of configurable rules. Orders that pass all the rules will be allowed to proceed and be submitted to the market; if any rule fails, the order will be rejected.

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## PROGRESS SOFTWARE

Progress Software Corporation (NASDAQ: PRGS) is a global software company that enables enterprises to be operationally responsive to changing conditions and customer interactions as they occur. Our goal is to enable our customers to capitalize on new opportunities, drive greater efficiencies, and reduce risk. Progress offers a comprehensive portfolio of best-in-class infrastructure software spanning event-driven visibility and real-time response, open integration, data access and integration, and application development and management—all supporting on-premises and SaaS/cloud deployments. Progress maximizes the benefits of operational responsiveness while minimizing IT complexity and total cost of ownership.

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