Trading floors can be frenetic and boisterous environments, complete with a constant stream of audio alarms, news announcements, and traders shouting to each other in code to accept or reject orders. There are grids of screens stacked 4x4, displaying instruments ticking up or down, charting price movements, displaying positions, showing profit and loss. Everyone is acutely focused on the task at hand. The IT team often sits in this area, charged with supporting and developing trading systems. The last thing they want to hear above all of this cacophony is a trader screaming “Why have I just been hit in CABLE! Where are my PRICES!” (CABLE=Great Britain Pound [GBP]/United States Dollar [USD].)

Providing a robust system capable of delivering reliable at-market pricing is fundamental to the success of traders, and ultimately those who deliver their trading applications.

AN FX ACCELERATOR FOR POWERFUL SCALABILITY
TIBCO StreamBase® and TIBCO® Live Datamart provide a platform for foreign exchange (FX) pricing and dealing systems that delivers the necessary service in volatile markets. TIBCO recently announced its accelerator program, within which we offer the FX Dealing Accelerator (FXDA). The FXDA, available in TIBCO StreamBase 7.6, includes key components for quick-start projects: market data and execution adapters/handlers, components for aggregating prices, sample spread calculation modules, and TIBCO Live Datamart tables. A sample HTML5 trading application is also provided, which is intended to be extended in each specific implementation.
The first stage in building an FX trading system is to consume market data from liquidity providers (LPs). The FX Dealing Accelerator uses StreamBase Trading Components with access to market data and execution services from 25 LPs. There is no centralized exchange in FX dealing, so to know the market price at any point in time, data from multiple LPs is consumed to calculate an “at market” price.

FX dealing firms use these prices to calculate buys, as well as to decide whether to accept or reject a trade. Clearly, knowing “at market” is essential. Any delay in price data directly affects profit and loss. From these multiple price sources, an aggregated book or view of the market can be built.

The market price can then be propagated through spread calculation modules. In the Accelerator (FXDA), TIBCO Live Datamart is used as both an in-memory cache for prices and trades, as well as the bridge from the JavaScript API to the dealing UI. These prices and trades are also available for ad-hoc query and analysis via the TIBCO LiveView™ Web or Desktop client.

**DYNAMIC REACTION IN VOLATILE MARKET CONDITIONS**

The FX Dealing Accelerator manages the full cycle from market data ingest, through customized pricing, to trade management. The published prices, trade requests, and execution reports are stored in TIBCO Live Datamart. The TIBCO data mart provides the unique ability to monitor performance of the platform in real time and to adjust any spread parameters in real time, as well. TIBCO Live Datamart surveys and monitors both the prices and the trades in a feedback loop. Alerts can be set up based on real-time profit and loss calculation and appropriate action taken. In a volatile market, spreads can be altered when making a profit to increase revenue opportunity.
The latency performance of LPs can also be monitored. If you find during events such as Non-Farm Payroll reporting, that a particular LP is providing stale prices, they can be dynamically disabled from the aggregated view. Alerts can be created in the data mart, either through a web UI or LiveView Desktop. Responding to these alerts can be either automated or manual.

To respond automatically, the alert can be configured to send new spread parameters to the pricing engine, thus dynamically altering FX prices offered, based on the prevalent market conditions. This built-in monitoring of the FX dealing platform greatly bolsters the resilience of the system and enhances risk management.

The TIBCO StreamBase platform is a graphical development tool that greatly reduces the development lifecycle. Leveraging this platform in the FX Dealing Accelerator further shortens the time to results for TIBCO customers. This white box approach to developing an FX dealing system offers the ability to rapidly adapt to volatile market conditions. Such inherent agility creates a platform where new business ideas, updated execution algorithms, or configuration, can be deployed to production during the trading session if needed.

The combination of the FX Dealing Accelerator for price and trade processing and TIBCO Live Datamart for 360-degree system monitoring provide IT teams with a system they can trust, and one traders can generate revenue from. Getting back to the team on the trading floor, they will still be surrounded by frenetic activity, bells, and cries, but calls like “I’ve just made 10 large on CABLE!” will occur more often.