



Case Study: Mitsubishi UFJ Securities International Plc

A major Japanese securities and investment house deploys Contex MCS and RealtimeXL to publish house instrument prices in real time to traders in both London and Tokyo.

lower latency solution with much lower bandwidth requirements. This became the preferred solution.

The Challenge

As part of a major investment in its trading systems, London-based Mitsubishi UFJ Securities International plc (MUSI) required an effective method of publishing house prices in real-time to each of its traders and salespeople.

Building The System

The most effective way of distributing prices from a spreadsheet based system is to share only the information necessary to repeat the calculation.

Pricing spreadsheets were constructed with a data entry area and a custom Microsoft Visual Basic application that read the entry area and identified the price and the pricing method. Only this data, input by the trader who is responsible for the house pricing of that particular instrument, is broadcast.

Alternative Solutions

Two alternative solutions were considered:

- **A central pricing system**
However MUSI's Rates Trading Group (RTG), which had taken on the project, considered that the volume of data would quickly exceed the available bandwidth, and that performance would be an issue.
- **A real-time, multi-user distributed spreadsheet based system**
RTG believed that by choosing a suitable realtime spreadsheet add-in, and by designing the publication mechanism to broadcast only the parameters needed to recreate the calculations, rather than broadcasting all the house price data, this would deliver a much

All desktops use feeds from Reuters and Bloomberg to re-create the original calculations. If a trader who is not the owner of the instrument changes its price then it's clearly marked as not being the house price – this allows traders to perform "what-if" modelling in their own sheets.

This architecture minimizes the volume of changed data, so speed can be maintained and network traffic minimized, achieving the minimum latency possible in a spreadsheet environment. RTG built a "proof of concept" model using a page at an external market data vendor. Updates were contributed to that page and each trader subscribed to it.

This proved the mechanism was viable, but it had drawbacks: it was slow, with substantial latency involved in both contribution and subscription. The mechanism was also dependent on the capabilities of the external page. And a team member had to be available each morning to reload the server and the master spreadsheet to ensure that any instruments added in Japan overnight were included in the traders sheets before trading commenced. MUSI needed something internal that was faster, more flexible and scaleable.

Implementing RealtimeXL and Contex MCS

Subscribing to both Reuters and Bloomberg data and using the associated real-time Excel add-ins from each vendor was a risk, since the two add-ins can conflict with one another. RealtimeXL was chosen because it was designed to handle multiple data feeds. It also turned out to be "orders of magnitude" faster.

RealtimeXL delivered one further advantage: its ability to communicate with Contex MCS, which is normally used for contribution of market data to external vendors. RTG realized that it could provide the price broadcast mechanism, with all spreadsheet users subscribing to it directly.

Using Contex MCS also allows MUSI to manage external contribution of instrument prices to multiple data vendors, while allowing dynamic feeds and the addition of new instruments during the trading day without taking the system down.

"We now have a low-latency solution that gives the traders full market information"

Jason Ross
Director, Rates Trading Group

Project Management

The project was managed by MUSI RTG in London, with weekly project meetings involving Gissing technical staff and management. MUSI decided that implementing a similar system in Japan would deliver substantial benefits globally. Traders in Tokyo were upgraded to Office 2003 and RealtimeXL was tested on the Japanese version of Windows.

The Gissing implementation team visited Tokyo to install and configure their system in January 2007. The system is now live and configured so that the Contex systems in London and Tokyo are connected in real-time. The system is used by all members of the Rates Trading Group and Fixed Income Sales Team in London and the sales and trading teams in Japan. A project is

underway to roll it out to 130 Japanese users across multiple products.

Benefits

When the project began MUSI had no system for house price publishing in bonds, swaps or futures. The project implemented, from scratch, a real-time spreadsheet-based internal price distribution system linking traders and sales people in London and Tokyo with minimal latency and maximum performance, using available connectivity with lowest possible bandwidth usage.

Some markets, particularly in Japanese Government Bonds (JGB) in which Mitsubishi UFJ Securities (MUS) is the largest market maker trading around 250 different instruments, are not fully covered outside Japan – essential information such as two way prices aren't available on broker screens, so trading these instruments outside Japan has historically been done in a vacuum. With the new system in-house traders fill their own prices, so they have a complete market.

Trading, and pricing of instruments, can be done round the clock. Ownership of an instrument is contended, via Contex. When the owner of an instrument in Tokyo goes home at the end of their working day, they relinquish control and a designated trader in London can take over pricing the instrument and trading can continue.



Greg Bufton & Jason Ross, MUSI

Future Plans

In addition to the expansion to 130 users in Tokyo, there are immediate plans to extend the system to other product areas including exotics and equities. MUSI is planning to extend this to become a truly global pricing infrastructure encompassing Hong Kong, New York, Zurich and other sites.

Mitsubishi UFJ Securities International plc (MUSI) is the European hub of the global securities and investment banking business of Mitsubishi UFJ Securities and is part of the Mitsubishi UFJ Financial Group, one of the world's largest financial institutions.

Founded as Gissing Consulting in 1991, Gissing is now the leading supplier of multi-vendor contribution systems to financial institutions worldwide. We have more than 30 major investment banks and brokers as clients and offices in London, New York and Hong Kong. Gissing was acquired by Reuters in January 2008 and now operates as a division of Thomson Reuters.