



FIX as a fast-track integration technology solution for merger projects - case study: Nihon Unicom Corporation, Tokyo, Japan

FIXの技術を活用し迅速に合併によるITの統合を実現
— 日本ユニコム株式会社（東京）に於けるケーススタディ



By Daniel Burgin, CEO, MetaBit

Japan's financial industry has undergone rapid change since the 'big-bang' in 1997 when market deregulation forced domestic securities firms to realign businesses and restructure organisations. Mass retrenchments for lean outcomes as well as mergers and acquisitions were suddenly commonplace.

Traditional Japanese household names within the financial sector including Sanwa Bank, Sakura Bank and Fuji Bank disappeared as a result of mergers to form new large financial organisations resulting in UFJ Group, SMBC Group and Mizuho Financial Group. Interestingly, the very traditional Japanese names once used for organisations, for example 'Sakura' (Cherry Blossom) and 'Fuji' (relating to Japan's highest and sacred mountain) were dispensed with for more modern branding, sending out a clear message to the global financial community that Japan had parted ways with business practices based on tradition. The Japanese financial landscape had now changed with a lasting effect to produce some of the world's largest financial groups. Today, this evolutionary process continues.

Newly formed mega-banks resulting from Japan's deregulation process commenced merger activities to join the global league. Some financial holding companies consolidated several of their subsidiaries to streamline their business and strengthen their position with a diversified range of services for clients.

Until recently, FIX did not have a strong foothold in Japan, largely because the it was not well recognised by domestic buy-side institutions.

Outside Japan, one would usually associate similar restructuring processes within large securities firms to also include utilisation of the FIX protocol. However, the general consensus is that Japan falls behind its counterparts in Europe and the US for FIX implementation. Until recently, FIX did not have a strong foothold in Japan, largely because

it was not well recognised by domestic buy-side institutions. Major reasons include regulatory issues, tight IT budgets during the economic down-cycle of the last few years, and traditional trading methods. In Japan, the FIX protocol was originally embraced for equities products, and its support for other product lines has not yet been explored. That said, the strategic value of the FIX protocol for products other than equities has been recognised by the Nihon Unicom Corporation - one of Japan's leading commodity brokers that trades all commodity futures listed in Japan which include crude oil, precious metals and rubber.

Considered a less high profile segment of Japan's financial industry, commodity broker Nihon Unicom is leading Japan's financial industry with FIX implementation for trading listed derivatives. This implementation is the first known adoption of FIX version 4.3 by a Japanese securities firm.

Background on Nihon Unicom Corporation

Established in 1958, Nihon Unicom Corporation is one of Japan's key players in the commodity futures market. This market has traditionally been active for imported raw materials. Nihon Unicom offers services of execution and clearing for all commodity futures exchanges in Japan i.e. on Tokyo's Commodity Exchange (TOCOM) and Tokyo's Grain Exchange (TGE). Included are futures in precious metals, crude oil, rubber and soybeans. Whilst Nihon Unicom's business is mainly in commodity futures trading, it has also expanded into related areas such as margined foreign exchange trading.

In response to the increasingly competitive market environment, Nihon Unicom has decided to consolidate two subsidiary companies, Access Securities and Century Securities to strengthen their position in Japan's financial market. The merger transpired 20 July 2004 and the new,

combined securities company, operating under the name Century Securities, now provides a diversified range of financial services that also include listed futures and options, equities and equity margins.

The trading system mandate

トレーディング・システムの任務

System consolidation is one of the biggest burdens following any merger or acquisition.

Access Securities and Century Securities were utilising two very different trading platforms provided by two different system vendors, namely Trade Works Co. Ltd. and another third-party vendor software. Moreover, both securities companies had internet trading systems hooked up to their respective OMS to service retail and corporate customers.

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The holding company, Nihon Unicom, mandated the project team to integrate the two different infrastructures within the time frame of three months. Furthermore, it was of paramount importance to maintain uninterrupted high quality day-to-day trading activities for retail and corporate clients despite merger activities. It was planned that all futures transactions for Nikkei225 from what was formerly Century Securities' client base should be traded through the OMS of Trade Works "Trade Agent" into OSE.

This set-up would consolidate order flow from the two pre-merger subsidiaries' clients, as well as reduce execution costs incurred with the agency broker utilised by what was formerly Century Securities.

It was a critical success factor for Nihon Unicom to execute the merging of its subsidiaries within a very short time-to-market, given the very competitive environment in Japan's financial industry.

FIX – as a rapid integration technology solution for merger projects

FIXの技術を活用した、合併後のIT統合ソリューション

The internal project team and Nihon Unicom's preferred software integrator, Trade Works, faced the challenge for integrating two independent trading platforms in a merger environment within an elapsed time frame of three months.

During a tense period of analysing the existing technical platforms and technologies, various scenarios were considered. However, any traditional solution, i.e. system integration, replacement or interfacing solution could not be realised within the given time frame.

Eventually, the project team concluded that the best chance of success to realise the project on time was to adopt FIX technology, which would solve their internal integration issues. FIX would be the answer to a rapid integration technology solution for their merger project.

Interesting to note is that FIX – typically utilised for communicating securities transactional messages between participants of the financial industry and the exchanges – would in this case, be utilised as a high-speed link for transaction flow between two internal trading platforms.

Trade Works was ordered by Nihon Unicom to seek a third party FIX engine that would satisfy the following requirements:

- guaranteed implementation within the given time constraints,
- persistence & resilience,
- support of derivatives instruments,
- high performance,
- support of FIX Version 4.3 - due to enhanced derivatives support,
- rapid deployment capabilities, and
- Japanese local FIX consulting and support services.

Trade Works evaluated three FIX engines for Nihon Unicom, and obtained approval to utilise the CameronFIX engine in combination with MetaBit as its Japanese support partner.

Nihon Unicom selected MetaBit, recognising its FIX expertise and experience as well as its depth of understanding

of the Japanese financial industry, to assist Trade Works with the design and architecture of the FIX connectivity solution for the rapid deployment of the FIX engine.

Key decisive factors for Nihon Unicom’s choice of FIX engine were Cameron’s track record with derivatives trading, support of various FIX versions, its platform independence (Nihon Unicom wished to utilise Windows 2003), cost, the robust architecture and its track record at more than 400 global sites including growing client base in the Japanese market.

Trade Works realised that the selected product offered suitable Technology Adaptors that were already available to interface to MSMQ for connection to Trade Agent. The MSMQ Technology Adaptor further helped save development time for Trade Works with the integration project.

Using FIX to route listed Japanese derivatives remains uncommon

今日、日本でデリバティブ取引にFIXを利用するのは一般的ではない

Japanese securities firms remain uneasy about trading or routing listed derivatives through FIX with exception to the Western financial markets. One of the key reasons for this is distrust of a FIX engine’s capability to support futures & options. Furthermore, most of Japan’s participants utilise FIX4.1 or 4.1J, but not 4.3, which contains enhanced support for derivatives trading. MetaBit often faces incorrect perceptions amongst Japanese customers that problems can arise when a FIX engine communicates with different versions of FIX.

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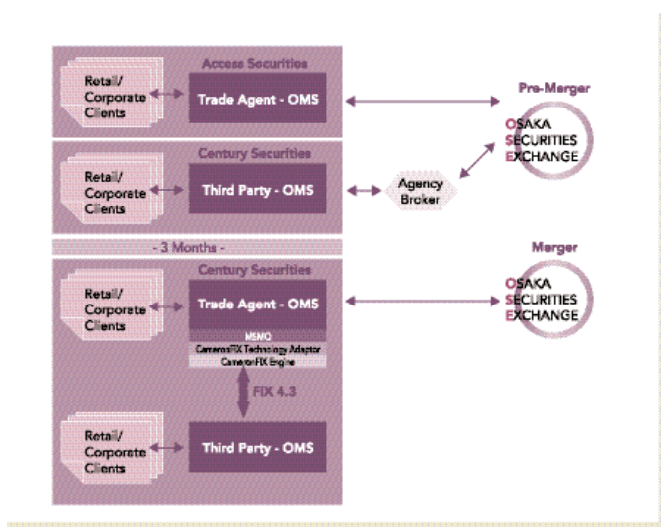
To date, FIX 4.3, which includes several enhanced features to support derivatives trading, has been avoided by the Japanese financial industry. This is almost exclusively for reasons of compatibility with the widely used FIX4.1.

Nihon Unicom’s decision to go with FIX version 4.3 has placed them in a strategic leadership position for routing

listed futures and options via FIX. That the CameronFIX Universal Server already supports listed derivatives, regardless of the FIX version, provided an additional level of comfort when backing their decision.

The implementation – schematic diagram pre-/post-merger

実装方法概念図 – 合併前/合併後の構成



The diagram above represents a high-level schematic of the pre- and post-merger systems. The post merger diagram describes how FIX was deployed in realising fast track integration of the two different OMS and to provide seamless service as a new Century Securities.

The technical solution is as follows:

Nihon Unicom chose CameronFIX V6.1 with its Monitoring, Scheduling and Message Validator options.

- Microsoft Message MQ (MSMQ) was selected by Trade Works to connect the FIX engine, through its relevant Technology Adaptor, to the Trade Agent OMS.
- FIX4.3 sessions between the FIX engine and a third-party OMS.
- Operating System: Windows 2003 on a standard Windows Server.

The decision to utilise FIX as a rapid integration technology solution for this merger project proved successful. Despite the differing technological environments of two independent securities firms and the tight time frame, it took the project team only four hours to establish

the FIX 4.3 session between the FIX engine and a third-party OMS. Passing of orders and executions was successfully proven the following day.

The rapid integration between the FIX engine and one of the trading systems allowed the project team to focus on delivering the more complex connectivity between the FIX engine and Trade Agent through MSMQ. This helped successfully conclude the project within the mandated time period of three months, starting with the evaluation of FIX engines to implementation, testing and production.

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Nihon Unicom achieved its integration in a very short period of time and at minimal cost. This was achieved without any compromise to its daily trading activities and services to the client base of what used to be two subsidiaries. However, due to the client's decision to implement FIX in the form of a rapid integration deployment strategy, Nihon Unicom has introduced a technology that has become an integral part of the new organisation's IT strategy.

The FIX protocol supports the trading of a diversity of products including other strategic business areas for Nihon Unicom (e.g., FX). This strongly backs Nihon Unicom's decision to lead the utilisation of FIX4.3 in Japan for listed derivatives.

The strategic value of the FIX protocol and FIX engines

to become the single communication protocol for a securities firm's entire product offering – from equities, futures & options, fixed income, commodities, and FX trading – is not yet recognised fully in Japan.

In the near future, other Japanese industry players will realise FIX is not a protocol exclusive to equities. Such players will follow in Nihon Unicom's footsteps and become the pioneers in unifying communication protocols in the entire Japanese financial industry. **FIX**