

# Trayport Exchange Systems strengthening JOX, the oil products exchange for Japan



Trayport

## Background

J-Oil Exchange Pte Ltd (JOX<sup>1</sup>) was established in 2001 as a market place in which traders could buy and sell physical spot (“dated”) and forward oil products and paper swaps. Based out of Singapore, it was set up as a new venture with approximately 40 trading companies, and around 80 traders. JOX offers different tiers of membership in terms of participation, and there are currently 29 active trading members covering almost of all the main players in Japan, plus some with read-only trader access to prices on the exchange.

The product portfolio includes gasoline, kerosene, distillates and fuel oil. Physical product can be traded on a fixed or floating price basis. Paper swap contracts are settled against RIMIntelligence Co market indices. Trading participants include Japanese trading houses, Japanese oil companies, subsidiaries of banks, securities dealers and oil majors.

JOX is unusual in that it consists of, and is run by, oil companies and Japanese trading houses working together. Showa Shell Sekiyu KK currently holds the Chief Operating Officer position for JOX, while CTC (Challenging Tomorrow's Changes), part of Itochu Group, acts as a contractor for site management and administration. As a result, JOX has no full time employees; all work within the oil industry.

## Situation

A decision was made in 2001 that JOX would be the first exchange to offer electronically traded oil forward contracts to the Japanese domestic market. Also, JOX made the decision that it wanted to always own its own technology and be able to develop it as it expanded. So developing an electronic trading platform that was adaptable was a necessity. JOX therefore invested Yen 335mn (\$3.5mn) into developing its own hardware and software to establish the exchange in 2001.

This venture saw trading volumes initially increase to around 600,000 kilolitres per month in 2003 and 2004. However, oil markets faced a downturn in 2006 and 2007. Economic conditions meant trading volumes declined and it became evident that the cost of maintaining and developing the electronic trading system JOX was using at this time was becoming too high.

Up to 2007, JOX conducted trading through a web-based system with limited functionality and integration capabilities. The exchange recognised that to achieve its goal of market growth - particularly within the commodities and futures trading community - would require investment in specialist technology. In 2007 a decision was made to switch to a third party software platform to reduce costs.

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Kazunori Yamamoto, Chief Operating Officer of JOX and Corporate Executive Officer of Showa Shell Sekiyu KK

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## Solution

Kazunori Yamamoto, Chief Operating Officer of JOX and Corporate Executive Officer of Showa Shell Sekiyu KK, explained "We were approached by Trayport in 2007 and evaluated its exchange trading platform. We felt that the Trayport platform was extremely adaptable and decided to replace our system with Trayport's. The cost of implementing and maintaining Trayport's Exchange Trading System was also 50% less than that of our existing platform."

JOX began deployment of Trayport's Exchange Trading System in February 2008, enabling existing and new members to integrate with the exchange. The implementation maintained JOX's existing bilateral settlement mechanism, but also provided the ability to support cleared products across multiple asset classes on a single server application.

"Our previous trading system was not very user friendly for our traders, and was very slow" said Mr. Yamamoto. "In marked contrast, the Trayport Exchange Trading System is extremely user friendly and we found that Trayport has always been very responsive to our needs and helped in every aspect to ensure that the transition to the new trading system was faultless. Every one of our members is now more than happy to use the Trayport Exchange Trading System and finds the platform highly responsive and easy to use."

Jeremy Harris, VP for Asia Pacific at Trayport, said "We looked carefully at how we could support JOX and not just replace its existing trading platform but also produce a fully integrated front and back office system to allow the exchange to develop as it needs. Key features of the Trayport Exchange Trading System include its multi-asset class capabilities, the ability to support cleared and over-the-counter (OTC) markets, integration capabilities for straight through processing, flexibility and scalability, providing JOX with the capacity to expand membership numbers and to increase the range of products and delivery points."

"The Trayport model appealed to us because the regular upgrades they make mean our customers always have access to the latest technology and functionality" said Mr. Yamamoto. "We are always seeking to build our membership base and increase the number of supported instruments. Trayport's Exchange Trading System provides us with the technical capacity and integration capability to achieve these objectives. Trayport Exchange Systems' experience in supporting energy and commodities across regulated and cleared exchanges is also attractive to JOX as this gives us further options to grow our business."

## Benefits

Since adopting the Trayport system in 2008, JOX has seen trading volumes increase. The exchange saw a revenue loss in 2008, but this was due to costs still being incurred from its old trading platform.

"We saw losses of Yen 50mn (\$0.5 mn) in 2008, but simply by switching to Trayport we have realised gains of Yen 50mn (\$0.5 mn) in 2009. Trayport's Exchange Trading System therefore represents a \$1mn difference in potential revenue gains from our old system, which is a substantial benefit," said Mr. Yamamoto.

## Contracts Traded

Mr. Yamamoto continued "We believe our model for offering domestic oil contracts electronically has been proven successful one. JOX is the only forward contracts oil exchange using electronic trading and it is the only successful IT led business in Japan. Trayport's help in achieving this has therefore been crucial."

When the system first launched, JOX traded six oil products each with four different delivery regions and with three contract types. Contracts are traded up to seven months into the future (starting at the current month). This meant there were 50 contracts being traded at any given time.

### Head Office

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Oil products available include gasoline, kerosene, gasoil, low sulphur additive oil, "A" class and high sulphur "C" fuel oil. These have delivery destinations of Chukyo, Ohnishi, Hanshine and East Japan.

At present on JOX, both Japan Oil Forwards (JOF) Fixed Contracts, where a fixed price is paid for oil with guaranteed delivery, and JOF Floating Contracts, where the price is based on the average current month price of a product, are traded. JOX also offers its members Swap Contracts based on the price differentials in any contract month and no oil is physically delivered under the swap. Trayport's Exchange Trading System has shown its capability across a wide range of assets and delivery mechanisms.

### Added Functionality

In 2009, Trayport helped JOX by adding Japanese language displays to its exchange system and also added workbooks with contracts for Rack Fix, Float and Swap. This extended the number of contracts being traded to 609.

Trayport was able to complete the addition of these contracts in 7 working days to take the new Rack Fix and Float contracts (70 in total) from concept through implementation and testing to deployment. This work was completed by Trayport's team based in its Hong Kong regional office.

For 2010, JOX wants to add more capability and in doing so increase membership above its 29 main members. These 29 members are the largest corporate trading companies in Japan. To increase membership further will mean JOX targeting small to medium size trading companies and wholesalers.

These companies will need risk management and clearing solutions so JOX is starting to initiate links to clearing houses. JOX expects to see the first cleared transactions

on its exchange from the third quarter 2010. Trayport is assisting by helping JOX by building links to clearing systems and also by developing a system to offer bilateral position keeping, a necessity for those hedging physical oil forwards on JOX.

Mr. Harris concluded "The introduction of clearing links for JOX is an exciting opportunity that will complement and strengthen JOX's existing position as a significant player in the oil industry. We are proud to partner and assist JOX. Trayport's Exchange Trading System has allowed JOX to continually adapt to meet the needs of its customers and markets in the largest domestic oil market in Asia. We look forward to continuing to work closely with JOX over coming years."

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1. For information on JOX see [www.j-oilexchange.com](http://www.j-oilexchange.com) and for Trayport see [www.trayport.com](http://www.trayport.com)