



## WHITE PAPER SERIES

### *Smart Order Routing*

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## Smart Order Routing



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As sell-side firms grapple with the post-MiFID environment of multiple execution venues and dispersed liquidity, smart order routing is a necessity.

Ulf Lillieroth, product manager, SunGard Front Arena, explains why combining a smart order routing capability with an order management system can cut costs, increase sales and improve efficiency.

**Following the MiFID regulation Europe's equity markets are currently undergoing major changes. The "natural order" where there is one dominant exchange for every domestic market has been disturbed by a wave of new alternative execution venues.**

In turn the traditional exchanges have embarked on a surge of defensive consolidation, creating transatlantic powerhouses such as NYSE Euronext Liffe. This however does not contradict the over-riding trend – that liquidity has been markedly dispersed in many markets.

This change has not come out of the blue. Deregulation in the US market has seen a range of new execution venues emerge. Many of which have enjoyed a healthy share of flow previously directed toward the dominant exchanges like NYSE by virtue of cheaper transaction costs and improved technology.

When the Markets in Financial Instruments directive (MiFID) was introduced in November 2007, it was expected that Europe would experience a similar market transformation. MiFID allowed for new execution venues or multilateral trading facilities (MTFs) to challenge the old guard's monopoly.

The first venue to emerge was the Instinet-owned Chi-X, which was launched in early 2007. In its first 18 months Chi-X has proved to be successful, taking as much as 15% of the order flow from the likes of the London Stock Exchange (LSE). This success has been reassuring for the other MTFs that have since

followed - Nasdaq OMX Europe (Neuro), Bats, NYSE Acra Europe, Burgundy, Equiduct and Turquoise – showing that it is possible for newcomers to gain penetration and market share.

Of course, 2009 will be a challenging year for the securities market and particularly for any new initiatives looking to gain liquidity. At times of such intense market volatility, firms are mostly concerned with liquidity rather than reduced transactional costs or additional services. Consequently there is likely to be a concentration of order flow on the traditional exchanges which will place pressure on the newcomers, not all of which will survive.

However, the current market situation will not be enough to derail the rise of the MTFs nor should firms see it as a reason to ignore the alternative venues and the work they need to do in order to trade successfully in Europe's new securities landscape. The tighter margins facing participants, especially on the sell side, will eventually work in favour of the new MTFs. The current downturn and consequent slowdown of the market changes as well as a tightening of IT budgets will probably give firms some more time to plan and prepare properly.

The Nordic market has been through this experience before, where a challenging economic environment and tightening budgets are directly connected with a changing market structure that required some investment in new technology.

Back in the early-1990s many Nordic banks were facing an economic downturn, however they were still able to attain the necessary funds to invest in automation projects that produced long-term efficiency savings and vast improvements in workflow through the elimination of costly manual processes.

Such is the budgetary pressure gripping the current markets that these long-term investments have been replaced by the demand for exclusively short-term savings. However, when this pressure has subsided somewhat, the interest in more longer-lasting IT projects will return.

### **Liquidity discovery**

The search for liquidity is the dominant theme in terms of new technology. There are also a number of MTFs launching dark pools or market places with partial dark liquidity, creating yet another way of trading and a further requirement for more sophisticated technology.

Newly developed smart order routers will now have to cater for the discovery and posting of liquidity in these dark pools which are becoming increasingly useful for trading firms, particularly those trading large institutional orders.

In the traditional trading environment, where large orders would need to be traded on a single exchange, firms were able to only show just a portion of their liquidity so as to prevent market impact. Now, firms can post liquidity on several different dark pools and increase the likelihood of execution without too much market impact. Consequently, the more MTFs emerge, the more important the dark pools will become as a complement to iceberg orders.

Critically, the success of the dark pools will depend on the adoption of smart order routing technology among trading firms. Smart order routers have existed for some time, however it is only in the last year that clear distinctions have been apparent in the degree of sophistication available.

The most basic smart order routers simply sweep the market looking for the best available prices but customers' requirements are moving beyond this basic functionality. The more advanced routers exhibit some algorithmic functionality that enables the router to both search for liquidity in several markets and also place orders based on specified trigger prices and factors.

This combination of smart order routing and more sophisticated algorithmic trading tools will be required as firms exploit the new market conditions. The simple rule is that you should be able to operate on multiple markets in the same way that you do on one market - with the feeling that it is one market you are working with.

### **New market venue considerations**

There is still uncertainty about which venues will prove to have any kind of longevity. The only certainty is that there will be more than one market to connect to for every instrument as MTFs embark on an intense marketing campaign. Already we are seeing new venues being aggressive on their pricing, claiming the greatest liquidity and promising very low latency.

All of these different factors will prove enticing to traders over the next 12 months as the MTFs attempt to build market share, going so far as to offer cash incentives to firms that post liquidity on their venues.

This short-term price war will eventually subside as some kind of pattern is established but the long-term effect will be a vast reduction in the cost of execution, in keeping with MiFID's principal aim of creating a more democratic and competitive securities market for investors.

For sell-side firms, however, MiFID and its best execution requirements will create some extra cost, at least initially, in terms of processing and connectivity. As liquidity becomes dispersed there will be no other way for these institutions to attract buy-side order flow without the ability to connect to these multiple venues.

There are ways to access multiple sources of liquidity and keep costs down by going through brokers that offer best execution through a direct market access offering, something that may appeal to smaller sell-side firms with a restricted technology budget. But for those firms dealing with larger orders, such an approach would carry a processing risk and the potential for delays and less operational control than they would experience with their own smart order routing system.

### **Consolidated systems**

For the larger firms dealing with institutional orders, there is a need for liquidity discovery and aggregation, connectivity, workflow and smart order routing to all be provided through one consolidated system.

With the growing number of execution venues, a number of vendors are offering smart order routing. Many vendors are claiming to be able to solve the order processing and routing problem but mostly they are merely solving some parts of the process – be that the smart order routing or the order and trade processing.

The only way to gain full control is to have the smart order routing connected to the order management system. Of course this can be done by using middleware to integrate a smart order router and an order management system from two different vendors but by installing a system that has this functionality built-in there are sizeable benefits.

Not only will firms be saved the integration work but they will have much better control. The smart order routing functionality can be combined with the order flow, providing much better granularity into how the order

flow is designed. Links can then be made with a firm's own proprietary trading activity, creating the possibility of internalisation.

It is about looking at the whole lifecycle, from pre-trade to allocation, rather than dealing with processes in isolation and relying on multiple systems.

The pre-trade process has become a far more important aspect in the competition to attract liquidity. As the number of venues expands it will become more difficult to gain a consolidated view of the market's trading activity and to get a true picture of liquidity. By providing clear and transparent information in terms of indications of interest and actual trading activity, this will not only serve to make the marketplace more efficient but can also be an effective marketing tool as a means of broadcasting the evidence of a firm's market activity.

Sell-side firms are also able to make more timely decisions regarding their execution strategy and whether to pursue internalisation. The incentive for internalisation used to be the size of the spreads but these spreads are decreasing. The main incentive is now liquidity. The ability to post orders on your own internal market and to offer improved prices in comparison to the rest of the market will be an increasingly effective way to attract buy-side customers.

Executing program orders involving large volumes also becomes a more manageable task when the smart order routers are combined with the order management systems. This link allows the smart order router to be more intelligent in its search for liquidity and in the algorithmic trading functionality used to help execute the order.

Program trading used to be a very labour-intensive process with several traders used for every program but now one trader can manage many different programs. The turnaround time from receiving a customer's order to the point of execution also becomes vastly reduced when the smart order router and order management system

are combined, allowing for multiple orders to be acted on simultaneously.

As credit conditions continue to contract and technology budgets tighten, firms will only

invest in solutions that can promise to reduce cost and also increase revenue. By using a trading platform that seamlessly combines smart order routing with order management, these twin virtues can be achieved.

## **About Front Arena**

Front Arena provides straight-through processing by integrating sales and distribution functions, trading capabilities, risk management, as well as settlement and accounting support. Market makers, brokers, risk managers and, institutional asset managers use Front Arena to trade equities, fixed-income, interest rate derivatives, and credit. Front Arena's components can be configured to meet a variety of trading needs and scaled to support operations ranging from local to global.

To find out more about Front Arena's solution for smart routing order visit [www.sungard.com/frontarena](http://www.sungard.com/frontarena) or call an expert +44 (0)208 081 2779

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SunGard provides software and processing solutions for financial services, higher education and the public sector. SunGard also provides disaster recovery services, managed IT services, information availability consulting services and business continuity management software.

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