



Trading Technology for the Sell-Side

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Naked Exposure: Getting the Full Picture

NEW YORK-While the industry waits for the U.S. Securities and Exchange Commission (SEC) to review all of the responses it received during the 60-day comment period on proposed changes to sponsored unfiltered, or "naked," access to exchanges, brokers are preparing for life without the offering.

"The SEC has identified a significant risk in the way naked sponsored access operates today, and its comment letter strongly suggests that naked sponsored access will likely be banned," says Dariush Nazem, vice-president, low latency product development, at Goldman Sachs execution and clearing.

Bank of America Merrill Lynch (BAML) sees it pretty much as Goldman Sachs does-that naked sponsored access is, for all intents and purposes, on borrowed time, at least in its present guise. "Given the pace with which it has done this and put this proposal together, and the fact that it comes on the back of a Nasdaq proposal that has already been approved, this is likely to happen," observes Tim Cox, director of global execution services at BAML.

John Goeller, managing director of global execution services at BAML, concurs with Cox's assessment, but goes a step further, suggesting a rationale for the speed with which the SEC addressed what has become a topical issue. "It has done quite a lot of due diligence around this rule prior to publishing it," Goeller says. "It has consulted a number of industry participants, groups and providers in this space, and it has made up its mind. If it appears to be rushed, it is only because it wants to get it out there."

Antonio Reyes Miras, global head of electronic trading products for prime services at JPMorgan responsible for running the broker's high-frequency trading business across futures, cash and foreign exchange, is undecided whether the proposals are likely to be adopted. More pressing, he says, is the need for the SEC to address the real challenge at hand: the potential for the introduction of systemic risk resulting from low-latency, high-frequency trading strategies. "It is difficult to tell until we know what the final proposal is going to look like, but unless we are careful, there is a risk that we will focus too much on the differentiation between a member and a non-member of an exchange without focusing on the drivers and concerns around naked access," Reyes says. "At the end of the day, what the industry is concerned about is systemic risk associated with this type of activity."

Brokers Carry the Can

Since its creation in 1934, the SEC-like all regulators-has periodically come in for its fair share of criticism for acting in what many perceive to be a heavy-handed manner, although this latest proposal is unlikely to polarize opinion, given the specter of potential losses resulting from a reluctance to act in the overall interests of the industry. "Typically the risks that you are looking at from a sponsoring perspective are not knowing your exposure before the next trade," says Goldman Sachs' Nazem. "In an environment where you are getting a drop from an exchange, there is always that window between an incoming order and what is already on the book. There has been lots of discussion around the amount of risk that you can build up in the span of 500 milliseconds or five seconds, and from our perspective, we have never felt comfortable not knowing the level of exposure before the next order gets to market."

Nazem has touched upon one of the necessary evils of the sponsored access model-the understanding that in the event that a sponsored client incurs significant losses that it isn't in a position to cover, the broker, whose market participant ID (MPID) is tagged to those trades/positions, becomes liable. It is a somewhat sobering notion knowing that through no direct fault of your own, your brokerage may be liable for covering significant losses, all of which may have arisen over a matter of seconds or minutes as latency continues to shrink while at the same time order volumes maintain their upward spiral supported by ever scalable order/execution management systems.

"In the naked sponsored access environment, all the details of the trade only appear after the trade has been executed-in other words, after the fact," says Nazem. "And so it is very difficult when it comes to naked sponsored access to monitor at the order level and carry out the necessary risk checks. If a strategy were to go the wrong way and start spitting out a bunch of orders, and if those orders get executed, the broker-dealer offering up its MPID is only going to know after the fact-after the trades have been executed and often that is too late to react. Now, there is risk on the book and often when the client isn't able to cover the losses, the risk comes back to the broker-dealer who has their own ID on the trade. At the end of the day, the broker-dealer is accountable for the trade."

Technology to the Rescue?

Technology plays a crucial, enabling role in the loss scenario described by Nazem. So it stands to reason that if technology is at the heart of the problem, then it might be at the heart of the solution too. Goldman Sachs, JPMorgan and Bank of America Merrill Lynch have deployed applications from FTEN, a New York-based provider of high-frequency trading and sponsored access technology, allowing them to monitor their clients' order flows on a real-time basis, and crucially intervene by automatically interrupting trading sessions if clients inadvertently breach any pre-determined trade barriers.

"We are in the position where we are able to manage our risk on a real-time basis, although this not only applies to FTEN but to all of our products," says BAML's Cox. "What we aim to do across all of our products-and this is what FTEN does very well-is be in the position where we can view any of our clients' exposure at any given time. It is not only about what they have executed but what they have sent to the market too, so that whenever a prospective order comes in we know what the incremental risk will be. We have already established the limits we are comfortable with, and if clients get near one of those limits they are made aware of it-they are also made aware of the fact they they are not allowed to breach those limits."

JPMorgan's Reyes advocates a similar approach to the one described by Cox, although he says he is also aware of the downside of micro-monitoring-monitoring every order on a pre-trade basis-which he feels undermines clients' efforts to execute large order numbers in as short a time as possible. The answer, he says, lies in the concept of "at-trade" risk management, the coining of which he attributes to FTEN. "You need to do the basic pre-trade [checks] but you still need to provide a mechanism for these firms-many of which provide liquidity by means of electronic marke-making-to continue performing in a very competitive market," Reyes says. "This means that you cannot do all your checks pre-trade because you will be slowing them down. The only thing you can do to continue mitigating that risk in an automated fashion is to introduce at-trade risk management, a concept developed by FTEN that is post-trade and real time, but with the ability to terminate a connection as soon as a limit is breached."

The Challenge

As often is the case in the financial services industry, simply throwing technology at a problem and hoping it will miraculously do the trick is as naive as it is effective. Understanding the full extent of the challenge, its implications for the organization from a business as well as a technology perspective, and identifying similar, associated challenges is clearly the way forward.

According to Ted Myerson, CEO of FTEN, in addition to clients showing an increased demand for aligning with the proposed SEC rule, which would mean implementing the appropriate technology allowing them to conduct pre-trade risk checks for sponsored access clients as well as all their agency order flow, they are also looking to generate aggregated views of clients' exposures across all execution venues. "They are looking for the ability to display an immediate view of the positional risks of each client across all types of exchanges," he says. "That is needed to properly monitor the total number of trades and offsetting hedges."

The scale of the data management and logistical challenge facing brokers in this space can easily be glossed over and trivialized as just another IT project, although Myerson's assessment stresses the acuteness of the task facing brokers in their quest for real-time trade monitoring, especially those firms with limited IT resources or which are hamstrung by outdated architecture or legacy systems. "This niche generates massive amounts of messages that need to be managed on a real-time basis, which can be extremely challenging to a broker's existing infrastructure," he says. "The real challenge is meeting the spectrum of needs simultaneously-this includes the speed requirements of the fund [client], the level of integration needed with the internal broker controls, and doing this while satisfying the regulatory obligations."

The demand for aggregated views of clients' exposure to which Myerson refers is high on JPMorgan's list of priorities, according to Reyes, who questions the efficacy of attempting to generate an accurate, meaningful picture of a client's total exposure unless it includes all the venues in which it is active. "Pre- and at-trade risk management at a particular execution venue doesn't really help us manage credit or counterparty risk," he explains. "For us to manage our exposure to a particular client or prop trading firm, we need an aggregated view of their activities across all venues; otherwise there's a risk that we might terminate a client because they breached a limit on, for example, Nasdaq, when they were offsetting those positions on either a different cash equities exchange or using futures indexes. So we could potentially erroneously terminate a client's connection because we think our exposure to that client is beyond our limits. What you really need is an aggregated, post-trade view of all its activities-that is the only way in which we can deal with clients' counterparty risk."

Victor Anderson