Insideview

Real-Time Surveillance

INTERVIEW WITH RICHARD TIBBETTS, STREAMBASE SYSTEMS AND WOLFGANG FABISCH, B-NEXT

In the aftermath of the financial crisis, U.S. and EU regulators are pushing for stronger legislation, how will this affect market participants?
Fabisch: Regulators would like to see much tighter controls in place around trading both pre- and post-trade amongst firms. This also applies across all asset classes unlike current regulation where there are exemptions, e.g., commodities. For some market participants, surveillance and monitoring will be a 'near real-time' requirement though for other participants, the regulators are looking for a 'proportionate' level of monitoring in an 'appropriate timeframe'. Many smaller brokers, banks and HFT firms interpret this as not needing to do near real-time surveillance.

What is the biggest challenge for building efficient surveillance systems in today's market?
Fabisch: Technology can cope with huge volumes of data, e.g. CEP (Complex Event Processing). Even more difficult is obtaining quality data from trading systems and assuring that the data collected is cleansed before surveillance is carried out. Secondly, the cost of data, especially real-time data is prohibitive for many firms. Typically, we see firms using delayed data (15 minutes) or performing analysis on a T+1 basis.

Tibbetts: The main challenge is to build a robust system that is scalable and flexible enough for further adjustments. With the speed of regulatory change, trading firms cannot afford to build a system only to throw it away when regulations change. They need flexibility and to be able to reuse the data and the architecture for more than just surveillance. The same information and analysis can drive pre- and post-trade risk management, trade support, execution consulting, and other opportunities.

What are the requirements for developing real-time surveillance systems?
Fabisch: Connecting this technology to trading systems and market data sources in real-time is key to performing real-time surveillance. Furthermore, only certain market abuse scenarios are appropriate for surveillance in real-time, e.g. spoofing. Others require pattern analysis over a longer period of time.

Tibbetts: It is not just about having real-time data analysis tools like CEP. In addition to the data, you need the expertise to understand the regulations to be able to react to changes. Tools that allow experts to quickly configure new

Wolfgang Fabisch
CEO b-next AG

rules, to collaborate with developers to build correct systems, are critical to getting the first system right and making future improvements.

What role does Complex Event Processing as a technology play in this context?
Fabisch: CEP is able to perform real-time analysis as well as process large volumes of data efficiently. So even if a participant is not looking to do true real-time analysis, there is still a use case for CEP as an analysis tool processing large volumes of data.

Tibbetts: This is an ideal technology for real-time surveillance, being fast, flexible and designed from the ground up for processing real-time events, such as trade order flow. We see CEP-based surveillance solutions as positively affecting the response time for compliance officers.

How does CEP technology help market partici-

Richard Tibbetts
CTO and co-founder Streambase Systems

pants to comply with the ESMA guidelines on systems and controls in an automated trading environment?
Tibbetts: Trading platforms (regulated exchanges or MTFs) and investment firms can leverage CEP to help meet ESMA guidelines. First, it is the scalability of CEP based systems that cannot only accommodate today's high data rates, but also spikes in data volumes caused by sudden surges in transaction flow. Secondly, CEP technology can provide a real-time view of trading infrastructures for firms to monitor and identify problems as soon as possible and immediately adjust, cancel or resolve issues associated with systems or algorithms. Thirdly, the graphical event-flow development environment enables staff from different business units to collaborate more efficiently during the implementation process.

Thank you for this interesting conversation.