

Filling the Gaps

Waters readers express an ever-present need for tighter risk management, better data management, and more. *By Phil Albinus*

Integration and data management remain a priority for today's investment firms, whether they hail from the buy side or the sell side. In a recent *Waters* survey, sponsored by financial services solutions provider Sybase, a good portion of the IT and operations budget will go to these mundane yet vexing tasks for today's financial services operations.

The survey respondents primarily consist of CIOs, CTOs and senior technologists from the sell side and the buy side. One-

and these issues are constantly battling each other. Problems stay the same and we move to respond at different speeds and then new problems crop up. There is a common view out there that in any part of an institution, there is a problem. They are aware of the fact that data volumes are exploding, for example. It is so much more pronounced these days that it is ubiquitous," says Eric Johnson, senior vice president and general manager for financial services for Sybase.

entire process has to be auditable by some entity within the organization and transparent to regulators. That means having a data flow that is transparent along the process at every point—from pricing the trade to risk analysis to gaining information by asset class and then managing the economic capital of the firm," he says.

MORE TRANSPARENCY

Would more transparency have stopped the current mortgage crisis? "It's hard to say what might have happened, because certainly the risk and exposures would have been far more transparent to the compliance officers inside the firm and the regulators," Baskan says. "There would have been much less room for hiding the sins under the blanket. It wouldn't have been as easy. We would still have had a smaller, more contained credit crisis but it wouldn't have built up to this extent."

Baskan notes that the mortgage meltdown's cycle of exposure expanded from one market to the global market and from large firms down to midsize hedge funds and pension funds. "It became the vogue in the market when everyone assumed that everything was okay. It would have been a hiccup of much smaller scope. I can't say no crisis would have happened but it wouldn't have been to the extent we are experiencing now," he says.

To illustrate this point, one survey question asked if firms have the ability to aggregate credit risk and profit-and-loss attribution intra-day. The majority, 66.7 percent, said no, with the remainder answering in the positive. In a follow-up question, 41.7 percent replied that this ability was "very important."

When asked if their data storage expenditures were growing, three-quarters of respondents said yes, and then 61.5 percent said it was growing at a rate of 20 percent to 50 percent year-on-year, and 15.4 percent responded that the data storage expenditure rate had grown by over 50 percent.

"For in-memory databases, you can only keep 30 days of data and if you want more sophisticated back-testing, you have to go elsewhere. I have asked people how much data they would like to analyze. One technical analyst at a major Wall Street firm said, 'I'd like to analyze data all the way back to the Civil War.'"

Eric Johnson, Sybase



third of respondents hail from processor or intermediary entities, as many larger investment firms offer these services. For the purposes of this survey, respondents were allowed to choose multiple answers so some result totals do not add up to 100 percent.

When asked, "What technology challenges will consume the most significant portion of your firm's resources over the next three years?" nearly two-thirds responded "back to front office integration," while a little less than 50 percent responded "insufficient or delayed data." "Regulatory burdens" also received 33.3 percent of responses, which proves that old problems stay fresh on the minds of financial technologists.

These responses do not surprise officials from Sybase. "Investment firms struggle to address the issues that plague them. It has always been a war of attrition

In response to the question, "What systems are at risk of lagging in terms of performance and functionality?" risk reporting took the lead with 65.6 percent of the vote. Even in this day and age when firms pay lip service to tight risk management controls, recent headlines show that ignoring the advice of risk management tools and their human advisors has run rampant. Look no further than the recent mortgage meltdown, the collapse and sale of Bear Stearns and the billions of dollars in losses caused by a single rogue trader inside Société Générale.

This begs the question: Are we at the point where we need better risk controls or do we need firms to follow the risk warnings? "I think there is an element that has to do with behavior and controlling behavior is not the same as risk control," says Sinan Baskan, director of financial market solutions for Sybase. "At some point, the

When asked whether they integrate real-time and historical data for analytical applications, 75 percent of respondents say they do. The users most likely to demand this integration hail from the quant desks, the credit risk offices and the trading desks.

Are we hitting the limits of some current market data technologies? Yes, says Johnson. "In some areas, we are hitting the limits in what the traditional technology that is being used can do. If you take relational databases used in the powerful front-end trading systems and compliance systems, they are hitting limits. Over the last few years, people have been moving more to in-memory databases. For data sets larger than 30 days, firms are using column and vector databases," he says.

Johnson continues: "These vector databases are becoming the place for the repository of the historical data. For in-memory databases, you can only keep 30 days of data and if you want more sophisticated back-testing, you have to go elsewhere. I have asked people how much data they would like to analyze. One technical analyst at a major Wall Street firm said, 'I'd

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like to analyze data all the way back to the Civil War," recalls Johnson. He concludes that this need for data has out-stripped the data covering the last 30 days of trading. "There is a hunger for hundreds of flavors of data across any group of traders," he says.

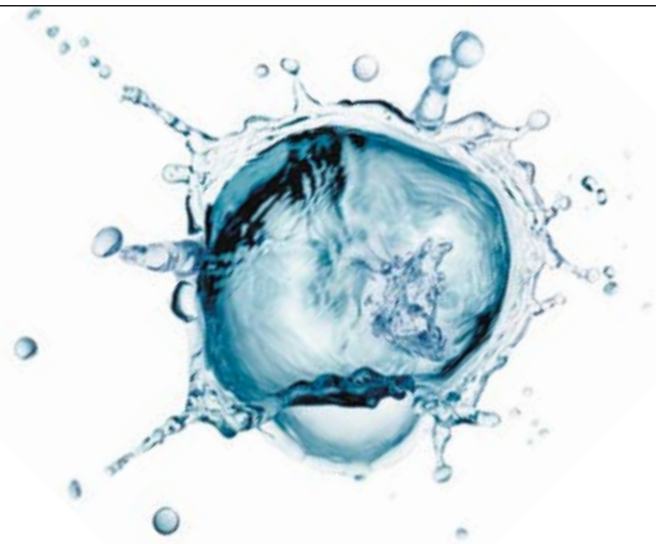
In a surprising round of answers, 89.5 percent of respondents said their firm is not relying on a complex event processing (CEP) to integrate real-time data with historical market data. Further, 57.9 percent replied that their existing architecture does not include new data types for weather, temperature, political events and more. "Data types and classes are clearly

expanding. Looking at things like that, you have to ask if they can support it. History has shown that when something can be traded, it will be traded," says Johnson.

Although these problems continue to vex investment firms and especially the technologists who have to solve these problems, there is a silver lining. According to Baskan, the survey proves that firms are not alone. "These are common problems and there will be more collaboration and attention paid to solving them. Unity in purpose is a good thing," he says. "You don't want to be the only firm on Wall Street that has this problem." ■

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