



Building the first generation OMS-EMS

Is the market ready for a combined order management-execution management system?

As David Quinlan, president of Eze Castle Software tells it, when BNY ConvergEx was formed last summer, bringing together assets from BNY Securities Group and Eze Castle into an independent company, the foundation was laid for a deep integration of trading assets.

The deal brought together different elements of the investment process ranging from research, commission management, and liquidity management, to Eze Castle's order management system (OMS).

“These elements had been standalone, and are now converging into sets of services and technologies to meet the needs of the future,” Quinlan says. “There is a trend to bring more tools onto the desktop and clients are looking to converge these tools onto one application, like an OMS-EMS platform. We tried to do this years ago through partnerships, but found one critical problem with partnerships: you don't own the source code. We realized that if we wanted to do something different, we had to go beyond forming a new partnership or a leasing agreement. There had to be a singular ownership structure of the key assets.”

Among the fruits of that new ownership structure will be a combined EMS-OMS (execution management system-order management system) that will debut later this year, with a preview at the Securities Industry and Financial Markets Association (SIFMA) Technology Management Conference in New York in June.

BNY ConvergEx's Eze Castle is not the only entity working toward this goal. Investment Technology Group (ITG), owner of the Triton EMS for list-trading and the lighter Radical EMS for single-stock trading, bought the Macgregor OMS in 2005. An integration of the two



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is expected in the next 18 to 24 months, according to Andrew Larkin, ITG managing director.

Meanwhile, Fidessa, whose OMS has long had a stronghold on the sell side, made its first foray into the buy side with an EMS rather than an OMS. The Fidessa EMS for the buy side was introduced last year. Then this April, the company announced it had acquired LatentZero, adding an OMS (Minerva) that already has EMS capabilities to its buy-side tools. There were no immediate plans to further merge its own EMS product with LatentZero, but down the road, who knows?

But just as it begins to appear that the industry is rallying around the combined EMS-OMS as the tool of the future, many others are standing firm in their belief that a combined tool is not the way to go.

As Sang Lee of Aite Group puts it, "Some players see this as a big opportunity. It's not clear how large the market for this is but it's large enough. There's a widely accepted trend toward a fully integrated OMS-EMS. But keep in mind that a fully integrated platform is not for everyone."

THE HISTORY

Discussions on the divergent views of the roles of EMSes, OMSes and combined OMS-EMSes are best begun with a look at what the two products are and what problems they were developed to solve. As Jim Leman, principal and head of the capital markets practice at the advisory and consulting firm Westwater Corp. recalls, the OMS that entered the scene in the late '80s was primarily intended to help the buy-side desk become more paperless.

"Originally they were not connected to brokers, there were no live price feeds, but they served quite well to get people off paper tickets, off a more manual system and onto a paperless environment. They eliminated errors," he says.

Though today's OMSes have broker access and live prices, the EMSes emerged from a different market need.

"There was more rapid change in the late '90s. Algorithmic trading became more interesting, and hedge funds as a buy-side customer base began emerging. In many cases, the long-only asset manager, under the gun, started changing and expanding products to become more attractive," Leman says. "EMSes began for the greater analytic requirements and to focus on liquidity diversity in the markets, DMA tools and other markets internationally as well as listed options and futures."

EMSes are traditionally lighter-weight systems, often run as ASPs from a vendor's central database and focused on the type of analytics and data that hedge funds crave such as position management from multiple prime brokers and intra-day realized and unrealized P&L. Because of their lightweight structures and heavy analytics, the first EMSes appealed to hedge funds and small asset managers that didn't want to have to manage too much software in their data centers or have data centers at all.

Today, many buy-side firms have both EMSes and OMSes, with the OMSes doing the "heavy lifting" of managing compliance



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requirements and connecting with accounting systems, says Lehman, adding that a number of OMSes are adding EMS-type features and vice versa.

TABB Group analyst Jeromee Johnson lists compliance, reporting, allocation, clearing and commission management as the traditional OMS functions. EMSes, by contrast, have excelled in custom transaction cost analysis, dynamic algorithms, order and execution automation, sell-side order handling, and portfolio and program trading.

This is where the debate about a combined OMS-EMS comes in. For the many buy-side firms now balancing both OMSes and EMSes on their desktops, would it be easier to have one system with more seamless integration between the different types of functions? Some say yes, but others say that to remain cutting edge, EMSes will have to continue to be lightweight standalone systems that can be easily modified on the fly. Meanwhile, even without the building of a super EMS-OMS system the products are inching into each other's spaces, TABB Group's Johnson notes.

THE CONGLOMERATES

For BNY ConvergeEx, ITG and royal blue, the tools for creating a combined OMS-EMS are all in place. The next step will come when these companies reveal how and if they will put the pieces together.

Quinlan, of BNY ConvergeEx's Eze Castle, sees a definite benefit of merging the two systems.

"Today's interaction between OMS and EMS often involves a complex shift of hands to another keyboard and different screen rules," says Quinlan. "Clients are getting sick of jumping across vendors. When you own the code, you can kill the concept of different systems for different parts of the process, reduce the swivel effect by consolidating desktop space and get rid of the extra key strokes. Ultimately, you're talking about bringing together tools like TCA [transaction cost analysis], DMA [direct market access], EMS, or crossing and embedding these things into one OMS platform."



Having brought it more tick information and data, "the next step is being able to run analytics out of the OMS," says INDATA's Dave Csiki, but he advocates a more gradual evolution.



The lighter-weight EMSes emerged from a different market need than OMSes and focus on the type of analytics that hedge funds crave, says Westwater's Jim Leman.

Adds Jeff Gavin, electronic trading product manager with BNY ConvergEx's Eze Castle: "Think of the desktop real estate. Some firms' traders have eight screens from different applications. In the future, I don't think firms are going to think of OMS, DMA and EMS as different pieces," he says. "Imagine that all that functionality could be inside the OMS piece. Clients would have the ability to do all the compliance before sending to market, and it [the order] could start and end in the OMS."

The combined system that BNY ConvergEx's Eze Castle is building will come in stages. The company envisions basic calculators living right on the blotter so that firms can benchmark what they are trading against intraday data on a fairly real-time basis. The company also expects to add transaction cost analysis to the system, says Rob Keller, vice president of product management.

"The OMS has become the core of the investment process. Integrating more components of the process into the OMS will help add more efficiency to our clients' operations," Keller says.

Eze Castle will be leveraging Microsoft .NET to build out and integrate the different pieces of the new service.

"That's critical," says Quinlan. "This is going to be architected in a different way going forward. Many don't think the old OMS architecture can handle all this functionality, but with the new architecture, there will be a performance nimbleness of being able to deeply and quickly integrate with different components of the process."

Meanwhile, at ITG, managing director Andrew Larkin says the company has seen different types of uses of EMSes, but "clearly, the OMS talking to the EMS is the focal point," Larkin says.

In addition to the Radical and Triton EMSes, ITG includes Macgregor OMS it acquired two years ago, the POSIT crossing network and a host of other trading tools.

"What we are trying to do is take the best of breed EMS and OMS and offer a mixed product so the EMS and OMS are tightly tied together," Larkin says.

Some work has already been done to make the two systems look more similar in terms of interface, Larkin says. There is still more work to be done on the basic architecture over the next 18 to 24 months.

Larkin acknowledges skeptics to a multi-faceted system, but he says the firm's experience in building a flexible, nimble EMS will carry over to the new OMS-EMS product.

“Historically, order management systems have performed poorly in the EMS space. As the marketplace continues to change at a rapid pace, interfaces need to be much more customizable. Order management systems have traditionally been less flexible and more difficult to change,” he says.

The Triton EMS, which is .NET-based, was designed to be very customizable and flexible, Larkin says. Having designed Triton for a fast-paced, changing market, ITG will architect Triton’s flexibility into the OMS components of the combined product.

The product will be structured to appeal to a wide variety of users, from hedge funds to more traditional asset managers. Some aspects of the new system, for example compliance, may make more sense to offer as modules, Larkin says.

PLAYING BOTH SIDES

Fidessa continues to have a stronghold on the sell side, where the Fidessa OMS has 85 percent penetration of tier 1 brokers. But over the past year, the company has made significant moves into the buy side as well.

Fidessa’s first foray into the buy side came last summer when it introduced the Fidessa Execution Management Workstation of Fidessa EMS. Why did a company known for its OMS on the sell side choose to take its first steps into the buy side with an EMS rather than an OMS? Because with the growth of the hedge fund market, the company has seen several sell-side traders move over to the buy side to hedge funds. The company decided to leverage its sell-side reputation with these sell-side-turned-buy-side traders by offering a buy-side product with the execution functionality to which they were accustomed.

“It was a perfect evolution to the EMS on the buy side. The traders were sell-side traders and they had certain requirements for their desktops that they were looking to go out and execute with. Putting out a product that satisfied that group was fairly easy for us to establish,” says Jack Garceau, executive vice president with Fidessa.

The Fidessa EMS is an ASP product aimed at a range of buy-side players, including hedge funds, proprietary trading desks, traditionals, private banks and mutual funds.

“The EMS buy-side players are looking to take more control of their trading activity,” says Martin Hakker, executive vice president of marketing for Fidessa.



Greg Treacy says NeoNet trader’s niche has been its international presence all over Europe.



Peter Gaffney says Axes' GEMS reaches not only global markets but "frontier markets" like Romania and Zimbabwe. It's not all DMA, because not all the markets trade electronically.

Hakker notes that the Fidessa EMS connects to 68 exchanges and handles multiple asset classes or multiple currencies. He also notes that it is broker neutral.

"On the point of being broker neutral, if you talk to analysts, a number of these EMSes that are standard are acquisition targets of bulge bracket firms," he says.

The Fidessa EMS is Microsoft-based and supports XP, Vista and Windows at the user level front end.

On April 16, Fidessa moved further into the buy-side space with its announcement that it had entered into an agreement to buy LatentZero. LatentZero has a buy-side OMS, Minerva, that is offered either alone, or in a version that has already been extended to include EMS capabilities. The company also offers a portfolio analysis and scenario modeling product for order generation; a pre-and post-trade compliance product; and a workflow and trading tool for OTC derivatives. LatentZero uses Windows 2000/XP and .NET on client applications, as well as NT in application servers and SQL server databases. There were no immediate announced plans to integrate the Fidessa EMS with LatentZero's buy-side products, but down the road, who knows?

Richard Jones, chief executive of LatentZero, says the two companies would work together to develop an integrated buy-side and sell-side business.

"The products and services that Fidessa offers match closely what our buy-side customers are asking for and this transaction will enable LatentZero to accelerate its strategy of delivering connectivity services, market data and analytics to its customers as well as expanding its geographic reach, scale and support services," Jones says.

SEPARATE BUT EQUAL

Just as there are several players looking to put it all under one roof, there are others who believe OMSes and EMSes are different and a rush to put it all together could be problematic.

"Regarding our precision trading we see a convergence of functionality when we go out and talk to traders. There's an expectation that the blotter will integrate analytics, which has traditionally been seen in the EMS only. We've also integrated live quotes more deeply, using level two quotes," says David Csiki, INDATA managing director. "Bringing in all of this tick information, the next step is being able to run analytics out of the OMS," he says, but he cautions that this may be best for the industry as a gradual evolution.

"What people are talking about at the radical extreme is that instead of two, having one super OMS-EMS, and we don't see that

happening. The traders have already used the EMS and they like the functionality," Csiki says. He envisions tighter integration, but not necessarily a combined product in which each system would have to share characteristics of the other.

INDATA's IMS, or investment management system, product suite consists of modules for trade order management, portfolio modeling, pre-and post-trade compliance, portfolio accounting and reporting, performance measurement, composite maintenance, billing and Web-enabled CRM. The company's technology is Microsoft-based from back-end to front, including the use of SQL Server 2005, 64-bit edition and SQL reporting services. INDATA uses no other proprietary technology other than Microsoft.

In the hedge fund space, Csiki notes the appeal of a combined system might be greater as many funds are just starting up and want a system that delivers the most bang for the buck. For asset managers, he questions whether they even want to get rid of their two monitors. And even for the hedge fund industry he warns that the industry is so varied, that even a very flexible system might not cover everyone's needs.

INDATA continued to update its system by integrating more analytics into the blotter and adding trade cost analysis and more detailed quotes and tightening integration with EMS systems.

GOING GLOBAL

Another perspective on the one-size may not fit all view of OMS-EMS may come from a look at the businesses of NeoNet and Axes. For these global agency brokerage firms, rather than looking to consolidate EMSes and OMSes, the focus has been on tailoring execution management systems for reaching global markets or executing cross-border trades.

"In our case we have a front-end trading system, NeoNet Trader," says Greg Treacy, NeoNet director of sales. "We have many different types of clients. If you spend the money on an OMS it's a big, substantial undertaking. It's easier as trading needs change to improve or change a trading system than to rip out and replace an entire OMS infrastructure. I think that's important."

Treacy says NeoNet Trader's niche or advantage has been its international presence all over Europe. He notes that the company is based in Europe (in Sweden) and that the European market has grown by leaps and bounds.

"We focus on the intricacies of different markets – some have different rules, some have different order types," he says.

NeoNet Trader has electronic program trading functionality and a range of different order types. As an alternative to direct market access trading, clients can send working orders from NeoNet Trader to be executed by NeoNet's execution desk. Clients can follow the execution of their working orders in real-time on their screens, and they can enter, amend and delete orders instantaneously. Trades are executed anonymously and clients can monitor trades in several markets simultaneously. The company offers direct market access, sales and trading for 24 marketplaces worldwide.

EMS and OMS Fun Facts:

- *2004-2006 the number of desktop platforms used by the buy side grew at 42.6%*
- *That number will decline going forward – at an 8.3% rate between 2006 and 2008*
- *36% of large buy-side firms are building their own algos*
- *Half of those currently using proprietary algos are reconsidering*
- *EMSes have set the bar high and their number one complaint is the desire for more customization*

Source: TABB Group study "OMS, EMS or DMA: The Future of the Buy-Side Desktop"

Axes calls its EMS GEMS, for Global Execution Management System.

“Increasingly in this industry you have to have global capabilities and we think global EMSes will start to emerge. We are the first to talk about global execution management systems as in marketplaces all over the world, in 100 countries, fully-scalable, multiple currencies, multiple asset classes,” says Peter Gaffney, Axes president.

GEMS has been in use with select clients since last November but was formally introduced in April of this year. Axes has developed a network of brokers around the world. Through those broker partners, Axes offers execution, research and clearing. GEMS enables clients to reach countries in this network electronically. The company’s niche is that in addition to reaching global markets, it offers access to emerging and “frontier” markets, including places like Romania and Zimbabwe. Gaffney says it’s not all DMA because many of the countries it reaches do not exchange electronically.

“The age of the algorithm is still with us. These buy-side strategies need to be executed and I see this happening in international markets more and more. Axes and other firms are opening the gateway to go global into emerging markets,” Gaffney says.

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