



#001: OMS/EMS: History, Evolution and the Future (Bill Hebert, CFS Solutions)

Candyce Edelen: Hi. Welcome to this installment of TrendSpotters. I'm Candyce Edelen and

today my guest is Bill Hebert, an authority in OMS and EMS technology. Bill is currently an executive director with CFS Consulting Services in Boston, where he serves as the strategic advisor for clients and also guides the firm's business development efforts. I met Bill back when he was the Vice President of Strategic Development and Electronic Trading at Fidelity. He also served as Business Director at Thompson Financial, and before that was the Vice president of Trading Systems at the Boston Stock Exchange. More recently he was the Director of Strategic Business Development at Charles River. Bill also serves on several industry committees; he's been on the Financial Information Forum Advisory Board, he's been on the FIX Protocol Global Organization and currently

serves in that role, and also has served on the Boston Stock Exchange, IT

Steering and Institutional Trading Committees.

Bill, you and I go back a long time, don't we?

Bill Hebert: We sure do.

Candyce Edelen: I think I first met you back when I was pitching IBSN software to you back in the

day.

Bill Hebert: I think it was, Candyce. I think it was probably the beginning of my tenure at

Fidelity.

Candyce Edelen: So today we want to talk about the evolution and convergence on the Order

Management System and how the EMS or Execution Management Platform

started to develop and go over some of those business drivers.

Bill Hebert: Sure.

Candyce Edelen: So let's get started. If you could just talk first about the evolution of order

management systems, how the concept of execution management systems came about, and who the intended audiences were. And just for those of you listening in we are going to use the terms OMS and EMS pretty frequently, and I think everybody probably knows this, but just in case, OMS stands for Order Management System and EMS stands for Execution Management System. And

that's a great way to get started, Bill; you can start talking about that

development.





Bill Hebert:

Sure, Candyce. I think, you know, order management system was very much a revolutionary need and idea back in the early '90s, particularly for buy-side firms. And when I mean buy-side, I'm sure a lot of people on the call understand, but it's the institutional fund managers, it's the 1940 ACT fund and other asset management firms that are out there. And what was interesting was a lot of the flow of assets going into mutual funds back particularly over the last 15-20 years or so, the need for efficiencies on all levels increased to the point where portfolio managers had to be more competitive and make more intelligent decisions with much more qualitative and quantitative data. And as a result of that, the need for efficiencies as far as processing trade data and communicating to the institutional order management capabilities or the functions within the order management room there, became much more of a demand.

And the ability to take all the disparate systems that were on the different desks in the buy-side trading room and make them work as efficiently as they needed to be, given the demand coming from several directions, became quite a challenge. And as a result a lot of technology firms stepped up, a number of them still in business today and very, very successful, and developed the ability for the buy-side trading room to become more efficient. A lot of the functions they had in there, including processing pre-trade indications of interest and block orders and post-trade allocations and those sort of things were all run on disparate systems, and the demand was to try to put those together.

The other two key functions that came together that were important were the ability to take things like compliance and modeling, and compliance became an even greater demand for the buy-side because of some of the regulatory requirements, as well as some of the business requirements in managing particular funds that it became necessary to have automated tools to be able to manage that trade volume as well as make intelligent trade decisions.

Candyce Edelen:

So let's bring it up a little bit more to modern day, Bill. The EMSs started kind of developing out of that and were doing other things that were related to execution. And so it's like the OMS started out kind of more at the portfolio manager, I believe and integrating these disparate systems, but then the EMSs started coming out. What were some of the drivers and pain points that drove that?





Bill Hebert:

Well, that – that's a key point, Candyce, and it makes sense. I think the OMSs really were trying to consolidate desktop order flow on the buy-side. The EMSs really came from different areas; the EMSs came and they weren't called EMSs originally; they were called things like direct access platforms or active trader platforms. They came from a couple of different areas, which coincidentally enough, were not the buy-side.

The original EMSs, which were thought of as direct access or direct market access tools came from active traders, which actually was the retail market, a lot of those products came out of there, and they had market data or analytics as well as intelligent trading capabilities. And they also came off of program trading desks, which were actually on the sell-side. So a lot of the buy-side was actually going to the sell-side with blocks to be traded intelligently, and the tools that the sell-side was using on the program trading desk were what we think of today a type of EMS. So the convergence of those two actually came about as the buy-side had greater demand to pull that functionality up onto its own desk.

Candyce Edelen:

So what are the distinctions between an OMS and an EMS? It's a question that has been running around the industry for a long time, and it seems that different companies draw different lines of distinction.

Bill Hebert:

Right. Well, the OMSs really, if you think of them as kind of the core of the trading room. If you think of the OMS as the heavier application that manages the block level orders, that processes the indications coming in from the brokers, that handles the post-trade allocations and consolidates, as well, the flow coming from individual portfolio managers that might be taking actions on the same stock that need to be aggregated. So the OMSs effectively are the hub of the processing within the institutional trading room.

The EMSs are much more geared towards really active trading and accessing electronic products, such as algorithms today, intelligent order routing, crossing mechanisms. And they evolved out of a trading universe as opposed to a block-level management universe. But the demand today on the buy-side, where they're assuming much more control over trading capabilities and becoming more sophisticated in accessing liquidity there is now much more of a demand to have EMS functionality on the buy-side desk.





Candyce Edelen: So is there really even room in the industry today for an order management

system that does not contain execution management capabilities?

Bill Hebert: Oh, absolutely. I think you still have a lot of fund managers, a lot of buy-side

firms that still are very much dependent upon the sell-side, dependent upon the brokers who handle some of the more sophisticated trading activities that take place or the services that they need. So, certainly the OMS is, for a large buy-side firm, for a large fund manager, an OMS is mandatory and EMS is...I won't say it's a nice-to-have...at one time it was a nice-to-have. But I think that it depends on the firm's strategy and their direction. If they want to assume more control over the electronic trading capabilities and access the various products in the industry that are provided by brokers and other entities, then they would bring an EMS onto the desk.And I think if the buy-side really wants to take more control of their destiny, which seems to be the trend – it's not mandatory, but it's the trend – then they will have an EMS, or at least the functionality

associated with the EMS built in or integrated with their OMS.

Candyce Edelen: Is there a particular type of, say, buy-side firm that might not be interested in

taking control over that? What are the drivers for that? Like if a new entrant was coming into this field, who would they be targeting if they don't have EMS

capabilities, for example?

Bill Hebert: A new entrant coming into the field from which direction? From the EMS

direction?

Candyce Edelen: From an OMS. Say – say a new OMS entrant.

Bill Hebert: I would think if you look at the different type of profiles on the buy-side, you

have hedge funds, for instance, which are then much more of interest in the past ten years or so, and brokers are responding to them by providing prime services and EMS platforms, etc. They're very active, they need to have EMSs.

If you look at the fund managers, you have varying degrees of fund managers that may have technical staff, they may have people within their shops that are actually in a lot of cases come from the sell-side that are active traders. And if they have that talent on staff and they have the wherewithal and the strategic direction to be much more on top of what's going on at the marketplace level, then that particular firm will adopt an EMS and have been adopting EMSs. And you'll still have a lot of firms that are long-only or even registered investment advisors that still are not trading as actively; they may be trading blocks with brokers, they may be trading through existing relationships, and just haven't had the demand nor have they hired the talent necessarily, that does that type

4

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of execution and still depend largely on brokers. So you still have different variations of this in the marketplace today.

Candyce Edelen: So what are you seeing in terms of the evolution of these systems? What are

some of the drivers that are causing these systems to change and evolve today?

Where do you think they're going to go?

Bill Hebert: One of the things that's happening obviously is that the whole commission

structure in the industry is changing. I think everyone knows that. Commissions gone from \$0.03 to \$0.05 a share in some cases, and I'm just throwing a number out there to sub-penny for electronic business. And as a result of that it becomes much more competitive; the buy-side's really endeavoring to use their commission budgets more wisely so that their profits and returns are better, and as a result of that the brokers have had to become very strategic and ingenuitive. So you see brokers very much focusing, even though they have

sales trading desks and sales trading support and clients, they still are very much, and there are a few in particular that are very much geared towards developing algorithmic product, electronic product, and then incorporating that

into the various EMSs out there that their clients might be looking at.

So I think a lot of the direction that you're going to see going forward both on the buy and the sell-side is towards the electronic model, and EMSs and access

to EMSs are a huge part of that.

Candyce Edelen: And, you know, you and I have talked a lot about the differences in the

evolution that you've seen between single-broker systems and multi-broker systems, with the issues around multiple asset classes. It seems like these things have been evolving and moving back and forth. Let's talk about single-

broker versus multi-broker first. What does the buy-side want?

Bill Hebert: The buy-side wants efficiency, and they want returns, and they want execution

quality I think above and beyond. And what else is driving this is some of the changes in the regulatory side of the things. Regulation NMS, which was actually implemented a few years ago, leveled the playing field as far as liquidity is concerned. As far as accessing market, as far as being able to get to the multiple 50-some-odd dark pools at least in the U.S. that are out there and using intelligent order routing, there is the need to have the electronic tools available to the buy-side, whether it's through a broker or whether it's through an EMS

system that's incorporated into the OMS.

So the buy-side's looking for efficiency, they're looking for the ability to take control of their own destiny while still using the broker products that are out there, but at the same time, they don't want to clutter their desk. I think they

5

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had a problem in the '90s, which was solved by the emergence of OMSs, where there was consolidation of functionality onto a single platform. And we're almost seeing the same thing happening again, where there's multiple EMSs that are broker-provided, showing up on buy-side desks. So I think what you're going to hear more and more is the buy-side now saying, "I want one platform that's multi-broker," and that seems to be the trend.

Candyce Edelen: How's that going to affect revenue models? I mean the single broker was a

pretty straightforward revenue model; I give you the platform, you do all your trading with me, and therefore I make money. But the revenue model has to

change with a multi-broker system and to pay for it.

Bill Hebert: Well, the EMSs in large part, you know, people like to say EMSs are free.

Nothing is necessarily free.

Candyce Edelen: 'Cause somebody pays for it.

[Laughter]

Bill Hebert: Exactly. The concept being that desktop real estate is key to getting order flow

and commissionable order flow, whether that's executed electronically or executed through a human being. I think that's the key to the magic here as far as how brokers are going to position themselves to succeed; is do they want to put their own platform up there and be client-facing and own the desktop.

That's an interesting strategy.

But in order to do that, those brokers have to be multi-broker, meaning they have to offer connectivity to their competitors through that EMS platform.

And then similarly, if you look at brokers that are saying, "I don't want to fight for the desktop space. I would rather spend the time trying to improve my electronic products so that I am competitive or better or get better execution

quality than my other competitors".

That's a decision brokers are making today, "Do I want to spend the time trying to own the desktop or do I want to spend time trying to improve my electronic products and then just stay in the race and try to prove that I can do a better job

than one of my competitors?"

Candyce Edelen: So kind of going along that theme, Bill, each of these broker dealers is trying to

offer some sort of distinction, some sort of value proposition of why the buy-

side should route order flow to them instead of their competitor. And

historically a really strong OMS has definitely been an attractor for order flow, and now, with better execution algorithms, better technology behind it to get it





to go to market faster, different things have been different value

propositions...How are brokers competing now and how can brokers in the mid-

tier compete with the top tier to get that order flow?

Bill Hebert: It's very interesting, Candyce. You know, one other thing I didn't mention we

were talking about, the commission models and the revenue for the brokers is

the fact that soft dollars has changed completely.

Candyce Edelen: Yeah.

Bill Hebert: And it's been augmented by what we call commission sharing arrangements,

which isn't exactly the same thing; it's more partnerships between brokers who provide research with execution brokers. So it's more brokers, as you would say, in the mid-tier sometimes they have to make some decisions. If a broker in the mid-tier doesn't have the electronic capability of say a broker on the larger tier or the more diverse tier, or global tier, they may say, "Look, I have a

research product that is very well received and paid for, and I'll just partner with

somebody else who is better on the execution side and provide a CSA

arrangement.

But it still comes down to the buy side really saying, "How is it I want to be

serviced?"

I think the demand today to the buy-side is execution quality and also managing your commission budgets, and that now is where the arms race is between the brokers — its who can provide the best electronic product, the best execution, and in some cases they provide transaction cost analysis so that the buy-side

can measure what each broker is doing and how they're doing it.

Candyce Edelen: And you and I have talked before about the impact that hedge funds are having

on those development roadmaps. Why don't you share a little bit of that?

Bill Hebert: Well, it's interesting, 'cause hedge funds, if you go back ten years, when

commission budgets and soft dollars and things started to change, a lot of brokers made strategic decisions to make a greater investment into prime services solutions. So a lot of brokers would go out and offer securities lending and stock loan and custody and that sort of thing to hedge funds that would then do business with them. And hedge fund really drove in a lot of cases, along with the brokers that were providing the prime services to them, drove the

development of a lot of the EMSs.



Candyce Edelen:



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And just to put it very simply, if you look at an EMS and you've got real-time market data and you have trading capabilities and three-dimensional trading capabilities on orders and algorithmic capabilities and intelligent order routing; then on top of that you build into the OMS the ability to do affirmative determination on short sales and the ability to go out and borrow stock and do securities lending. That drove a lot of the EMSs to do develop in areas that they didn't expect to in the past.

And there may be some other things going forward, but I certainly see that both on the hedge fund level and some of the traditional buy-side fund level you're going to see much more drive as far as strategic development, towards automation in multi-asset class and global securities.

Are you also seeing increased sophistication and demand for, um, more algos

and more smart order routing options in addition to the multi-asset?

Bill Hebert: Absolutely. And that goes back to the arms race we were talking about with the

brokers. You know, a lot of people, if you're talking about algorithms today they'll say, "Well, you know, there's seven or eight different types of algorithms fundamentally," there's a lot more, obviously. But the fact is that that's where brokers are going to have to stay competitive. And in order to do that, you hear things today, you know, with conferences and some of the media about what's the next generation for algos or intelligent order routing, and I think one of the things that's being talked about now is a lot of algos are driven off of market data for the most part – almost in an artificial intelligence type of way. The next generation that's being talked about is taking other types of quantitative and qualitative data, such as research and news, if you can imagine, and building algos that might actually make decisions based upon those types of data feeds.

Candyce Edelen: You know, it's funny, we used to call it the "sleepy buy-side". I think they woke

up.

[Laughter]

Bill Hebert: They certainly have. You look at a lot of the buy-side firms that have out there

that have been very visionary, while maintaining very good relationships with the brokers that they have relationships with and that they depend upon for product and execution. But they still I think are taking matters into their own hands in a lot of cases, and whether it's through an EMS or building the ability to measure execution on their own and do direct-market access still using a broker partner of sorts or going through an execution or member of exchange or a dark pool that that a broker provides or crossing network, but getting much

more mechanized and much more sophisticated in how they trade.





Candyce Edelen: Wow, it's an exciting area. I think we are out of time, but thank you again, Bill,

for being my guest. This has been fascinating and it's exciting to hear what's

going on in this part of the industry.

Bill Hebert: Certainly, Candyce.

Candyce Edelen: My guest today has been Bill Hebert of CFS Consulting. If you have questions for

Bill you can e-mail him at B-H-E-B-E-R-T, that's BillHebert@RCN.com.

I'm Candyce Edelen, CEO of Propel Growth, and I look forward to joining you

again next time on TrendSpotters. Have a great day.

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