Catching the sun

Providers of technology and services are queuing up to bask in the reflected glory of financial markets darlings the hedge funds, but meeting their STP and systems requirements is not as easy as all that

By Thea George

To the great delight of the software vendors, the hedge fund community is demanding increasingly sophisticated technology solutions, and the concept of STP, particularly as it applies to connectivity and control, is resonating more and more with this section of the buy side. A number of factors are conspiring to drive this trend. As they attract more institutional investment, the hedge funds are obliged to demonstrate the high levels of operational control and reporting capability to which such investors are accustomed: this requirement for more robust controls is intensified by an increasing regulatory focus on hedge funds. Meanwhile, falling returns from traditional hedge fund strategies are encouraging a diversification into ever more complex strategies, which in turn is generating a requirement for systems able to support such sophisticated activity.

Given the relative dearth of spending on technology – particularly in the investment systems space – during the past few years, the vendors can be forgiven for rounding on the hedge fund space with their solutions. Indeed, suppliers of systems for both buy and sell sides are targeting hedge funds as a potential new customer base. But all is not as rosy as it might at first glance seem: the hedge funds want highly functional systems and responsive customer service, but are not prepared to spend anything like as much as traditional long-only managers historically have been. Investing more and charging less is a difficult financial model by any standards. Keeping up with the hedge funds' rapid movements in and out of fashionable instrument types is also a challenge for the software providers, and they often find that by the time they have created one piece of required functionality, the need in the market has moved on again.

Clare Flynn, president of hedge fund system provider Beauchamp Financial Technology, is in no doubt as to the main trend shaping the hedge funds' business and their requirement for technology. "The biggest trend facing the hedge fund business today is institutionalisation – that is, the requirement by investors and regulators for hedge fund management companies to look and behave more like traditional fund management institutions," she told *STP*. "Today, a start-up needs to raise upwards of $100m on day one to have a good chance of survival, and in order to raise that kind of money, it needs to be able to satisfy regulators and investors that it has technology that will not only minimise operational risk, but maximise its ability to generate investment returns."

Jayesh Punater, president and CEO at Gravitas Technology, echoes this point. "Historically hedge funds were small shops, mainly pursuing equity long short strategies, which came out of larger institutions and subsequently grew," he says. "During the past year we have seen

launches of billion dollar hedge funds that are multi-strategy and global from the outset and require an institutional footprint from day one, as opposed to developing in phases. These funds have an increased demand for technology."

The pursuit of complex strategies and investment in new security types is no longer confined to just the biggest funds, asserts Robert O'Boyle, director, global accounts product marketing at Advent. "If you look back 18 or even 12 months ago it was large hedge funds of $1 billion plus who had multi-prime relationships, multi-strategy approaches, were doing 5000 plus trades a day and were investing in all different types of securities," he told *STP*. "Now we find multi-product environments, high trading volumes and multi-strategy scenarios all the way down to the $300m-500m shops. That is a dramatic difference."

For Fergus Healy, global product head, alternative fund services at Citigroup Global Transaction Services, "the biggest trend in the past few years has been the enormous growth in the hedge fund business". "This has led to hedge fund managers requiring a greater level of automation and STP," he says, "in terms of getting information to and from service providers and to meet the need from investors for more frequent valuations. Historically valuations had been done monthly, but increasingly investors are requiring valuations weekly and even intraday." Citigroup has responded to this increased requirement for automation in a number of ways, he says. "To meet the hedge funds' evolving requirements we have automated feeds between us and the prime brokers, we have a flexible upload tool to get information from the managers and we perform automated reconciliations. We get prices for unquoted instruments from third party vendors. In addition, we recently launched an internet reporting tool for managers and investors, called HedgeLink."

STP is a driver for hedge funds, though their approach to it differs from that of other sections of the securities industry, Flynn believes. "Hedge funds tend not to have the depth of operational staff to talk about STP in general – but they are all too aware that there are certain parts of the trade lifecycle that shouldn't require human intervention in the computer age. Most hedge funds are interested in keeping their operations lean and mean, which effectively means maximising STP, without creating actual taskforces on the subject," she says. Steve Wilkinson, CEO at Solutionforge, adds that "hedge funds are not so much interested in STP for STP's sake", as "for the benefits from the perspective of scaling the business and doing more trades without employing lots of traders".

Jim Dennelly at FNX, provider of the Aspen Hedge trading and risk management solution, believes the connectivity aspects of STP are of paramount importance. "We deal with banks, insurance companies and hedge funds and nowhere is STP more prevalent than in the hedge fund world," he says. "This means connectivity. Hedge funds typically want to connect to various exchanges and 12 or 13 prime brokers. We currently connect to eight or nine prime brokers and 15 or 16 exchanges – and we are adding four or five a month. I can't stress enough how important that is."

The success of hedge funds going forward is dependent on their adoption of STP, suggests Bob McGrail, executive managing director of DTCC's domestic and international core services. "Given the newness and state of technology in place within the hedge funds, STP is imperative to long term success," he says. "The lack of STP on the part of the buy side will impact the entire community, if we cannot help them automate processes required to ensure all trading parties can complete transactions."

McGrail reports that hedge funds have been keen to exploit its DerivSERV matching system for OTC derivatives. "Historically we have struggled as an industry to attract the buy side to participate in STP initiatives. In this case, the business case for buy side involvement is strong," he says. "To begin with, we don't charge the buy side, including hedge funds. And the case for applying STP to these trades is very clear. We have actually found the hedge funds to be more forward thinking regarding STP than some of the traditional buy side firms. These are large transactions, and it is very easy for traders over the phone to misinterpret each other. It is critically important that these trades get agreed in a shorter timeframe: where our service is used, they are mostly being agreed in days, rather than weeks."

Hedge funds' growing use of OTC derivatives is creating technology challenges for the managers themselves and for their system and service providers, says David Aldrich, head of securities industry banking, Europe at The Bank of New York. "Traditionally 80 per cent of hedge funds have been long short equities and the most complex derivative they used was a CFD, which is not a complex derivative and from the administrator's perspective and the fund's perspective is treated similarly to a straight equity. Now even these funds are moving into more complex derivatives," he told *STP*. "This greater use of simple and complex derivatives means that the hedge funds have to change or upgrade the portfolio management systems they use, and the administrators have even greater need for both more robust procedures and especially system capabilities around all OTC products."

From the administrator's perspective, a key issue currently is the accurate and timely valuation of OTC derivatives, Aldrich says. "What technology and people resource do we need to address that requirement? The aim is to be able to automate the valuation of portfolios of OTC derivatives, both complex and simple, on a fully scalable basis. One route is to go to an independent valuation agent such as Lombard Risk or Reech Capital: you take your portfolio of securities, send them to the agent to be worked on overnight and then they feed them back to you complete with valuations.

"The other route is to utilise independent data aggregators who can collate the data inputs needed – interest rate curves and credit curves *et cetera* – and then as an administrator we can utilise a pricing model and derive the valuations ourselves." The Bank of New York has an ongoing project to evaluate the best route, he adds. "Today we use a

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combination of the two: for some portfolios we value the OTC derivatives using our inhouse capabilities and for other portfolios, especially those with very large volumes of OTCs, we use a third party valuation agent. It's a client led decision."

Sunil Chadda at buy side consultancy Citisoft agrees valuation of OTC derivatives is creating challenges. "I am currently working with one of the longest standing fund of hedge fund managers in London. This client and the last hedge fund client I worked with both had issues with hedge fund administrators in Dublin," he told *STP*. "They are having problems attracting skilled staff, especially with specific knowledge of OTC derivatives. They are jumping ship for more money and that leaves existing hedge fund clients with problems with valuations. The people who need to value them are not around, which is leading to way too many errors – and ultimately the hedge fund is responsible for NAV."

As a result, hedge funds are starting to buy accounting systems to shadow some of the brokers' and administrators' activities, Chadda says. "They are supposed to be relying on the administrators, but things are changing."

Chadda observes an appetite among the hedge funds to upgrade their systems, as they grow and as their strategies diversify. "Over the past year hedge funds have seen lower returns, especially from the traditional strategies – convertible arbitrage, fixed income arbitrage, long short equities. There is too much money going into these strategies which means everyone is chasing fewer opportunities: a lot of opportunities have been arbitraged out of the market," he says.

"As a result we are seeing new types of strategies, such as emissions trading, driven by Kyoto and the Environmental Protection Act in the US, and endowment policy trading. Wherever there's an opportunity, hedge funds will move in. This is requiring systems to go towards complete cross-asset coverage. Trading systems need to cover the complete range of instruments hedge funds use, and they need to trade them cleanly, with no workarounds, in order to create an accurate real-time P&L." Two of the hedge funds with which Citisoft has worked are pursuing systems replacement strategies, Chadda adds. "They have reached critical mass on the systems they bought at start-up. They need replacing: they are old and proprietary and can only capture a subset of the instruments they trade. So we are seeing them replacing old proprietary systems in favour of new cross-asset, scalable, up to date systems."

How easy it is for hedge funds to get access to systems with appropriate functionality is a matter of some debate, though the consensus seems to be that the vendors are aware of the gaps that exist and are working to fill them. Says Aldrich: "The hedge funds are probably better served for technology than the managers would admit in public, but there is no perfect solution out there in terms of a portfolio management system for a hedge fund manager that uses a wide variety of instruments – in the same way that there is no perfect solution for the administrator for fund accounting." Adds Punater at Gravitas: "The supply side is presently rather poorly responding to some of the requirements of hedge funds. Many of the applications built previously for asset managers or sell side firms specialise in equity based trading strategies and the vendors are trying to bastardise them to cope with a broader range of asset classes and the needs of multi-strategy hedge funds. If you look at the amount of work that has to be done outside the systems in macros and Excel, it can be quite horrifying. However, the vendors have realised there is a requirement for fully functional trading and portfolio management systems for hedge funds, and they are investing to meet that need."

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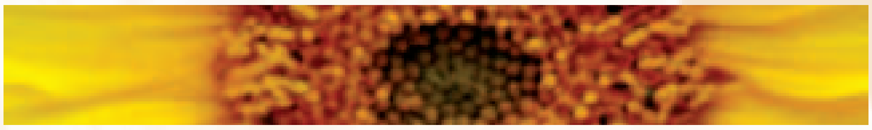

There is a degree to which "hedge funds are still trying to figure out what they need", claims Dennelly. "Traditionally they have put their trades on prime brokers' systems that handled back office and accounting, and then they managed their funds using Excel spreadsheets," he says. "But in light of increasing regulator interest and focus on compliance, these funds are realising they have to go out and get systems. Typically they are traders and risk managers who have worked in large banks and they know the big systems they used there, but because they don't now have the 20 or 30 middle office people that most banks have, they are having to adjust to that and are still working out their requirements."

The implications of the functionality gaps are non-trivial, however. Says Duncan Wheatley, head of the hedge fund practice at consultancy CityIQ: "Most of the investment systems out there meet about 80 per cent of the requirements of the long only managers and only about 50 per cent of the requirements of hedge funds. If you are going to build systems for hedge funds, you need to understand the hedge fund business. If the vendors can see the opportunity to do business in this area they will push their money into it, and indeed they are doing so, but the question is how quickly they can deliver appropriate solutions and how they will address the fact that expertise about how hedge funds work is thin on the ground."

Today, hedge funds typically make up the shortfall in functionality by developing inhouse and with operational workarounds, Wheatley adds. "A lot of knowledge of the processes is invested in operations personnel. This presents considerable problems because it means you can't reconfigure systems and operations quickly enough to accommodate new strategies. There is a real problem in filling the 50 per cent functionality gap and in taking the knowledge from individual people's heads."

A major challenge for vendors targeting hedge funds is instrument coverage, says Kevin Milne, executive vice president at SS&C. "A lot of investment technology products have their genesis in pension fund administration and fund management and are largely equities based," he explains. "Many providers have recently spent a lot on their fixed income functionality, and some do exchange traded futures and options. But the complexity of hedge funds is such that they are investing in instruments the suppliers have not even heard of – not just OTC derivatives, not just index linked instruments, but new products, not just caps, collars and floors, but volatility swaps and carbon emission futures and weather futures." An additional challenge, he asserts, is that "many of these instruments are very fashionable, very voguey": "By the time the vendor is able to put the functionality to handle them into the system, the hedge funds have moved on."

The providers present a range of solutions to the problem of instrument complexity: SS&C has an advantage because it also has a hedge fund administration business, Milne says. "We have to accommodate new instruments from the administration perspective, and we use our own technology in our administration operation, so we have to get the new instruments into the system quickly." Beauchamp's approach is to try to anticipate hedge funds' likely future needs in advance, says Flynn. "Hedge funds are constantly searching for returns wherever possible and the brokerage community, as a result, is constantly developing new instruments to meet demand. It is very important to our business model that we keep our ear to the ground and detect trends in what is being traded before they become mainstream, so that we have developed functionality to handle new securities in good time. One advantage to being an ex-fund manager is that I know who to talk to to get a lead on these things."

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A number of the vendors claim to have created capabilities within their offerings to facilitate the rapid development of new instrument coverage. O'Boyle at Advent says: "When we built Geneva, we created an environment that is generic enough that we could build – or the client could build – the functionality to handle any security it needed to. It is a very generic, broad security and data model so you can just add new securities programmatically based on parameters." In a similar vein, Dennelly at FNX says: "We have created a 'product builder' capability within our system to enable us to develop the functionality to cater for a new product in under a month."

The sell side systems providers view instrument coverage as one of the strengths they bring to table when it comes to serving hedge funds. Says Dutt Chintapalati, general manager, Americas at Calypso: "When we first started out hedge funds were not a natural market for us but during the past two years our primary sell side clients have moved into the hedge fund world and they expect to use the same systems they have used in the past, and not to just have to rely on spreadsheets. For them, solutions like Calypso, providing cross-asset capabilities, real-time risk and real-time P&L, are a fairly attractive proposition. So we have moved with them into the hedge fund space." The Calypso solution is not suitable for every hedge fund, Chintapalati says: "It's typically appropriate for the larger ones, the firms with sufficient IT budgets. Of the larger funds, if they are pure equity long short, our solution might not be right for them. But it might well be right for them if they are multi-strategy, trading bonds, credit derivatives *et cetera*."

Daniel Abitbol, product development manager for Value at Sophis, contends that providers of solutions to investment banks are in the best position to meet hedge funds' trading system needs, because they provide "quant expertise with sophisticated IT capabilities". Sophis has undertaken significant work to create a solution appropriate for the buy side, he explains, fulfilling the requirement for light implementations and easy maintenance as well as providing sophisticated software and mathematical models. Because its business spans sell and buy sides it is in a good position to keep up with hedge funds' rapidly changing requirements, Abitbol asserts. "In R&D we have almost 100 people and they are working for all our clients, sell side and buy side," he says. "There has been a profusion of new derivatives products in the past two years. Every month there is a new product to price, book and settle. The system has to react to that, and our toolkit is able to create a new product in a couple of days. Because we develop each new feature for both the sell side and the buy side, we have a very fast delivery on new products: there is a delay of two weeks between the release of the product on our sell side system Risque and its release on our buy side system Value."

Chadda at Citisoft believes the sell side systems do have strengths to recommend them to hedge funds. "One difference between a sell side and a buy side system is that the sell side system's asset coverage is typically superb," he says. "There are no workarounds and so you get an accurate P&L and risk straight away. But there is no workflow. By contrast the buy side systems have great workflow and you can plug in compliance and pre-trade compliance checking. The sell side systems do not have these APIs via which to plug in additional modules." SS&C's Milne suggests sell side systems have another weakness when it comes to hedge funds' requirements. "A hedge fund system needs a portfolio view, which buy side systems provide," he says. "The sell side systems' views are all about transactions, not portfolios. Hedge funds want real-time P&L and sell side systems are really smart on real-time. But they don't offer the spread of execution venues hedge funds like. So the real-time capabilities are positive, but the sell side systems don't provide the necessary connectivity or enable a portfolio view."

The demanding nature of hedge funds as customers is another pressure with which vendors rounding on this community must deal. "With long only funds, they tend to upgrade the software every two years," Milne says. "It is a nice, leisurely way of doing things. In the hedge fund space there is a much more rapid turnaround of enhancements and functionality. The requirement for general business responsiveness is something a lot of the traditional vendors are not used to." Adds Abitbol: "Our hedge fund clients don't hesitate to call us at home at midnight: they work days and nights and expect the same from us." A global servicing capability is also vital, says Healy at Citigroup. "Trends move east: what is happening now in the US will be happening in Europe in two years' time and then in Asia. And the nature of the hedge fund business means that we will always be dealing with clients who want to work with us on a global basis, and interface with us in Europe, Asia and the US."

Last but not least of the challenges providers face in successfully servicing the hedge fund community is the fact that from a budgetary perspective these buy sides typically have less to spend than their major long only counterparts. Some vendors have turned this to their advantage: Solutionforge for example has developed an execution management system specifically designed to be acceptable to the pockets of hedge funds and small to medium long only managers. "They want to put the orders out electronically and get the fills back in an STP fashion, but without spending the kind of money the big OMS vendors charge, avoiding both the licence fees and the cost and time required for implementing those types of systems," Wilkinson says. "What we've tried to do is make the implementation of our solution as simple as it can be: our belief is that it should not be much harder than installing Microsoft Office."

The other main response from the vendor community to the hedge funds' smaller appetite for technology spending is to offer ASP solutions. "All the hedge funds we deal with are looking for an ASP service," says Dennelly at FNX. "A hedge fund platform needs to be scalable and allow multiple hedge funds to operate on a single box. If you can scale up the system using shared hardware you can offer the whole community a low cost solution."

Hedge funds are becoming an increasingly important constituency within the financial markets as a whole, and for this reason providers of systems and STP services must find ways to help hedge funds of all sizes automate cost effectively, believes DTCC's McGrail. "Hedge funds' growth in assets under management and their high trading volumes mean they are very important to the financial services community we serve," he says. "We need to provide services to not only fit the needs of the largest and most sophisticated users, but also the small. The sum of the small will at some point in time equal the sum of the large, and if you don't provide services to the small they will end up generating as many problems for the big broker/dealers as the major hedge funds do.

"Success comes from the ability to segment the market, to provide services at a cost and level that the hedge funds are prepared to pay for. We are focused not just on serving the top 10-20 hedge funds, but the whole market, and that is proving key to our success," McGrail concludes.

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