

July 1, 2005

ISSN 1741-8291 Vol 3 No 5

FEATURE: SYSTEM SELECTION

Pulling the IT trigger

When it comes to key decisions facing buy-side firms, those related to core investment strategies and trading obviously figure most prominently. But beyond that, how firms manage their IT system selection processes can have an equally crucial impact on their business.

By Stewart Eisenhart and Victor Anderson

Decisions regarding what technologies you need to start a fund, when to upgrade, if and when to leave one third-party provider for another, and when to forego vendors altogether and build something in-house are not to be taken lightly, as anyone in the industry worth his or her salt would affirm. But guidelines for successful system selection initiatives don't fit neatly across the disparate assortment of constituents that comprise the buy-side spectrum; factors including a firm's size, strategy, budget, and maintenance capability all weigh heavily on how that firm's senior managers approach tactical IT decisions. Plus, the traditionally clear demarcation between hedge funds' and long-only managers' IT requirements has blurred considerably in the wake of both greater institutionalisation at hedge funds and interest in more aggressive trading tools and sophisticated asset types at investment managers, further complicating the processes by which they evaluate whether and when to implement new systems.

Fundamentally, though, the proverbial ball on which any manager must keep an eye is how a system selection decision impacts its business – it's a simple enough principle on paper, but straying from it can lead not only to IT redundancies or inefficiencies but also material bottom-line impact.

'Survivor' consultants

Partnering with consultants during the system selection process has long been de rigueur across the financial services industry. For hedge funds and asset managers, consultants can prove particularly valuable in that managers can continue to focus on core investment operations during their selection period. The sooner a firm involves a consultancy in the process, however, the more value the manager will yield from the partnership. But firms should keep in mind that not all consultants are created equal—experience should be a vital criterion for any manager looking for an advisor.

Erwin Martens, executive vice-president of risk management at the \$325 billion pension fund manager TIAA-CREF and former chief risk officer at Putnam Investments, emphasises that firms should make sure that any consultant they hire has substantial experience in industry-specific implementations.

"The right consultants can be extraordinarily helpful in selecting an IT system – the right consultant being the seasoned implementation consultant, because implementation consultants only survive as a result of practical and demonstrable

skills,” Martens observes, adding that managers should have a “survivor bias” when seeking out consultant partners.

Martens sees particular value in consultants’ ability to discern total cost of ownership (TCO) associated with a new system implementation: “Practical information about TCO can be critical to successful system rollouts. A good consultant who grasps the complete cost of a system – purchase, implementation and transition to production – is truly worth every cent of its fees.

Ed Hawthorne, managing principal focused on hedge fund clients at New York consultancy Capco, notes that bringing a third-party advisor in at the outset enables a manager to more quickly determine whether a new technology implementation is warranted, and which vendors to investigate.

“This can help determine whether or not an external technology solution is even appropriate given our understanding of vendors’ capabilities at that point in time,” Hawthorne says, adding that once a firm does decide to seek a new system, a clear and firm set of criteria must be established in order to properly evaluate providers in a given market.

“We’ve seen many cases where clients start this process on their own – it’s usually someone’s part-time responsibility – and the process drags on for a while without them getting a clear view of what their requirements are, and that’s something a consultant can facilitate very quickly,” Hawthorne adds.

Chris Grandi, managing director at hedge fund and buy-side technology consultancy Eze Castle Integration (ECI), argues that managers seeking returns in increasingly competitive, fragmented markets can hardly spare the time to undertake system selections on their own.

“Hedge fund and long-only managers are turning to consultants more frequently because they’re aware that their biggest challenge is capturing alpha,” Grandi reports, adding that from an IT standpoint, they may have experience using one or two applications, but have no purview of everything available to them.

“As the influx of new capital into the hedge fund space continues, you’re also seeing new pieces of technology created all the time – there need to be third parties out there to help managers evaluate these new systems as they become available,” Grandi continues.

Making lists, checking twice

Criteria that buy-side firms should bear in mind during the system selection process vary, of course, depending on the types of systems they’re considering; on a functional level, managers will evaluate front-office order management or trading systems differently to accounting or performance measurement applications. But the basic question, regardless of the technology being evaluated, is will it do what you need it to do?

TIAA-CREF’s Martens says that overlooking this issue can prove costly – after an expensive implementation, you’re stuck with a system that can’t keep up with your business.

"Production capacity is crucial," he argues. "All too often firms adopt applications only to find out they cannot run effectively in demanding situations such as high speed or large volume circumstances."

Beyond functionality issues, factors such as vendor track records, financial standing and levels of service should also be considered, according to some sources. Jayesh Punater, chief executive of New York-based hedge fund IT consultancy and service provider Gravitas Technology, cites serviceability as a key tool with which managers can differentiate between vendors offering similar products.

"There are a lot of providers out there, but who are the ones that really understand the businesses and strategies of their clients? These guys don't have time to analyse and test on their own, so the serviceability that vendors and consultants can provide is crucial," Punater argues. He adds that any third-party provider should have a recent and substantial track record of successful implementations.

Capco's Hawthorne sees the issue of vendors' organisational characteristics getting more and more attention from clients as they evaluate new technologies. Hawthorne attributes this to managers' past experience with providers that ultimately proved too hard to work with.

"It's often considered an area of secondary importance, but I see it moving up rapidly on clients' lists of concerns," says the consultant.

Grandi at ECI also reports greater emphasis on the financial viability and track records of vendors whose products are considered.

"There are lots of new technologies coming out that are really valuable, but their stability hasn't been proven and a lot of them have been rolled out by companies that are venture-backed – they're not profitable yet," Grandi notes.

"You really take a risk partnering with a vendor which you don't know how long will be around."

No tech for tech's sake

Perhaps most importantly, managers should keep in mind the fundamental business premise behind any system selection undertaking. Compiling a laundry list of features and functionality requirements without tying them to overall strategies or operational issues can cause more problems and exacerbate inefficiencies.

Steven Levy, chief executive at buy-side order management system developer Macgregor, urges managers not to lose sight of business-level reasons behind implementing new systems.

"It's important to bring the issue down to the fundamentals of why you're choosing a system and align that with what the vendor you're buying from is trying to deliver ... during your vendor selection process, you have to recognise what problem you're solving and then evaluate the ability of that system and that vendor to help you make a material gain against your problem," Levy says.

According to the official, firms must ask themselves what system they're buying, what it will save them, what it will get them, and how valuable it is. "That's not translated into just a set of features and functions," he warns.

ECI's Grandi echoes Levy's point, recommending that managers map out how their business runs, how they communicate, and how their analysts aggregate research and feed it into their investment decision processes before they make a new IT purchase.

"If all of these steps aren't thought through, you're just putting together a list of technologies that won't speak to each other and you end up having to hire 10 or 20 people to manually make up for these gaps," Grandi says.

Different managers, different needs

While the various aforementioned factors apply broadly to any fund manager undertaking a system selection process, significant differences between hedge fund and long-only requirements remain.

Generally speaking, the propensity to outsource as much as possible is still widespread in the hedge fund community, while long-only asset managers generally have larger integration headaches given their history of developing in-house technologies.

Martens at TIAA-CREF sees a greater need for flexibility at hedge funds, and more robust data management requirements at investment managers.

"Reaction times and flexibility are in demand in the hedge fund industry ... the long-only world is generally more of an industrial production environment," Martens observes, citing institutions' substantial client transaction and interaction requirements, record keeping, pricing and reporting.

Capco's Hawthorne agrees that hedge fund managers generally require more leveraging capabilities from their systems, while for larger asset managers, integration is vital.

In addition to this, Hawthorne strongly urges institutions looking to replace existing technologies to carefully examine the ramifications of disengaging those systems.

"A larger institution considering decommissioning a portfolio accounting platform and replacing it with a new system may find that the old one also performs other roles – you realise that in order to replace the old system, you may need a combination of two or three new systems. It may not cost any more, but it's not as simple as turning off one product and bringing in a new one," he advises.

Macgregor's Levy observes, however, that hedge fund and investment managers' IT requirements have begun to converge: hedge funds chasing institutional capital are becoming more institutional themselves, while some long-only firms are utilising more aggressive trading styles and more esoteric asset types. "In a traditional buy-side model, the portfolio manager generates the order and the trader implements it, while in hedge funds, traders have more latitude to decide how to execute orders," Levy says, adding that as some buy-side managers either launch or acquire hedge

funds and separately managed accounts, they'll need technologies that can support those operations.

"As that happens, the scope of requirements for the single system the managers would like to deploy across the board are expanding," Levy says.

The best-of-breed question

Once a firm decides to invest in a third-party system, it must then weigh the pros and cons of taking a best-of-breed application that performs optimally but will cause major integration costs, or going with a vendor that can provide adequate support across multiple functions, easing implementation but potentially compromising performance. According to Gravitas' Punater, his clients face this decision with particular consternation.

"Clients have a difficult time dealing with this issue – some want a one-stop shop for everything and others want best-of-breed, but how will that integration work?" Punater reports.

He adds that managers are often attracted to single-vendor systems because they only have to deal with one provider, but quality usually suffers in the long run. "With best-of-breed, if the client has us and a prime broker helping them put it all together, that helps." Hawthorne at Capco notes a distinction between start-up and smaller tier firms and institutional managers when it comes to the best-of-breed decision. Larger funds with ample capital and staff to address implementation and integration issues will by and large go best-of-breed, while smaller managers are best suited taking the 'plug and play' route and then revisiting the issue once they've amassed enough business to justify a greater IT investment.

"What we've seen is a preference for best-of-breed by larger institutions with the financial wherewithal to pay for them, and that also feel they'll benefit the most from customisation," the consultant says. "Smaller firms would typically go for a more integrated package, but as hedge funds evolve and increase assets, their bias towards more customised, best-of-breed systems increases."

Inefficiencies

But TIAA-CREF's Martens cautions that some firms' proclivity for best-of-breed implementations can create serious operational inefficiencies and negatively impact their portfolios—something he calls the 'IT portfolio effect'.

"Many managers either find themselves or have directed themselves into a situation where they have multiple best-in-class products but simultaneously have a major portfolio problem because of poor interoperability," Martens contends.

According to the official, the IT portfolio effect scenario is similar to one in which a portfolio manager buys an array of stellar assets that nonetheless constitute a weak portfolio due to bad correlation characteristics. If a manager's systems don't integrate well with one another despite strong individual functionality, that's a problem.

"So much depends on being able to move information between systems – one way or the other, IT portfolio concepts will be major points of leverage within firms or major points of disappointment going forward," Martens predicts.

Case study 1: CQS Management

Tony Kehoe is head of IT at CQS Management, a \$2 billion hedge fund based in London. The fund recently implemented Orc Liquidator, a server-based trading platform that supports flexible definition, modification and execution of trading strategies across multiple asset classes, broker connections and electronic markets.

According to Kehoe the crux of the decision-making process boils down to a trade-off between price and functionality. "In terms of functionality we might have an ideal world view – something that we'd like to aim for – and then we look at what that might cost," Kehoe says. "That comes down to an investment appraisal-type approach and so we look at the cost benefit and separate the nice to have with the must have functionality."

Kehoe says that CQS Management doesn't extrapolate firm ROI (return on investment) figures to guide the selection process. "ROI is not a tool we use; perhaps in a more mature organisation they probably do have that process but it's not a consideration for us, although we do look at the cost benefit, but not formally...we don't have time to do that sort of thing."

Vendor importance: Kehoe explains that his firm views the technology vendor it partners with as very important, not only from a purely technological perspective but also in terms of reputation, financial viability and reliability. "The maturity of the vendor and its support services are all very important," he says, adding that interoperability is also a crucial factor. But perhaps the issue of customisability is most important to CQS Management: "The things that we're building or trying to support are very complex business processes which are maybe bespoke and aren't traded on the market. So that's where you need the flexibility to customise," Kehoe adds.

Kehoe explains that the fund has a policy of buying its technology wherever possible as opposed to developing it in-house. "Clearly that is the principle but when it comes to structured credit products we have to build our own analytical tools. We use very little technology from our prime broker other than the products they give us in order to access their services."

Case study 2: Mondrian Investment Partners

Arthur van Hoogstraten is Mondrian Investment Partners' IT project manager based in London. Mondrian, with approximately \$650 million under management spread across three funds was formerly known as Delaware International Advisers before the organisation changed its name in October 2004.

Consistent with Tony Kehoe's sentiments, van Hoogstraten also believes there is a cost/functionality trade-off when it comes to system selection.

"In my experience the more functionality you get the higher the cost – you have to find a balance," van Hoogstraten says. You end up saying, "we have to find a system which is good enough for us and, even though it may not be the Rolls Royce of systems, it will provide us with most of the functionality that we require."

The vendor, as a business entity, is similarly important to Mondrian:

"When we do system selection those are the key things we look at – its reputation in the market, how long the vendor has been in business, its ownership structure and we always take client references, ideally two, but sometimes three or four. We talk to a lot of other people [buy-side firms] and ask them what their experiences have

been like in terms of dealing with the vendor. We don't necessarily talk about the product and how they use it, but rather how long they have been dealing with the vendor and how responsive they are on a day-to-day basis."

How important is interoperability in terms of system selection?

"To be honest it's not that much of a driver, the reason being that at the moment I think buy side technology is lagging behind the sell side when it comes to interoperability," van Hoogstraten says. "There are quite a lot of vendors out there who just don't provide common interfaces like XML for instance. You may do a short list and maybe out of the six or so vendors there may be only one that provides open interfaces. What vendors tend to do is focus on functionality of the core product and not how it links together with other systems – It's getting better but it's still a bit of a problem.

What I think is important is that vendors continue to improve their products in response to changes in the markets. Quite often the vendors say that their systems are customisable, but that basically means that we have to start developing in-house which we aren't too keen on. The way I see it is that off-the-shelf products should have the right functionality already in them, but they should also evolve over time. The area where systems usually fall short is on the reporting side; they have good core functionality but they don't offer the reports. They often say we have an open database and you can develop your own reports, but I rather have more reports out-of-the-box because otherwise we have to spend loads of IT resources developing that."