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VENTURE NAVIGATOR

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From the Editor

There's no question that assets in **Hedge Funds** have grown significantly in size over the past few years. Hedge fund growth has been attributed to institutional investors, like pension plans, endowments, and foundations looking to diversify their portfolios with investments that will boost their yields. Additionally, the growth in "funds of hedge funds", which invest substantially all of their assets in other hedge funds, has also fueled this growth. In this issue of Navigator, we take a look at the phenomenal growth in hedge funds and its impact on operations, technical infrastructure and regulation.

The steady beat from the twin drums of process improvement and automation are getting louder in the corporate actions arena. With the resurrection of the STP imperative and the growing importance of operational risk management, the securities industry is now determined to achieve quantum improvements in **corporate actions processing** (**CAP**). In this guest article, Chito Jovellanos (President & CEO, *forward look, inc.*) provides a management overview of corporate action automation initiatives across the securities industry; highlights associated concerns for investment management operations; and outlines potential approaches to address these issues.

Lastly, we share some highlights from the February **NICSA Operations Conference**: The Operational and Technical Impacts of New Products moderated by Venture's Larry Fleischman.

As always, we look forward to your feedback and suggestions for future issues of Venture NAVIGATOR!

Technology Plays a Key Role in Hedge Fund Success

With the continuous growth of the hedge fund industry, now approximately $870 billion of assets in roughly 7000 funds, many investment management firms are taking a hard look at upgrading existing infrastructure to better support or enter the market space. With more dollars flowing into hedge funds from the average investor through funds of funds and from institutions seeking greater returns for their investors, coupled with the more intense regulatory scrutiny, the industry is growing up and moving away from spreadsheets and the back of the napkin to far more sophisticated and structured solutions.

The growth in hedge funds has been quite remarkable. In the last five years alone, hedge fund assets have grown 260 percent, and in the last year, hedge fund assets have grown over 30 percent. Some predict the amount of hedge fund assets will exceed $1 trillion by the end of the year. Hedge fund assets are growing at a faster rate than mutual fund assets that invest in equity securities. As a result, hedge fund advisors have become significant participants in the securities markets, both as managers of assets and traders of securities. One report estimates that hedge funds represent approximately ten to twenty percent of equity trading volume in the United States. One article portrayed a single hedge fund advisor as responsible for an average of five percent of the daily trading volume of the

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Automating Corporate Actions Processing; Perspectives for Investment Managers

The Motivation for CAP Improvements

In 2004, Oxera (a European research house) published their findings in a DTCC sponsored study (http://www.dtcc.com/Publications/oxera.pdf) showing that fund management firms worldwide incur operational costs related to corporate actions processing of approximately €300-700 million. Of greater interest is Oxera's analysis that failures to interpret corporate action information correctly lead to sub-optimal trading decisions (e.g., in arbitrage strategies; struc-

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New York Stock Exchange (*SEC [Release No. IA-2333; File No. S7-30-04]*). Another reported that hedge funds dominate the market for convertible bonds. The argument as to whether the funds need to be regulated or whether large scale growth will homogenize the product class is a story for another day. The bottom line is that hedge funds have entered the mainstream, for good or bad, and many firms will now look to incorporate them into operations or risk losing assets and/or talent.

Traditional asset managers are looking hard and long at adding hedge funds for a couple of reasons. One is an effort to stop the brain drain they have been experiencing as they've been losing top talent to hedge funds. Another is preventing redemptions so as to retain assets fleeing from poor performance.

Management firms are taking numerous paths to enter the world of hedge funds. Firms are looking at starting up practices, buy-outs and fund of funds approaches in order to throw their hats in the ring. A quick browse of recent headlines shows quite a bit of activity. This past November, Affiliated Managers Group (AMG) purchased a stake in the Greenwich, CT-based hedge fund and quantitative firm, AQR Capital Management. AMG executives were quoted as saying that the firm had been analyzing opportunities for partnering with alternative investment managers for more than two years in a bid to diversify its cash flow. AMG opted to acquire a stake in AQR because acquisition tends to be the quickest way for traditional managers to get into the hedge fund game. "It's a very quick way to get a piece of the pie for a lot of firms out there," says John Van, CFO and Senior V.P. of Van Hedge Fund Advisors International. "Starting your own can take a good deal of time and there's no guarantee that it will work as well as some of the established firms that have been doing it for years." Van says that asset managers could also consider lifting out established hedge fund teams, or possibly partnering with hedge fund consultants to build and run their own hedge fund programs. Both options could likely take the same amount of time as a total acquisition to fit into a firm's product line, which he estimates could take between three to six months to get up and running. Other recent headlines include The California Public Employees' Retirement System's decision to double its allocation to hedge funds, a move that may send a signal to other institutional investors to jump in. (*FundFire, November 23, 2004*)

There's no denying that firms chase assets and hot products. Just as the managed accounts market space has expanded to include more of the masses, so too are hedge fund offerings. And while new regulations and filing rules have been enacted by the SEC to the chagrin of some, these new regulatory controls will have an overall positive impact on the growth of hedge funds.

On Oct. 26th 2004, the SEC decided to require hedge fund managers with assets in excess of $25 million to register under the Investment Advisors Act of 1940.

As registered products, hedge funds can go from being limited to 500 investors, for example, to an unlimited investor base. An additional benefit of the new regulations will be in opening up hedge funds' offerings to institutional clients on a broad scale.

Managers are looking for ways to integrate hedge fund operations, trading and support, into the rest of their operating model to gain efficiencies and gain control of their operations.

Sound familiar? STP is the goal of many managers looking to satisfy institutions and regulators concerned about operational risk and operational procedures.

Most hedge fund offerings tap into products very familiar to mutual fund managers, and so the veil of complexity or the unknown is in many cases misplaced. It's how the hedge funds invest that makes them a challenge. Hedge funds operate more like the sell-side of the investment industry; whereas mutual funds operate on the buy-side. A hedge fund typically uses a Prime Broker to execute its trades. A hedge fund firm with multiple strategies may need to use multiple Prime Brokers to execute trades; and with multiple brokers comes added software specifically tailored to the new asset class, a practice

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common on the sell-side.

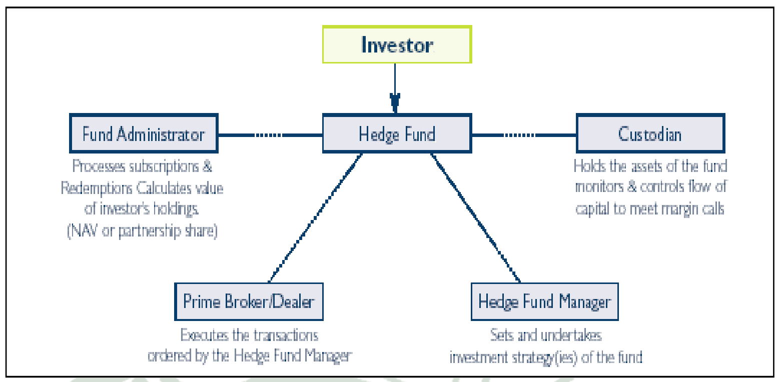
Given the growth to date and future projections, firms face critical decisions in choosing the right technology solutions for their operational model. At its core, the functions remain very analogous to the mutual fund industry:

- Post position changes
- Price positions
- Update cash
- Reconcile balances and accounts
- Strike a NAV

If only it were that easy. An enormous piece of the puzzle in hedge fund operations is the ability to properly manage risk. Risk management is dependent on a firm's ability to slice and dice its data in myriad ways. Data must be as up-to-date and accurate as possible in order to properly manage risk and also allow the investment teams to take full advantage of the markets. Therefore, at the core of it all, we find the portfolio management system and all of the applicable data flows in and out of the system. The obvious need to maintain accurate positions has not been lost on the industry. According to *Securities Industry News*, hedge fund automation continues to bring the front and back offices together in an effort to achieve seamless integration. In addition to providing ever-increasing sophistication of trading tools, systems are adding in-depth reporting, risk management, compliance features, along with greater transparency to the back office.

Whatever the reason, growth in assets under management, expanded offerings, regulation, implementing a viable solution and/or moving off your current Excel spreadsheets, requires a thorough analysis and documentation of your firm's specific requirements. Choosing the appropriate technology solutions, as an upgrade or new implementation, will depend upon the asset classes and trading strategies involved. Additionally, a more stable infrastructure is required to provide clients and prospects with the comfort of proper internal controls and credibility. Core functionality is similar across hedge products, but specific product strategies can impact final technology decisions. Knowing what questions to ask and how to define and deploy those requirements can be challenging.

Hedge Fund Players



Basic questioning needs to begin at both the operational and technical levels:

- Which asset classes and styles are currently being deployed and what are the firm's future plans? If fixed-income strategies are being employed, more sophisticated software will be required to handle the complex accounting.

- Will the fund be trading multi-currency assets? Will the fund have offshore money? The answers to these two questions will point the manager to a narrower set of solutions.

- What type of growth is anticipated: more assets and more trading volume vs. adding locations? If the fund is adding locations, a vendor that offers an ASP model may be an appropriate solution.

- Is the fund attempting to draw in institutional assets? If so, institutions will be looking for a robust operation where operational risk is mitigated by deployed technologies and up-to-date compliance capabilities.

- How much does the fund want to outsource? With regulation on the horizon, are the fund's compliance capabilities, operational proce-

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dures and reporting up to snuff? Is the fund's back-office transparent? It may make sense to outsource to a third-party provider that has these controls in place.

- How many Prime Brokers are currently being used? If a new asset class is being added, it may be time to add a Prime Broker and, rather than add more software to handle the expanded asset class, it may be time to look for a streamlined solution to handle the fund's book of business.
- How much does the firm want to manage technology vs. how much does the firm want to manage money?
- How much does the firm have to spend on a vendor solution to support trading and portfolio management? Initial license fees and implementation costs can be out of reach for a start-up firm.
- What are the existing system / data flows? Can the new solution be integrated into the technical architecture efficiently? How can the firm achieve a straight through processing environment?
- Does the infrastructure exist to support taking software in-house? The firm needs the right people to maintain its systems.
- What are the fund's anticipated volumes? Will the new solution scale?
- What technology platforms are being used? What technology platforms will be supported in the future? Does the solution offer a sound technology strategy?

A strategic plan for the fund's operational and technical infrastructure will develop by applying strict quantitative and qualitative analysis in a rigorous requirements-gathering phase. That phase should not only look at cost, but should take into account long-term growth plans, new regulations AND investor satisfaction.

Automating Corporate Actions Processing; Perspectives for Investment Managers

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turing of proprietary positions) that cost money managers anywhere from €1.6 to €8 billion globally per annum.

In recent engagements with asset managers and their custodial banks, *forward look, inc.* has also witnessed a range of financial consequences for CAP failures. For example :

- a money manager for a fund complex negotiates $3+ million in penalties from a custodian who missed processing a rights offer . . . notices were received electronically, but were being printed out and manually keyed into a spreadsheet for distribution to the bank's processing units (Using figures supplied by custodians, CityIQ reported that the average annual loss associated with corporate actions averaged $4 million in 2004. However, we have heard of an extreme value reported in one international bank's operational risk management database of $9+ million);
- flawed cash forecasts and FX activity for a money manager due to incorrect foreign cash dividend reporting . . . the problem was discovered when its operations manager suspected that "not enough money was being posted" even during the busy Japan / Korea dividend period in March-April;
- in the "nice problem to have" category : $1.1 million from six year old foreign tax reclaims that no one (neither the investment manager nor the custodian) knew where to book.

Last year, there were over one million corporate action events worldwide (exclusive of the three million plus fixed-rate interest payments and maturities). With the expected

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burst of M&A activity in 2005 and the growing trend of companies worldwide to "give back" to shareholders, the implicit probability of CAP errors is likewise increasing.

Industry Initiatives

The fundamental drive industry-wide is to reliably automate CAP. The first step in this process is to standardize the communication of transactions that support CAP workflows.

As with any industry initiative, there are many players involved in voicing the views and interests of their constituencies. At last count, we had the ISITC-IOA, DTCC, SIA, REDAC, RDUG, SWIFT and the SMPG's, G30, ISSA, plus all the local securities authorities in every developed market, weighing in on the standards issues. After several years and countless working group meetings, the ISO 15022 message standard is now the de-facto reference structure for corporate actions messages (for the latest version, go to http://www.swift.com/index.cfm?item_id=3030). By way of summary, the key message types are:

- MT 564 (& MT 568) Notifications (& extended narrative)
- MT 565 Instructions
- MT 566 Confirmations
- MT 567 Status and Processing Advice

Because of the breadth of corporate action scenarios and corresponding workflows, the generic nature of these MT 56(n) messages cannot satisfactorily address all the operational nuances that practitioners encounter. As a result, additional standards are being crafted that address specific corporate action events or perceived processing shortfalls. Most notable are :

- *Regulation M&A* is an SEC-driven mandate that outlines the requirements for the filing of tender offers and merger applications. Regulation M&A describes both filing methods and the data attributes required in the SEC filing. As an adjunct activity, the SIA seeks to clarify and strengthen the requirements by including a summary page of roughly 50+ mandatory data attributes for tender offers and mergers. This expanded proposal from the SIA is now in final filing status with the NY Bar Association, and a petition will subsequently be made to the SEC for a proposed rule change.

- Standards for the transmission and receipt of *liability notifications* to banks and broker-dealers are also being developed by the SIA and are the subject of a proposed rule change filed with the SEC this past December. The DTCC is already offering a communications tool which it piloted at the end of 2004 with over 30 firms.

- The SIA is also working on reducing the window for *stock loan recalls* from five to three days to align it with the settlement cycle. Furthermore, the SIA is looking to mandate usage of the DTCC Stock Loan Recall system as the common systems platform for transmitting the related notifications.

So Who's Doing What?

Exchanges. All the major stock exchanges, such as the London SE and Tokyo SE, are offering up scrubbed (validated) notices in ISO 15022 message formats. Other regional exchanges (e.g., Singapore) have recently announced similar services.

Depositories. Many depositories are evolving integrated settlement and custody information to flow through a single point of entry. Their customers have the capability to receive near-time information on new or updated notices; submit instructions; and view data in the context of other related information such as pending instructions, proceeds and balances. A good example is Clearstream's Corporate Action Service launched in 2004 and accessed via their CreationOnline information portal.

Industry Utilities. SWIFT, in its role as an ISO message registrar, has the most active presence. Surprisingly, Omgeo has not announced any initiatives in the corporate actions space even though it is well-poised to provide a service that would complement its traditional strengths in managing trade confirmations and allocations.

Custodians. Custodians are the

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most aggressive in terms of building out systems infrastructures for CAP (i.e., position and entitlement reconciliation; entitlement posting; and receivables and payments reconciliation). Even though significantly more press is associated with CAP automation efforts by exchanges, depositories and industry utilities, it is the quality and effectiveness of the custodian's automation efforts that will matter the most to the investment management community.

Application Vendors. XSP (Xcitek Solutions Plus) is the dominant CAP application vendor. In a 2004 survey by Celent Communications, XSP had approximately 40 clients, with Vermeg (a European software house) following with a distant 15. Other familiar names such as SmartStream, Heliograph, FTI and ADP/Wilco trail with less than 10 clients each at the time the Celent report was published.

Information Vendors. The primary information supplier in the North American market is DTC. For global events, Telekurs and FT Interactive Data are well-regarded sources. ActionsWatch (a product of Fidelity's ActionsXchange) plans to offer event data that is directly integrated into its customers' front-office trading platforms. Interestingly, this speaks clearly to the point Oxera made regarding fund managers' trading shortfalls due to improperly interpreted corporate actions.

CAP Strategies for Investment Managers

1) Quantify Your Risks

Money managers should catalogue their relative risk exposures attributable to CAP by:

- corporate action event type (e.g., a Dutch Auction vs. a Rights Offer)
- domestic vs. international (e.g., emerging markets)
- workflows (e.g., notifications vs. elections)
- by counterparty (e.g., a local custodian in an emerging market).

2) Prioritize Your Exposures

Typically, CAP automation for money managers should focus on the receipt of voluntary actions and the reporting of instructions. Even though voluntary events (and mandatory ones with options) represent only 15% of corporate action volumes, their complexity poses the largest risk, and as such, would be the best target for process improvement and automation.

What should the next priority be? Most likely, cash forecasting from foreign cash dividends.

Moreover, for those of you whose firms are subsidiaries of internationally active banks, incorporate Basel II considerations in these decision frameworks, particularly if AMA is the target methodology.

3) Offset Those Risks

forward look, inc.'s experience has been that a monolithic approach to resolving the hierarchy of CAP exposures

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(i.e., assuming a vendor 'package' or a custodian's 'black box' offering can resolve the bulk of CAP issues for an investment manager) yields less favorable outcomes than a more involved approach of integrating scrubbed data sources with a standards-compliant messaging platform and a robust accounting engine.

The critical feature for data vendor selection is the choice of an uncorrelated second source. Simply selecting a different re-distributor is a common mistake, and is no guarantee against 'false positives' (e.g., both sources agree to the details of an amended event even though the reality is different). Ask the information distributor where it sources its data and how it scrubs the details – using for example a specific instance of a high-risk event that your firm is familiar with.

For those managers who outsource their back-office operations, examine the custodian's messaging platform and accounting systems. They are the most important enablers in minimizing the 'information distance' between you and the corporate action issuer.

4) Budget

A preliminary rule of thumb for your ROI calculation is to baseline spending against the largest estimated annual loss due to CAP errors based on your firm's operating history.

At a more detailed level, map the functionality vs. integration and implementation costs for each of the following capabilities:

- receiving notifications
- identifying material differences in amended notices
- position and entitlement reconciliation
- entitlement calculation and posting
- communicating elections and revisions
- managing confirmations
- aligning accruals, receivables and payments

5) Set Your Expectations

Whoever is selling investment managers on *total* automation is providing naïve advice. A significant portion of the MT 56(n) messages is still composed of 'narratives' which are essentially free-text with a quasi-structure that is not amenable to codification and unaided machine processing (e.g., details on restrictions based on the holder's domicile). Moreover, increasing the extent of codification is not a 'silver bullet' due to the natural variations in the way counterparties construct and interpret structured messages. *forward look, inc.*'s research (http://www.forwardlook.com/fl_Client/FL_IndustryPaper_April2004.pdf) shows that rigorous standardization alone cannot deliver on the promise of data interoperability.

6) Wild Cards - Lastly, remember to manage 'vendor risk' – both direct and indirect (e.g., your custodian's). CityIQ foresees consolidation to occur rapidly over the next few years (especially as more players from the traditional STP and reference data solutions camps seek out revenues in the CAP arena). So choose a partner wisely

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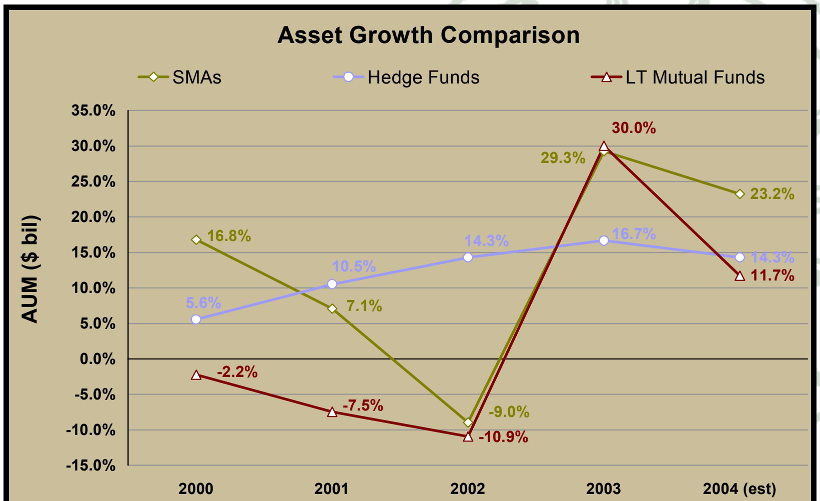
Highlights from the 2005 NICSA Operations Conference; Operational and Technical Impacts of New Products

Today's investors are looking past traditional investment products and are increasing their appetites for newer product offerings. Fund companies who are staying on top of their clients' demands are looking to expand their product lines. Venture's Larry Fleischman had the opportunity to moderate a panel of industry experts at the NICSA Annual Conference in Miami this past February, and the focus of the discussion included the driving force behind the growth of alternative investments, as well as the resulting operational and technical impacts that should be assessed when adding these new products.

Two of the more prominent new products firms are launching today are Hedge Funds and Separately Managed Accounts (SMAs). In four out of the last five years the percentage change in asset growth of traditional mutual funds has lagged behind both hedge funds and SMAs. Paul Schaffer of SEI noted, "not to worry, the sky is not falling. The growth needs to be seen in perspective as well, with traditional long term mutual funds having an estimated $5 + trillion in assets in 2004, verses hedge funds having an estimated $800 billion and SMAs having an estimated $615 billion."



Source: SEI investments NICSA Annual Conference 2/22/05

Why are fund companies looking to expand product lines? There are many reasons. Michael McGovern of Citigroup felt one reason is profit decay; manager fees and profitability are under constant pressure. Paul Schaffer stated another reason: "intermediaries are clamoring for increased customization. The old world was a fill-in-style box within a single package; the new world is utilizing multiple packages to implement sophisticated asset allocation models."

When a firm introduces a new product, it needs to assess the impacts from an operational and technical aspect for the front, middle and back offices. The panel highlighted some challenging areas to consider when introducing a new product:

- In the SMA world no sponsor standardization exists in trading, reconciliation or account processes resulting in the inability to scale.
- Fixed operating costs do not adjust to varying account and asset levels, which may limit profitability of a new product.

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(and obtain the right contractual terms around the relationship) to minimize the impacts from the inevitable mergers or potential exits. Celent estimates spending on CAP software solutions at $830 million between 2004 and 2007. This is not much in the relative scheme of securities industry IT spending - which means there probably isn't enough to go around for all these competing vendors.

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- Regulatory initiatives undertaken for hedge funds and being driven by institutional investors' need for transparency will alter the current landscape.
- Complicated new data flows demand integrated, streamlined approaches.
- Older portfolio modeling tools lack the ability to account for new products like hedge funds or SMAs.
- Many derivatives that make up hedge funds and some SMAs have a calculated value. It may be challenging to find an automated pricing feed for these securities.
- Manual workaround procedures to support new products can lead to processing errors, which in turn, can have financial implications to the firm.
- Compliance with the US government's anti-money-laundering regulations is sometimes difficult for US based firms that have non-US based investors in their hedge funds.

Michael McGovern summed up his advice for product innovation from a technological perspective in a slide he presented at the NICSA Conference:

<u>Solutions for Product Innovation</u>

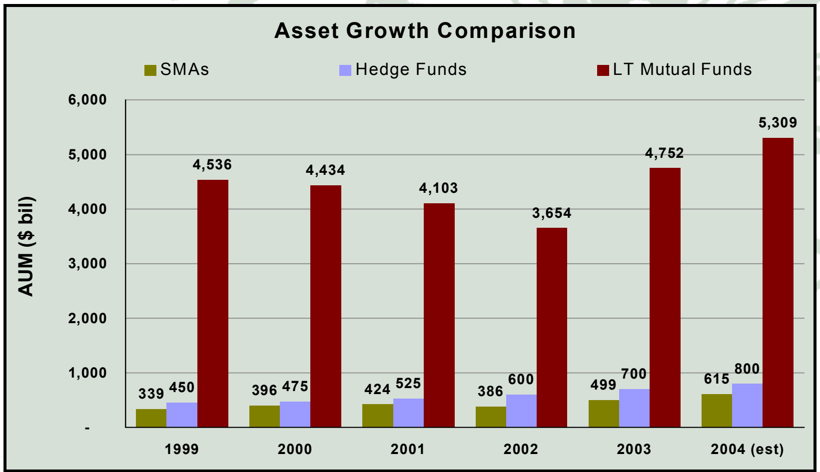
Systems integration focus: Embed consulting and systems integration skills in internal IT organizations

Leverage integration enabling technologies

- ***Business-to-Business Integration: Message oriented middleware***
- ***Flexibility: Self-describing XML messaging***
- ***Internet Technology: On-demand information delivery***

Integrate best-in-class commercial technologies with differentiating proprietary technology investments

While fund companies and service providers strive to accelerate the time to market of their new offerings, it will be imperative that they perform due diligence and identify potential pitfalls to insure long-term success with their new products. *Please see www.venturefsg.com for full slide presentation.*



Source: SEI investments NICSA Annual Conference 2/22/05

Event Calendar

We will be exhibiting, sponsoring, and/or speaking at the following industry tradeshows. If you plan on attending any of these events and would like to schedule a meeting to learn more about Venture, please contact Joanne Cavallaro at 781.932.7544.

NICSA Technology Conference	May 18-19, 2005	Boston, MA	Session Moderator	www.nicsa.org

About VENTURE Financial Systems Group, LTD.

Venture Financial Systems Group, LTD. is a consulting firm specifically focused on delivering business and technology solutions to the investment industry. Venture offers a wide range of consulting services including strategic planning, software and vendor service evaluations, system integration, customized software solutions, and implementation services. For more information, visit: www.venturefsg.com.

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