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VENTURE NAVIGATOR

VENTURE *Financial Systems Group, LTD.* | *www.venturefsg.com*

From the Editor

With the close of 2002, Venture Financial Systems Group, Ltd. marked its tenth anniversary. The company's initial focus was on the delivery of expert consulting services with a particular emphasis on the implementation and integration of fund accounting systems, a core competency still. Today Venture offers a wide range of consulting services and boasts a client base that includes many of the largest global investment management firms. On page 2, we talk to Tom Hart, a Venture client since 1992. We also highlight some of the important technology and investment changes introduced over the past decade and how Venture helped its clients formulate and implement investment system strategies to address those changes.

Today one of the fastest growing segments in the marketplace is the area of separately managed accounts. More money has been flowing into separately managed accounts than mutual funds over the past quarters. However, unlike the mutual fund industry where standard practices have taken hold, the separately managed accounts landscape is covered by disparate systems and workflows from vendors and sponsors alike. In this issue, Venture Managing Consultant, Vincent Manning will examine the operational challenges inherent in the managed account space and highlight some of the technology and operational changes required to allow managed account operations to scale and provide more customization

Also in this issue, we share our observations about Web Services, a topic considered over-hyped by some investment industry professionals, but yet an opportunity to solve many recurring business problems by others.

As always, we look forward to your feedback and suggestions for future issues.

Happy New Year!

Venture Celebrates Ten Years in Business

Venture Financial Systems Group, Ltd. recently marked its tenth anniversary. While smaller and lesser known in some circles, Venture has distinguished itself by offering boutique services and consistently demonstrating its ability to successfully deliver business and technology solutions to the investment community.

The company was started in 1992 by Doug Cohoon and Brian Luro as a niche firm focused on the delivery of expert consulting services with a particular emphasis on the implementation and integration of fund accounting systems, a core competency still. Today Venture offers a wide range of consulting services including strategic planning, software and vendor service evaluations, system integration, customized software solutions, and implementation services, and boasts a distinguished client base that includes many large global investment management firms.

According to Brian Luro, President, the foundation for success was set straight from the beginning. "We are very committed to ensuring that our clients are successful in the pursuit of their business objectives. Our business model can be characterized as High Say, High Do. We bring a combination of business knowledge and real-world experience to every project engagement."

Luro says the company goes beyond the role of being "simply another body shop." He adds, "We are sensitive to the fact that continuing advances in technology, and diversity in asset types and workflows require flexible approaches to IT initiatives. We understand the complexities of the implementation and integration process and are very cognizant of the issues that can occur along the way. As a result, we are able to identify opportunities to minimize risk and keep the project on course."

The strength of the company's business and technical expertise is a major factor in Venture's ongoing growth and success. "We don't rely on clients to supply training and technical support," Luro adds. "Our staff have managed investment operations groups and/or application development teams at leading financial services firms. They have been directly involved with investment system implementations and integrations, giving our team some of the most in-depth business and technical

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Celebrating Ten Years in Business (continued from page 1)

expertise in the industry."

Venture's first client was The Boston Company. Tom Hart, at The Boston Company at the time and now President of Advisor Technology Services, a Fidelity Investments Company, hired Venture to implement upgrades to its institutional accounting system. The system required several enhancements due to increased retail business creating a need to handle fixed income RIC processing on a daily basis.

According to Tom, "There are lots of recipes for success, as there are for failure. Having had the opportunity to work with both Doug and Brian for several years, I knew that their partnering to create Venture would be successful from the onset. Doug is an absolutely brilliant technician, with equally competent skills regarding his understanding of how financial service systems function. Brian too has tremendous knowledge of the financial services marketplace and is blessed with exceptional communication skills. The team that they have built and the experiences that they have gained make them formidable competitors in the services sector."

Over the past decade, the Venture team has worked with its ever-expanding client base on a wide range of initiatives and technologies. From mainframe and dumb terminals to client-server and PCs, from COBOL and PASCAL to C/C++, VB, and Java, and from character-based user-interfaces to GUIs, Venture technology professionals have worked, and still work with a broad variety of technology platforms. The explosive growth of the internet, the introduction of the Euro, the arrival of a new millennium, and more have been catalysts to many of the project initiatives that clients have solicited Venture's help on.

While the Venture team still supports clients on some of the same systems and technology platforms that it did a decade ago, it also supports many client systems initiatives that require in-depth experience with new technologies, investment instruments, enterprise applications, and business lines. Venture is cognizant of its clients' needs to balance existing well-understood technology with the need to adopt new technology that may be more effective in helping their organizations achieve new strategic goals. Recent project engagements have covered areas such as complex derivatives processing, investment data analysis, data warehouses, operations analysis for Separately Managed Accounts and 529 Plans, investment compliance, performance measurement, and much more. And, in 2002 Venture introduced its first product offering, RUP4STP, a plug-in to the Rational Unified Process to help clients assess existing workflows and architecture, and build a roadmap for a future STP operating model.

Joanne Cavallaro, Partner and Senior Vice President, notes, "Our clients' key business drivers remain consistent – reduce risks, cut costs, keep up with technology innovation, and increase client satisfaction. Venture's solid business foundation combined with our understanding and commitment to help our clients achieve their business goals, positions Venture for a successful future."

"The team that they have built and the experiences that they have gained make them formidable competitors in the services sector."
Tom Hart, Advisor Technology Services,
a Fidelity Investments Company

THANK YOU

Venture Financial Systems Group, LTD. thank their clients, business partners, and colleagues for their business and continued support over the past 10 years. Our success can be attributed to the fine relationships built between our firm, our clients, and our business partners in the investment community.

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Venture Timeline

1992 Brian Luro and Doug Cohoon form Venture Financial Systems Group, Ltd. Venture project engagements are focused on COBOL and VSAM systems residing on mainframes with character-based user interfaces. Tom Hart, formerly of The Boston Company, hires the first Venture team.

1993 Microsoft introduces Windows NT with support for 32-bit programming and long filenames.

1994 Mellon Bank has completed their acquisition of The Boston Company and Venture increases their exposure at Mellon to provide integration services across the bank.

1995 Venture hires Joanne Cavallaro. The Portfolio Accounting software business becomes increasingly competitive. Wall Street firms increasingly move to relational databases, client/server–based systems with graphical user interfaces. The FIX Committee is formed as Buy and Sell side firms rally behind a new protocol for sending and receiving equity trading information. Venture project engagements follow suit.

1996 The Internet celebrates its 25th Anniversary. The Information Superhighway arrives and the Netscape and Microsoft browser war begins. The industry is looking for opportunities to capitalize on data that is stored in-house in disparate systems. A number of clients engage Venture to develop repositories, data warehouses, and evaluate sources of market data.

1997 Venture becomes involved in a number of initiatives to automate processes in the back office, including fund reporting, portfolio accounting, fund valuation, and complex fund structures.

1998 XML 1.0 is announced. IRC Code 529 changes are enacted and the first 529 College Savings Plan is launched in the U.S. Venture is engaged to develop operational workflows and conduct system evaluations to support the new investment product. For mutual funds, investment compliance comes into focus and Venture commences work on compliance initiatives.

1999 Venture assists product providers and clients convert to the Euro. With Y2K just around the corner, everyone, including Venture, is testing. Venture provides resources to clients converting to Swift formats.

2000 Web-enabled applications are de rigueur and rightly so! The intranet makes its way into the front and back office and following suit, exciting new products from vendors such as Eagle and LatentZero are launched, attracting the attention of firms eager to increase operational efficiency and reduce risk. Venture commences large-scale system integration work for clients.

2001 As the economy changes, Venture's client base becomes increasingly active in trading derivative securities. Exposure due to accounting errors is greater as many applications cannot support these complex instruments. Venture works with a number of clients to implement proper accounting treatment and automate the trade and accounting process to reduce risk.

2002 Joanne Cavallaro named Partner and Senior Vice President of Venture. Venture enters into an alliance with Openpages®, Inc. a leading provider of enterprise content production solutions to deliver content production solutions to the financial services community. In a joint venture with Rambyte, Ltd., Venture launches their first product, RUP4STP™, a business modeling framework to help buy-side firms identify opportunities to realize greater operational efficiencies and reduce operational costs associated with manual and duplicated activities.

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Front and Back Office Challenges: Separately Managed Accounts

Quick. You need to add a new product to your portfolio management and trading applications. What do you do?

More often than not firms will try, and try again, to reconfigure existing systems to accommodate a new product or security offering. However, in the case of managed accounts, and in particular the newer multi-styled managed account offerings, the potential to successfully build out functionality is not great.

In fact, for firms to properly position themselves to operate efficiently and profitably in the managed accounts arena, they need to be prepared to invest in product-specific technology and services. The truer challenge facing everyone from broker/dealers to investment advisors to asset management firms is deciding on a platform that fits their current operations and future goals. With a myriad of products available to provide managed account functionality — from in-house solutions to ASPs to outsourcing solutions — firms face a daunting task in evaluating and selecting a product(s) with which to partner. However, even with seemingly high market entry barriers, management firms should not be ignoring managed accounts as an investment product offering.

Separately Managed Accounts – Investment accounts featuring customized offerings based on providing tax optimization and security restrictions on an individual basis (*a.k.a. Wealth Management, High Net Worth Accounts, Wrap Accounts*).

Multi-Style Managed Accounts – A fund of funds type of approach offering the same customization as in SMAs while spreading investments across multiple products (e.g., 50% Growth Fund, 40% International Fund, and 10% Fixed Income Fund).

A review of most industry conference agendas over the last year and heading into 2003 will undoubtedly refer to some aspect of managed accounts operations – the challenges, the risks, and/or the opportunities. And why not? Over the past few years, cash flows into managed accounts have experienced significant growth at the expense of mutual funds. A recent report indicated that while MF assets have grown at a five-year CAGR of 12% from 1996-2001, MA assets have grown at a five-year CAGR of 32% over the same period (source: Cerulli Associates). Similarly, a recent study by FRC showed that the ratio of MF assets to MA assets dropped from 15:1 in 1996 to near 9:1 in 2002 and is expected to drop to 5:1 by 2005.

Top 5 Broker/Dealers Control Over 70% of Market

	Market Share
Salomon Smith Barney	25.2
Merrill Lynch	23.1
UBS PaineWebber	9.6
Morgan Stanley	8.6
Prudential	5.4
All Others	28.1

However unbelievable it may be to some, especially given the current level of automation and standardization in the mutual fund industry and the ever increasing popularity of managed accounts, the managed accounts industry is riddled with disparate systems and lacks the simplest of standardization features. In order to achieve widespread market distribution, firms are forced to deal with multiple sponsor platforms or work with costly third party vendors (note: apart from direct distribution models, asset management firms have their products distributed through broker/dealers a.k.a. sponsors). With each of the top five sponsor firms operating on their own platform complete with unique interfaces and operating procedures, management firms are faced with the complex task of managing multiple relationships, systems and interfaces, and operational procedures. The bottom line is that given the current operational state of the managed accounts industry, firms entering the market must be willing to absorb high start-up costs and have a strong long-term commitment.

While acknowledging the complexities firms face, it is possible to effectively position yourself for entrance into the managed accounts space. The first thing a firm must do is decide on a platform for managing its managed account practice. For asset managers, that platform must focus on five key functional areas - account management, portfolio management, trading, reconciliation, and performance reporting. While none of the current market solutions provide complete coverage for every operational requirement, using these five functional areas as requirements drivers will help firms properly assess each offering. Once a platform is selected, additional add-on functionality (e.g., tax optimization, data/account aggregation, and rebalancing packages) can be assessed in

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Separately Managed Accounts (continued)

light of existing gaps in the chosen platform with regards to firm-specific requirements.

In deciding on an operating platform (assuming firms do not want to jury-rig existing systems or maintain separate relationships with each sponsor), there are two main options – go direct with an applications provider, bringing the product in-house or used via an ASP model, or outsource. An alternative option that has been somewhat popular is to use standard portfolio accounting systems and trading systems (e.g., Advent Software and INDATA® products) as front-ends with a managed accounts solution on the backend to handle all sponsor interfaces. Going forward, this type of approach will be more difficult since systems like Advent's Axys® and Moxy® or INDATA's I.M.S. for Windows® are not properly built to handle multi-style accounts.

Putting hybrid systems aside, the number of potential solutions is currently somewhat limited. The well-known market leader is CheckFree® APL™. CheckFree maintains nearly 70% of the current managed accounts solutions market. However, CheckFree's market share is as much as, if not more of, a factor of being first to market than best in market. Other solutions providers, such as DST International and Integrated Decision Systems, offer similar functionality on newer technology platforms than CheckFree and continue to grow market share. Because of the growing number of solutions, and potential add-ons from accompanying firms, portfolio management and trading functionality will end up being pretty similar on most platforms almost to the point of being negated as a buying decision.

Today one of the major drivers behind selecting a solutions provider is sponsor connectivity. Managed accounts require unique interfaces with each sponsor. Therefore, sponsor connectivity is essential for the longevity of any solution and managed accounts program.

While the DTCC is trying to build momentum for a mutual funds-like solution for the industry, standardization remains a distant hope. With the major sponsors each running on their own systems, there is little to no incentive for them to sign on to the DTCC's solution. As fast as the industry and its players seem to be evolving, industry standardization remains a long-term goal at best.

The decision to outsource will initially come down to a firm's ability to absorb the additional workflows into its operations. If an initial startup can leverage existing staff resources with minimal new hires, then a strong case could probably be made for taking the operations in-house. However, it may be more advantageous to outsource operations in order to minimize the internal impact and allow the new business line time to establish itself. One benefit of outsourcing is that it can allow firms to focus on core competencies early on which is essential in establishing the new product(s) and it also allows firms the ability to control internal growth. Over time operational pieces can be brought back in-house to regain control and overall management. As previously mentioned, most MF firms are not properly equipped, from a personnel and systems perspective, to scale operations quickly to properly manage all aspects of managed accounts.

Before making a decision on outsourcing, it is recommended that firms conduct the proper due diligence on the system providers. The four major outsource providers use two of the leading systems solutions, APL and DST, as their platform. Therefore, by talking directly with the systems' providers, firms are able to better understand how the system is marketed and positioned within the industry. This will provide beneficial insight when talking to outsource providers with regards to their solutions and services.

While the new cash flows are an obvious attraction, it is also clear that a decision to enter the managed accounts space requires significant analysis and commitment. With most break-even estimates running at 5 years and requiring upwards of 5,000 accounts, depending on average asset size, the high start-up costs require management to make a long-term commitment to managed accounts. That commitment must start with a thor-

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Front and Back Office Challenges: Separately Managed Accounts (continued from page 5)

ough examination of a firm's true requirements.

There are many functional and operational requirements that must be assessed when deciding on an operational infrastructure. Just as with the products themselves, managed account operations are not best served with off-the-shelf cookie cutter solutions. Each firm's operational requirements will be different based on its available products, target market, available support, and long-term plans.
Managed accounts offer a firm the ability to further differentiate itself to its clients. Managed accounts also represent another step towards further customization of financial services to the mass-market. From mutual fund wraps to separately managed accounts and now to multi-style managed accounts, investment management firms are continuing the drive towards convergence of products and services in an effort to gather assets. With the proper analysis and due diligence, a strong foundation can be established to support those efforts.

For a checklist of the functional and operational requirements that must be assessed when deciding on an operational infrastructure for separately managed accounts, download our *Managed Accounts Solutions: Operational Due Diligence* paper via our web site at http://www.venturefsg.com/publications.

IBM to Acquire Rational

IBM recently announced plans to buy the application development tools vendor Rational Software for $2.1 billion in cash.

In a prepared statement, IBM said: "IBM now will provide a complete software development environment for companies that want to integrate their business processes and software infrastructure across their companies, with suppliers, customers and employees... The acquisition is an important element of IBM's e-business on demand strategy."

For Venture, the buyout signifies an exciting opportunity to further build upon RUP4STP™ sales. The RUP4STP™ business modeling framework helps firms identify opportunities to realize greater operational efficiencies and reduce operational costs associated with manual and duplicated activities.
IBM's world-class marketing exposure throughout the Financial Services world will provide significant leverage and help accelerate Venture's penetration of RUP4STP™ into that space. In addition, IBM Global Services provides industry leadership with their breadth of technical knowledge and is viewed as an expert in the latest technical architectures available today. IBM recognizes the importance of, as well as the opportunity for, STP in Financial Services.

Venture expects that RUP4STP™ will be viewed as a valuable addition to IBM partner offerings in its efforts to leverage sales and services to this industry. Venture is confident that the acquisition will result in many benefits to both Rational and RUP4STP™ customers.

Separately Managed Accounts Discussion Panel At NICSA 2003 Technology Conference

NICSA
THE NATIONAL INVESTMENT COMPANY SERVICE ASSOCIATION

Find out more about the technological challenges associated with managed accounts! Vincent Manning will be moderating a discussion panel at the 2003 NICSA Technology Conference on April 30, 2003.

The session will feature expert industry analysis from investment manager and service provider representatives. Industry panelists will each speak on the complex task of managing multiple relationships, operational procedures, and systems and interfaces. Service providers will provide additional perspective on the challenges of bringing standardization to the industry and how technology is changing this rapidly evolving market segment.

Topics to be discussed will include:

- Establishing a Managed Accounts Platform
    - Build vs. Buy vs. Outsource
- Data and Communication Standards
- Emergence and Impact of Multi-Style Portfolios
- Trading and Clearing Facilities
- Market Evolution

See http://www.nicsa.org/ for a full conference and exhibition agenda.

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A Web Services Primer

Web Services has become one of the most talked about trends in enterprise technology. What is all the hype about? How and where can Web Services add value? Moreover, just what is Web Services? Let's start with the latter.

Broadly defined, a Web service is software module wrapped inside a specific set of Internet communications protocols and can run over the Internet. In order for the Web service to be run, it needs to be described in detail so that other programs can understand what it is and how to connect to it. It is described using XML (Extensible Markup Language). The Web service can be accessed over any TCP/IP network using the SOAP standard for integration, the WSDL standard for self-description, and the UDDI standard for registry and discovery within a public or private directory. The column on the right explains these acronyms in more detail.

Web Services is based on the principle of a service-oriented architecture. A service-oriented architecture enables the broader use of existing applications by creating services that can be re-used across the enterprise. This minimizes the need to build, buy or rewrite code each time a new business service is required or each time a business process is modified. Instead, the focus shifts to surfacing functionality that already exists in internal applications or vendor-provided components and applications and re-using that functionality as a new service. A firm can use Web Services to tap into just part of an enterprise level application without having to deconstruct the entire application. For example, using Web Services, a Yield Calculator module of a portfolio management system could be exposed as a standards-based Web service that could be accessed from any system.

Integration is the fundamental issue that Web Services addresses. Web Services are tools that enable businesses to efficiently and effectively integrate internal applications and share information and business logic across the enterprise.

Some of the potential advantages of Web Services include:

- Re-use of existing systems
- Sharing of information between applications
- Dynamic building of business procedures within disparate environments
- Fairly easy development.

Some of the current limitations and caveats with Web Services include:

- Interoperability and security standards are still evolving. To that end, standards groups, consisting of vendors and users have been established to define the basic specifications for standards, such as XML and UDDI, to facilitate the flow of information across platforms and organizations.
- A collaborative approach and development model are required so that vendors and firms can share and rely on applications that sit outside their domain and control.
- Revenue models (business terms and conditions, responsibilities, and liabilities) need to be established so that firms can take advantage of the interoperability offered by Web Services.

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Web Services: Are You Buzzword Compliant ?

The following Web Services technologies are used together in interoperable manner to compose a Web service:

Messaging – the exchange of protocol elements, usually over a network, to effect a Web service. Web Services messaging uses:

- **XML** (Extensible Markup Language) – generalized language to describe and contain data
- **SOAP** (Simple Object Access Protocol) – a protocol for sending XML messages to allow disparate applications to exchange operating data and to interoperate
- **HTTP** (Hypertext Transfer Protocol) – a standard protocol to communicate SOAP requests between a web browser and web server

Description – details about the messages associated with a Web service, along with implementation details. **WSDL** (Web Services Description Language) defines an XML-based structure for describing a Web service.

Discovery – metadata (data about data) that enables the advertisement of a Web service's capabilities. **UDDI** (Universal Description, Discover, and Integration) is a system allowing service providers to register and describe their services and users to search for them. UDDI consists of three parts:

- **W**hite Pages – contact information about the company that developed the Web service
- **Y**ellow Pages – organizes services by business category, industry, location, etc.
- **G**reen Pages – how to do e-commerce with the particular business offering services

Security – mechanisms that provide integrity, privacy, authentication, and authorization functions.

The two Web Services development frameworks from vendors most often discussed are:

- **.NET** – Microsoft's offering – write in any language, but run on Windows
- **J2EE** – write in Java, but run on any platform.

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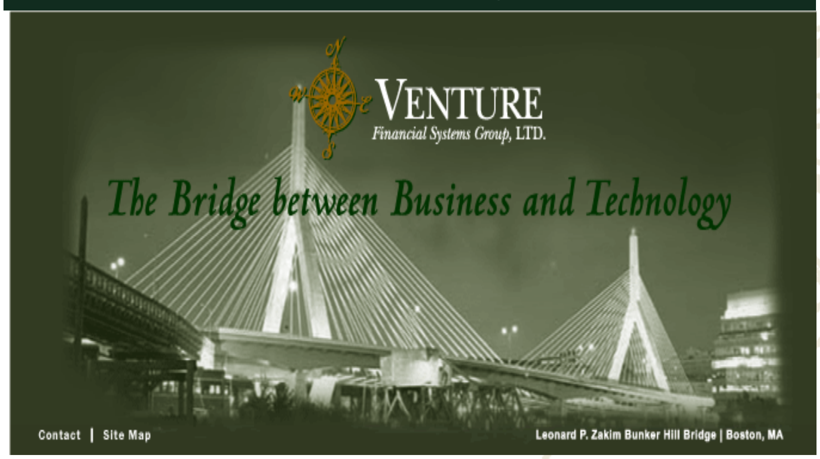
Web Services Primer (continued from page 7)

Today in the risk-conscious investment industry, Web Services is generally restricted to use within the corporate firewall and work is primarily focused on establishing the foundations for Web Services due to the aforementioned limitations.

Web Services is likely to be adopted in a staged fashion where in the first phase, Web Services is leveraged to ease software integration via XML standards, followed by a second wave wherein Web Services will facilitate new software development by combining homegrown and vendor provided components. Finally, Web Services will make it easier for firms to provide software as a service to outside business partners.

There is much potential for Web Services, but perhaps some lofty expectations that might not be fully realized. However, where Web Services do succeed, the result will be a dramatic conservation of development resources and much deeper integration of systems and components than is currently available across all systems connected to the internet.

New VENTURE Web Site coming in February 2003!



Industry Hot Topics

529 Plans. What's the buzz about? The growing 529 market has administrators, developers, and sales teams trying to sort out this very question. Should it run like a 401(k) plan or a retail mutual fund product? Can it run on a proprietary system or should it be a standalone system? Should it be outsourced or run in-house? 529 plans present many unique operational challenges. Lots of questions, lots of issues, and a race to gain market share in this increasingly competitive environment.

Check the next Venture NAVIGATOR for information regarding the current landscape of the education 529 markets and the administrative and operational challenges that 529 plans present.

Your Suggestions Please…

Are you pleased with results of a recent or current engagement with Venture staff and interested in sharing your experiences with others? Submit your suggestions to Annmarie Rogers via phone at 781.932.7544 or via email at arogers@venturefsg.com. Articles and/or interviews selected for publication will be entered into a drawing for a $100 American Express Gift Certificate.

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 or get a product demonstration of RUP4STP, please contact us at 781.932.7544.

NICSA Technology Conference	April 30—May 1, 2003	Boston.,MA	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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