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360° Financial Product Views: Bi-Directional Client Content & Data for Next-Generation Financial Services

A CDI Institute White Paper

“IT organizations of Global financial services providers (FSPs) must add product information pipelines capable of integrating both structured (database) and unstructured (text) to their 2004/05 shopping list.

As competitive market requirements mandate attention to master data synchronization of FSP product info, the build-out of such an IT infrastructure must address the need to maximize efficiency within the FSP’s product information distribution function – while improving the overall quality of services offered (completeness, timeliness, accuracy).

The accelerating requirement is to provide an efficient infrastructure of systems and business processes to support these next-generation product information functions. Additionally, there is potential for enhancing efficiency within the processes by increasing productivity at both the Global and Regional level through shared systems and processes, at the same time by scaling up the overall capacity of the product information pipeline functions.”



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Executive Summary

In a recent KMPG landmark study “Revolutionary Shifts, Evolutionary Responses: Global Investment Management in the 2000s” the findings suggest that *“there are fundamental choices to be made: either go global or become an effective niche player. It is clear that some firms are positioned to ride out the storm and succeed in the long-term. The rest need to change their culture and business model or merge or fail.”*

Also recently, in a 2004 independent research project entitled “The Future Belongs to the Efficient”, Citisoft researched problems and issues faced by investment management Sales and Marketing departments concerning product information distribution. The report highlighted *“an increasing realisation that product distribution processes currently in place are not sufficiently scalable and robust to enable organisations to cope with anticipated future demands in an increasingly globalised and competitive operating environment”*.

Final services is currently a non-scalable business wherein the lack of processes and systems on the distribution side of the business is an inhibiting factor to growth. After years of torrid growth, the financial services provider (FSP) industry underwent tumultuous change during 2000-03, marked by accelerating consolidation and increasing regulation. This was in addition to increasingly cautious clients who demanded increased visibility and faster time-to-report on financial product performance. During 2004-05, market-leading asset managers will look to “360° financial product views” for clients, channels and management via the integration and management of all product information (both structured databases and unstructured text) as a competitive differentiator in the rapidly reshaping Global financial services markets. Enterprise information integration (EII) frameworks based on service-oriented architectures and Web Services will be vital to the provisioning of “product information pipelines”. Clearly, such major IT infrastructure initiatives must pass the same level of corporate IT scrutiny and oversight as did similar initiatives for Y2K mitigation, enterprise resource planning (ERP) and customer relationship management (CRM) migrations.

Differences in scale between asset management firms are causing them to adopt strategies to improve distribution of product information where all suffer from the common issues related to manual processes and poor data quality. Large asset management firms are looking for economies of scale to maximize the leverage of their Global brand. Smaller or niche product providers are looking to get product to market rapidly with a minimum of effort. In the middle are mid-sized firms struggling to retain market share who must focus on both customer service and

excellence in quality. Furthermore, in merger situations it is vital for the acquiring firm to be able to leverage new “financial product” manufacturing capability into existing distribution channels.

Industry leaders in the fiercely competitive financial services markets need to:

- Beat the competition by providing financial product information that clearly differentiates in a buyers market.
- Enhance customer service via customisation of material on a localised basis.
- Improve efficiency, quality and decision making on localised basis by sharing and reusing knowledge on a Global basis.
- Increase levels of regulatory compliance and financial transparency via traceability and disclosure controls on a global basis.

Furthermore, most large asset management firms are looking to see how the bulk of traditionally high-cost activities (e.g., RFI and RFP creation) can be moved to countries with a low cost of operation (research, analysis, etc.) but be available on a Global basis for local customisation.

The notion of “straight through distribution” for near-real time management of financial product information as a business capability resonates with business management within asset management firms; correspondingly, IT management within such firms look toward a “product information pipeline” as the technology platform that combines analytics, data warehousing, content management, document production, and XML relationship management in an EII framework. Furthermore, nascent best-of-breed solutions are coming to market which are business-led and which enable new market opportunities, address new regulatory requirements, and cut costs of distribution. In contrast to previous infrastructure attempts, the next generation “product information pipeline” solutions have additional IT advantages due to these strengths:

- Better approach than those built on pure content management or data warehouses, because “straight through distribution” of financial services product info requires a combination of both data and content
- Complementary to CRM and customer data integration (CDI) due to strong built-in capabilities for data model and business process (work flow) compatibilities
- Provides traceability from source to destination of product information by treating the full lifecycle of such financial services “product” creation as a continuous pipeline rather than a discrete manufacturing process

In summary, whereas CRM may be considered “inside looking out”, in contrast a financial services product information pipeline (PIP) is “outside looking in”. FSPs know that it is difficult or even impossible to forecast when a wholesale or institutional client is likely to churn. Instead, FSPs must concentrate on the “performance” of their financial “products” – and especially focus on how much communication is provided about said “performance”. That singular issue is key to keeping and growing client bases – and key to enabling an “open architecture” banking platform for the next generation of asset management banking software.

Business Imperatives

The financial services market environment is changing as more and more retail clients are becoming institutional-like and vice versa. Indeed, the selection process has become much more formalized and streamlined with an audit trail increasingly required as to why those funds and company were selected. Clearly, more traceability or auditability are needed by clients even as more requests for proposals (RFPs) are being requested. This in turn creates insatiable demands on the distributor side to bi-directionally feed current product communication – e.g., Web site, CAD forms – which in turn require a level of customization and detail in context of RFPs and RFIs which is best resolved by looking at way institutional side solves the same problem.

The main business driver in the financial services landscape is changing as client sophistication and the product selection process (such as funds) needs to become much more industrialized. Clearly, the need to scale with rising volumes is more important than merely driving costs down. Better service and increasing quality is therefore the main business driver and not costs. In fact, a lot of the same information content about the fund manager’s “products” could be used between multiple channels – for example retail and institutional – but is not done so today.

As cited earlier in the Citisoft 2003 independent research project entitled “The Future Belongs to the Efficient”, another key business driver is “scalability of the process”.

The impact of scalability to either drive profits or destroy value is vitally important Not just because of new revenue via higher volumes but also to retain management of financial assets via level-of-service quality expectations, product tailoring and customisation, etc.

Additionally, “repeatability/reliability of product information” is a critical business driver. Without a formal service level agreement (SLA) between clients, channels, distributors, and the asset manager, service devolves into a more or less “best effort”. A main driver is the availability of data and ability to provide to the right

**Figure 1 —
Key Business Benefits for FSP of
“Product Information Pipeline”**

- Enhanced client reporting
- Improved timeliness
- Improved depth of product information (consultant support, consultant RFI responses, RFPs, fund fact sheets)
- Enhanced customer servicing via e-channel management
- Improved revenue generation opportunities
- Enhanced executive management transparency into risk management (sales pipeline info)
- Increased efficiency within Global Distribution functions (removing duplicated business processes, and improving the speed and accuracy of key activities)
- Improved business retention rates across global markets, product segments and business channels

channel at the right time. Asset managers have been able to get away with their current poor processes because entire industry is so bad. This could provide compelling market advantage in the long run.

Therefore there is an opportunity in leading asset management firms to standardize the format for interchange of information despite some of the ongoing XML attempts. Clearly, standards in inter-FSP communications need to be standardized. Note that despite the proliferation of XML dialects, there remains no standardized system or industry standard format to exchange such information. While many industries (especially commoditized industries) look to drive costs out of the supply chain through information integration, with asset management firms this “information supply chain” is the collation and distribution of financial product information. Unfortunately this is not seen as terribly critical in the eyes of management although it has a tremendous impact on the profitability of the asset management firm.

Lastly, FSP product information management applications remain too costly to develop from scratch and reflects the overall trend towards purchased application packages”. As well, such composite applications remain too costly to integrate with in-house applications, as well as customise and maintain.

Technical Challenges

The typical fund manager has invested heavily in enterprise application solutions (e.g., both in-house and purchased OLTP and accounting systems) yet remains frustrated by an inability to receive aggregated, timely information from operational systems. Most asset managers attempting to implement a 360° view of the product (or supplier, or client) are blocked by a common problem: *How can they integrate analytical and operational data and content that resides in multiple proprietary systems and across discrete front-office applications, while providing a unified real-time view of client and product information across all these systems?* How can the Global asset management firm obtain a universal view of key risk indicators across an increasingly virtual business-to-business supply chain wherein mega asset managers repackage, sell and service each other's "financial product"

offerings? The challenge heretofore has been that the creation of an "integrated architecture" that solves these problems has been very expensive. Especially telling is the observation that such systems have attempted to own too much of the problem, i.e., *where does the content management system end and where does the structured data management start?*

Enterprise Application Integration (EAI). Within asset management firms, EAI solutions often begin as limited project-specific initiatives – e.g., designed to link a key purchased package application to an in-house legacy application. Most funds manager's IT organisations have adopted various EAI technologies (messaging, integration servers, and even business process management [BPM]) in an attempt to solve such integration problems. Although these technologies can simplify and improve much about the way integration is performed "internally" within the business, significant design, organizational, and management issues contribute to the inflexibility and high costs of integration via EAI technologies. For most asset management firms, an EAI solution will not provide the "external" flexibility required to partner with other asset management firms in their market-driven quest to become supermarket resellers of each other's financial products. Given the

**Figure 2 —
Overview of Key IT Trends & Standards
Required for Due Diligence**

- Enterprise application integration (EAI)
- Enterprise information integration (EII)
- Customer data integration (CDI)
- Content management
- Enterprise metadata modelling
- Mega vendor master data
- MS Office integration
- Portal integration
- Service-oriented architecture (SOA), Web Services & XML
- Workflow/BPM (e.g., BPEL4WS)
- Java
- Analytical APIs (e.g., ANSI SQL 99 for OLAP, PMML, XPath/XQuery)
- WebDAV
- Extreme scalability

importance of Java to asset management firms, Java Specification Request 914 (JSR 914) focuses on JMS (Java Message Service). JMS is a set of interfaces and associated semantics that define how a JMS client accesses the facilities of an enterprise messaging product using a messaging standard defined by Sun Microsystems, Oracle, IBM, and other vendors.

Enterprise Information Integration (EII). By 2005/06, market-leading asset management firms must be able to react intelligently and instantly to changing client and product information via near real-time EII (“T+0”). Technology infrastructure solutions range from semi-batch analytical data warehouses to near-real-time EII engines. Per universal IT experience, such EII infrastructure cannot cope with the wide spectrum of dynamic information required across the FSP enterprise because current systems are designed to manage both unstructured content (text) and structured data (financial databases) – but not within the same application or user interface. During 2004/05, companies implementing EII technology strategies must confront their inability to provision cross-application data integration, especially client and financial product data integration and synchronization. Most Global asset managers have built out a very large scale and fairly sophisticated EII middleware infrastructure that unfortunately becomes brittle and inflexible early in its life cycle due to lack of innate support for the more contemporary IT architectures of Web Services and service-oriented architectures (see glossary). In any case, purchase and deployment of any future-looking framework to support 360° product and client views must accommodate the bespoke endeavours of previous IT brain trusts – i.e., co-exist with and leverage capabilities of current infrastructure based upon on BEA, IBM DB2 Information Integrator, SeeBeyond, Tibco, etc. middleware. And not just that of the major middleware vendors, but also provide out-of-the-box compatible support for the mega application package vendors soon-to-be-dominant (beyond endemic) middleware frameworks (e.g., Oracle’s 10gAS, SAP’s NetWeaver, Siebel’s UAN, et al.). The bottom line is that EII cannot be a “straight through process” due to the large amount of information that requires data cleansing and rationalisation – and which needs to be performed within the context of the specific asset management firm’s internal business processes.

Customer Data Integration (CDI). The CDI market is comprised of process and technology solutions for recognizing a customer at any touch-point — while aggregating accurate, up-to-date knowledge about that client and delivering it in an actionable form “just in time” to touch-points. Such CDI technology frameworks are increasingly based on a service-oriented architecture (SOA) to provide enterprise-wide infrastructure for managing and harmonizing master “client data” such as: customers, products, suppliers, and employees. A PIP is the complement of CDI by employing the same technologies centred around “product”

– much more than CRM is required. During 2004/05, Web Services and related XML frameworks will provide much of the infrastructure to aggregate client information on the fly (online but not necessarily real time). In the process, they will substantially reduce the costs of integration while at the same time offering potential for new breakthrough applications such as “product information pipelines” for fund managers. By 2005/06, standardized client and product metadata (on an industry-specific basis) will facilitate integration of real-time, online, and offline applications as the software industry increasingly agrees to be governed by XML specifications that address client/employee/partner/supplier data (e.g., ebXML as in Electronic Business using eXtensible Markup Language).

Content Management. Many asset management firms have spent in excess of €10MM in building a system centred on content management (using products such as Documentum, FileNet, or IBM’s Content Manager), yet have severely limited the future role of such investments to support the product information pipeline concept because they have no data model for the most important elements such as constraints and characteristics of a “product”. Given the nature of both structured and unstructured information in an asset management application, it is critical that the Content Repository leverage standards such as JSR 170 (the API related to Content Repository for Java technology). A Content Repository is a high-level information management system that is a superset of traditional data repositories. A content repository implements "content services" such as: author based versioning, full textual searching, fine grained access control, content categorization and content event monitoring. It is these "content services" that differentiate a Content Repository from a Data Repository. Asset management firms should mandate that their selected Content Management solutions utilise JSR 170 to access content repositories in Java independently of implementation.

Enterprise Metadata Modelling. By 2005/06, metadata standards such as the Object Management Group’s Meta Object Facility (MOF) facility. MOF bridges the gap between dissimilar metadata models by providing a common basis for meta models. If two different meta models are both MOF-conformant, then models based on them can reside in the same repository. A product information pipeline can provide the infrastructure such that most metadata standards will work because it is based on XML. Such infrastructure/platform should not want to own all the final representation of the information but rather consolidate and prepare info that the fund management applications need. The aim is for the business user to be responsible for as much of the configuration as possible – therefore the underlying metadata must be up to the challenge. A next-generation asset management platform must organise and classify product information whether it is stored regardless of the underlying metadata model(s). Furthermore, such product information directories/repositories must also manage product data, client

data, analytics, content and references to external data systems to support the rich information asset management firms require – in addition to providing a single, consolidated reference for financial product master information (a.k.a. “book of record”).

Mega Vendor Master Data. Many organizations will have one of the “gang of 4” mega application package vendors’ products installed on an enterprise basis – e.g., Oracle, PeopleSoft, SAP, or Siebel. It is unlikely at present that Global asset management firms will deploy more than one of these packages as an enterprise standard, however, Siebel in particular has made significant headway selling among the global banking industry – primarily in retail banking. Each of these mega application package vendors has invested heavily in their data models, messaging infrastructures, and other EAI middleware technologies to provide a hub approach or federated view of multiple data sources – centred, however, on that vendor’s data models and application process rules. Each of these mega vendors is determined to own the facilities to manage such “book of record” or “system of record” for such master data. For example, Oracle has its Customer Data Hub, PeopleSoft is readying to acquire and re-package such technologies, SAP has its Master Data Management product, and Siebel its Universal Customer Master. The notion of a “hub” implies a single point of reference for all info but not necessarily a repository for the data itself. Such a hub knows where the master data resides in order to get the most accurate representation of that information. Furthermore, lots of applications may contain the actual master data in the hub but that is not a precondition. For example, the Oracle Customer Data Hub environment can manage all the compliance, disclosure and traceability of such master information. As a corollary, in a bi-modal asset management application (containing both structured and unstructured information), next-generation platforms such as Activiti would be the master process hub rather than physical data hub. The data and process models determine where actual integration of structured and unstructured info occurs. Such data models’ key features should include the ability to model relationships among partners, employees, clients, and suppliers, as well as enable an agglomerated view of the client data through system-wide, unique key indexing (combined with inline data quality processes for cleansing and matching, etc.). The model should also include business workflow support (e.g., process models) to coordinate within and between enterprise applications to manage and integrate client data processes between front-office and back-office processes (e.g., Siebel, SAP). The ability to update (or roll back) across multiple levels of enterprise applications must be provided to manage enterprise product master information across the entire financial product life cycle.

MS Office Integration. This is extremely important because this is the world that asset management professionals work in. Two of the most widely-used data management tools in the financial services world include MS Excel and MS

Access – two of the most important communication tools are MS Word and PowerPoint. While often disdained by formal IT organizations, such tools all too often constitute the fabric of the informal information pipeline that heretofore comprised the flow of asset managers' product information. Therefore it is critical for banking platforms to both incorporate these bespoke information sources as well as accommodate the tools-of-choice by the asset management professional when building out the infrastructure for the next generation of "product information pipelines". Among the benefits of including MS Office tools within the framework, include cost reductions by reusing information and reducing the need for cross-checking. These MS Office tools also provide transparency and clarity on investment products by providing analysis and commentary to product information.

Portal Integration. In next-generation financial services applications, the "portlet" and user interface/display model is critical. Key portlet models include Microsoft's Sharepoint and JSR 168. Both management views and dashboards must support these standards and feed into portal frameworks such as Sharepoint, Vignette's epicentric and IBM's Jetspeed. Management views must include an overview of what is happening with the product information distribution process in addition to providing metrics on the distribution process, product sales, and efficiency (a.k.a. business performance management or corporate performance management).

Service-Oriented Architecture, Web Services, and XML. Businesses often are challenged to get the most value out of their service-oriented architectural investments. Whether they are implementing a project-specific EAI solution, or developing an enterprise-wide service-oriented architecture (SOA), IT organisations find it a difficult task to create an architecture that preserves the loose coupling and also enables the organization to leverage Web Services. The most significant challenge of creating an SOA typically is not the technology used to expose the services, but the processes and organizational structures that are associated with those services. Creating an SOA requires a commitment to a new set of architectural principles, processes, and responsibilities. These principles and processes are most often introduced into the organization as part of a Web Services initiative.

Web Services promise to simplify many product information integration tasks. This benefit is assumed to be especially prevalent for external integration (in contrast to EAI capabilities which are primarily targeted at internal integration of application subsystems). However, many of these notions will be difficult to achieve without a highly flexible execution framework for creating and deploying enterprise process abstractions. New interfaces need to be defined for existing systems and their components, new technology for accessing these components must be introduced, and new life-cycle processes for these components must be defined and automated. Next-generation asset management platforms such as the

Activiti ProductHub make extensive use of Web Services within an SOA to both link the world's of structured and unstructured data as well link internal applications with those of external partners.

XML can be an enabler of channel integration for an asset manager's "product information pipeline", because it allows a single data source to be used across various channels, each with its own presentation requirements. Furthermore, asset management firms can now provision the right amount of capabilities via Web Services and XML and can now work with more standard interfaces that are inherently more flexible. Furthermore, the IT organizations of fund managers can now build out the right level of metadata and business process logic. This is in contrast to all the effort in the creation of an analytical data warehouse which does not allow you to focus on the business process. The need to make information reusable and actionable within the business process is critical as well as how to use such information within the cycle and how to push back within the process.

Business Process Management (BPEL4WS)/Workflow. Both IT organizations and the IT industry are working towards promoting BPEL4WS (Business Process Execution Language for Web Services) as a standard. Previously, workflow systems used to be very intrusive – with business users all too often spending inordinate energies in contriving elaborate workarounds. Currently, it is possible to now synchronize around a data hub and track that back into the system. By 2005/06, with the convergence of BPEL4WS for the modelling of executable business processes, BEA, IBM, and Microsoft have adopted a model that is surprisingly similar to the one promoted by BPMI.org (Business Process Management Initiative). BPEL shares similar roots in Web Services (SOAP, WSDL, UDDI), takes advantage of the same XML technologies (XPath, XSDL), and is designed to leverage other specifications (WS-Security, WS-Transactions). Most contemporary modelling tools and development tools provide native support for business process execution language (BPEL) as the standard file description for the business process. Yet BPEL and other standards, such as XML metadata interchange (XMI) and common warehouse metadata (CWM), fail to make the exchanges between repositories fully transparent during the lifetime of the application. Next-generation asset management platforms must utilise BPEL4WS as a key technology for the integration of workflows and business process management.

Java. By 2005/06, the majority of highly scalable enterprise-class applications, especially those developed or maintained by asset management firms, will continue to rely upon Java as the primary language for such performance-sensitive applications. It is highly unlikely that asset management firms' IT organisations will reduce their reliance upon Java as their strategic development tool during the next 3-5 years. Additionally, given the conformance by the IT

organisations communities around the various Java standards, it is imperative that any enterprise-class tool or application purchased make productive and meaningful use of such Java standards. In particular, there are several Java-related specifications that provide the litmus test for degree of conformance with dominant industry trends that form a good portion of the underlying technology base for a product information pipeline.

Analytical APIs (ANSI SQL 99 for OLAP, JOLAP, XML/A, Java for Data Mining, XPath, XQuery). Funds management applications require scoring of performance as well as modelling tools. The dominant trend is away from proprietary online analytical processing (OLAP) or multi-dimensional database APIs towards the use of ANSI SQL statements that perform the brute force OLAP functions. Furthermore, vendors and IT organizations are increasingly leveraging the power of the Java OLAP specification (JOLAP) and even the Microsoft-led alliance that is driving a dual purpose OLAP API known as XML for Analysis (XML/A). XML/A has the major backing of all dominant vendors and provides both OLAP and data mining specifications for interoperability. “Open architecture” banking platforms also need to insure a common repository is queryable for both structured and unstructured information. XQuery is a highly malleable amalgam of an SQL-like syntax grafted on to XPath which in turn is used for querying XML documents. JSR 73 is the Java Data Mining specification for scoring engines and interoperability with the Predictive Modeling Markup Language (PMML) interoperability specification for exchange of models. This data mining API provides capability to leverage data mining functionality via a standard API to greatly reduce risk and potential cost. With a standard API, IT developers can use multiple products for solving business problems by applying the most appropriate algorithm implementation without investing resources to learn multiple vendor's proprietary APIs. Moreover, a standard API makes data mining more accessible to developers while making developer skills more transferable. JSR 69 is the Java OLAP Interface (JOLAP) for a pure Java API for the J2EE environment that supports the creation and maintenance of OLAP data and metadata, in a vendor-independent manner. Next-generation financial services platforms must provide capability to dynamically and easily integrate analytics within the product information pipeline – the dominant contemporary analytical APIs as JOLAP, ANSI 99 SQL, etc., provide such critical capabilities.

WebDAV Compatibility. Whilst it remains the purview of IT professionals to build out and maintain infrastructure, ultimately such asset management applications must be managed and evolved by the FSP professionals themselves. Else such enterprise information content-rich systems fail to scale and all too often collapse of their own rigidity. IT professionals require tools that support a rigorous life-cycle approach to evolving and maintaining such infrastructure. Such next-generation

tools must also leverage the standard professional approaches of contemporary application development in order to best leverage the skill sets of the asset management firm's workforce. The WWW Distributed Authoring and Versioning (webDAV) working group is responsible for a set of WebDAV standards widely used to save data to web sites (as opposed to just reading it from a site). Therefore, for repository access and constructs, the WebDAV community provides a solid basis to consolidate product information across the enterprise, control information for compliance and connect product information to clients, employees and third parties (such as other asset management firm's product information pipelines). WebDAV also provides for the definition of HTTP extensions necessary to enable distributed web authoring tools to be broadly interoperable.

Extreme Scalability. Scalability in size of databases and number of records will be critical as the amount of fund manager information storage growth returns to 90% compounded annually. The massive amount of corporate information assets required to be a market-leading fund manager, along with the increasing focus on information-based products and services, will lead to new developments in very large database (VLDB) technology during 2004-05. Scalability will be critical in the number of connections (users and applications) requiring participation in an enterprise's PIP infrastructure. Web Services offer the potential to simplify the delivery of such PIP capability, and would, for example, provide standard functions for product, client, relationship "lookup/manage" master data. Although small- and medium-sized funds managers may find solutions built on the NT operating system and Microsoft's BizTalk sufficient for master data synchronization, globally-scaled enterprises require high reliability, availability, and scalability available via systems such as IBM mainframes and MQ Series. Linux systems have begun deployment as mirrors for reference data such as content management when employed in high transaction online systems.

Case Study: Financial Services Provider

Asset management firms must often deal with tremendously complex business-to-business information supply chains — distributed across multiple, heterogeneous back-end systems. In addition to evolving such virtual supply chains, fund managers must continuously optimize the workflow and operational efficiencies of the new business processes — from new product introduction, through software development (increasingly offshore and subcontracted), to increasingly integrated client support channels to represent both in-house and competitor’s financial services products. Furthermore, Global asset management firms must stay focused on business processes which help to “scale the business” via more channels and more sales consultants. Overall, information about clients and channels is not as important as the view of clients that the “manufacturer” of the “product” has

A privately-owned “top 10” investment management group founded in the U.S. has recently struggled to scale its product information integration processes to address the pace and completeness requirements associated with “going global”. The firm’s services include asset allocation funds, equity funds, fixed income funds, money market funds and institutional portfolio management.

As one of the world’s largest funds managers, this enterprise is experiencing significant challenges while using traditional infrastructure to access and unify both structured (database) and unstructured (text) content. Product, supplier, and client data is currently housed and distributed in a way that causes fundamental problems for the people and systems using the data. Business-critical applications and channels cannot access and transact on the relevant collections of disparate data from a single interface. As a result, executing critical business processes such as new asset management product and service introduction and billing reconciliation (revenue assurance) is too long and error-prone. Multiple, overlapping applications must be used to access or enter data across multiple locations (as primitive as MS Excel and MS

Figure 3 — Overview of Activiti “ProductHub”

- Activiti is a new breed of software firm, bringing together the knowledge and experience of the enterprise software and the investment management industries to deliver enterprise software efficiencies to investment management.
- Activiti accelerates and optimizes the financial service “product” distribution process by building the first “straight-through-distribution” solution for the investment management industry. Such clients are demanding greater scrutiny and transparency of financial “products”. The Activiti “ProductHub” solution consists of:
 - “Straight-through-distribution” applications
 - Domain-specific data model
 - Information management platform for integrating both structured and unstructured info
 - Multiple information delivery vehicles

Access), creating data duplication issues throughout the operational back-end systems. Clearly, this funds manager must drive inefficiencies out to provider “straight through distribution” of information critical to the delivery of its “products” – a.k.a. financial services.

To accelerate a long term architectural solution to these client and product data integration issues, this funds managers recently engaged Activiti to help craft a “360° product information view” using the vendor’s domain-specific data model, which provided capability to dynamically create and populate content-rich data models by business entities (e.g., financial product/service, consultant/channel,). Activiti’s data and process models provide a logical view of the client and asset management firm’s product data, along with a set of rules to make multiple product information support systems appear as a single unified pipeline system (“straight through distribution” in the vendor’s vernacular).

For example, the Product Directory of the Activiti System organises and classifies product information whether it is stored in Activiti or not. That Product Directory has an extensible, domain-specific data model designed with the input of asset managers and investment consultants and reflects the dynamic information requirements of clients, channels and regulators. The Activiti Product Directory also manages product data, analytics, content and references to external data systems to support the rich information client require and provide a single, consolidated reference for product information.

From an architectural and strategic perspective, Activiti’s virtual “hub” provides the funds manager a reusable architectural foundation (a.k.a. “open architecture”) that significantly reduces time and cost to support new product and service introduction. This asset management firm’s long-term strategy is to utilize Activiti to integrate its supplier, client, and product resource information assets enterprise-wide, whether a database or content provider — and provide both internal sales consultants and external competitor’s/channel’s a single, integrated enterprise-wide “system of record” for financial services/products.

Per this firm, the “open architecture” of Activiti is similar to banks and resellers selling each others’ funds – which is more than simply “white labelling” each other’s products, i.e. a bank becomes a platform for reselling each others’ products. This allows each to become part of that “platform” and on an ongoing basis to provide info about what’s changed in those products and to therefore remain competitive. The “open architecture” is in effect a platform to sell different types of asset management products which can plug in other bank’s products. This is much more important for European funds managers that North American firms because of the proclivity of European banks to take other banks’ asset management products and sell them on. Thus it is increasingly critical to the funds manager’s retail branch to be able to sell this type of product. For this firm,

their “top ten” distributors represent 2/3 of their business. This book of business is predicated on such an “open architecture” relationship for this firm to be able to sell other asset manager’s products based on free flow of information among the business’s partners. It is notable that each of the Global asset management firms need to compete on the basis of “flow of information” as increasingly the asset management firm’s majority of revenue is at stake due to such flow of information. By not providing such info, a Global asset management firm puts its most significant portion of revenue at risk. It is therefore essential to have such information flows.

The firm cited in this case study evaluated Activiti as such a solution and determined that it was the only identified solution that can provide such a pipeline flow or provisioning of information. Activiti is therefore currently used as a central repository to hold and manage such info. Longer term, this funds manager is planning to implement a common platform with XML formats for data interchange among other financial services companies (note that this remains the “holy grail of B2B” among asset management firms).

By dynamically aggregating data from the numerous discrete product pipeline flows, the time required to integrate and cleanse quarterly information has been reduced from 10 days to 2 days, e.g., AUM breakdowns, holdings, etc. Concurrently, the time required to create RFPs and RFIs has been cut 50%.

Key Findings

Asset manager’s master data — especially client, product, and supplier/partner master data — is a critical asset that must be increasingly synchronized within and beyond the contemporary funds manager, primarily to solve business problems and not to re-engineer existing processes. While asset management firms are the “early adopters” for the formalization of “services” as “products” in regards to IT infrastructure and business process management, in practice any enterprise which represents a service as a product to the outside world has this challenge. For example, investment banking, retail banking, insurance, audit services, tax and legal services, government services, etc. all look to be major users of “product information pipelines”.

During 2004-05, users should re-evaluate direction of their long-term strategy, given the competitive nature of the financial services marketplace. In assessing their strategic IT initiatives, asset management firms should invest in technologies that facilitate relationships with third-party distributors and will leverage partnerships with bank and insurance channels in addition to the traditional “supermarkets”. Supporting the financial product information needs of partners’

channels will be an area of intense competitive advantage, as will the strategic use of client data and analytics to better sell and service third-party distributors. As many of the Global asset management firms finally roll out their B2B-based new product introduction initiatives, they are presented with an opportunity to overhaul the aged client, supplier and product master information files. Longer term (2005/06), it is clear that funds managers will gain significant competitive edge when they leverage common infrastructure such as the underlying components of an enterprise information integration solution. By 2007/08, similar competitive pressures will have forced such EII solutions not just within the enterprise, but also among its trading partners/suppliers including current competitors. As a result of the present vendor focus on product information pipelines as infrastructure, we expect even greater emphasis on the underlying data model to be part of upcoming IT vendor marketing wars.

In the late 1990s, every asset management firm did well and nobody asked too many questions. Now investment clients demand quality and reliability in their investment “products”. The best candidate technologies to provide such a “product information pipeline” are those centred neither in the physical hub of content management nor data management architectures. The preferred architectural solution mandates an “open architecture” platform such as a virtual “hub” of process management architectures, e.g., Activiti’s Product Directory and Hub next-generation platforms.

Bottom Line

IT organizations within Global asset management firms must add enterprise information integration (EII) solutions to their 2004-05 shopping list, as vendor attention to master data synchronization dramatically accelerates the diversity and availability of offerings. Establishing an IT infrastructure framework addresses the need to maximize efficiency within the funds manager’s product information distribution function, while improving the overall quality of services offered (completeness, timeliness, accuracy). The requirement is accelerating to provide an efficient infrastructure of systems and business processes to support these product information functions. Additionally, there is potential for enhancing efficiency within the processes by increasing productivity at both the Global and Regional level through shared systems and processes, while at the same time scaling up the overall capacity of the product information pipeline functions.

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