

Closing the ISV Integration Gap

Embedded Integration, the catalyst to ROI

WWW.DATAMONITOR.COM

Datamonitor USA

245 Fifth Avenue
4th Floor
New York, NY 10016
USA

t: +1 212 686 7400
f: +1 212 686 2626
e: usinfo@datamonitor.com

Datamonitor Europe

Charles House
108-110 Finchley Road
London NW3 5JJ
United Kingdom

t: +44 20 7675 7000
f: +44 20 7675 7500
e: eurinfo@datamonitor.com

Datamonitor Germany

Kastor & Pollux
Platz der Einheit 1
60327 Frankfurt
Deutschland

t: +49 69 9750 3119
f: +49 69 9750 3320
e: deinfo@datamonitor.com

Datamonitor Asia Pacific

Regus Darling Park
Suite 2131, Level 21, Tower 2
201 Sussex Street
Sydney NSW 2000
Australia

t: +61 2 9006 1526
f: +61 2 9006 1559
e: apinfo@datamonitor.com

Datamonitor Japan

Aoyama Palacio Tower 11F
3-6-7 Kita Aoyama
Minato-ku
Tokyo 107 0061
Japan

t: +813 5778 7532
f: +813 5778 7537
e: jpinfo@datamonitor.com

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Closing the ISV Integration Gap – Embedded Integration, the catalyst to ROI

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Executive Summary

The challenges that face organizations are ever evolving and today's business climate is no exception. Many of yesterday's challenges have been met and now organizations face new hurdles in an effort to improve margins, increase revenues per customer and grow market share. Among the latest generation of challenges is integration of business processes, applications and systems across the extended enterprise, which includes employees, customers, partners and suppliers.

IT departments must be able to respond to current and future business demands. They need to leverage current investments in infrastructure, applications, people and processes, as well as identify new business opportunities. This requires data access anywhere, at anytime, on any device, across organizational boundaries in order to create a value proposition that drives sales and revenues across the entire customer base. Needless to say, this is a daunting task.

Integration can be defined as the unrestricted sharing of business processes and data among connected

applications and data sources within an enterprise and between trading partners. Without integration, enterprises struggle with stovepipe applications, inconsistent data and inefficient business processes. Integration is a must to gain and retain competitive edge in today's business climate.

Integration technologies and the integration markets are evolving rapidly, therefore the issues and trends outlined in this paper will have a significant impact on both the user and ISV communities. Organizations need to tread carefully when selecting an integration vendor to ensure that they are well positioned to exploit the current and future trends in the integration marketplace.

This paper focuses on the benefits achievable through utilizing integration technologies within your own solution environment. We will explore the effects on how to drive revenues, grow market share and future proof solution offerings through the creation of intelligent and strategic partnerships that can reduce/eliminate developer costs and improve go to market strategies.

Introduction

The current economic climate and the recent years of cost containment and freezing of discretionary budgets have shifted the business 'goal posts' – users are demanding solutions that combine a lower price point with the ability to streamline their business. Focus has shifted, not only to encapsulate 'revenue-generating' investment, but organizations are aiming for a return on their assets (ROA) by striving to get the most out of existing infrastructure.

It is safe to say that some form of integration solution has become the cornerstone of a modern IT strategy. Furthermore, it is no exaggeration to say that having the right integration strategy and enabling technology is essential to business success today (and for the foreseeable future), particularly as most organizations operate in dynamic and competitive markets. Over the past 18-24 months, the goal of the 'well-integrated enterprise' has moved closer.

Vendors have reacted to end-user demand for real-time and near real-time information exchange by developing solutions taking internal application and B2B integration to a higher level of abstraction, through consideration of business processes. This approach allows those exchanging information among various applications to view the information flow in the context of a business process, or business model that defines business logic, sequence, sub-processes, etc. Exposing these business processes beyond the organizational boundaries is becoming increasingly critical, as organizations look to reduce costs, improve efficiencies and streamline relationships with trading partners, suppliers and customers.

Organizations of all sizes are looking to vendors who can provide future-proofed technology solutions that solve a business problem, while providing a low total cost of ownership and the flexibility to adapt and change the business to capitalize on the constantly changing business environment. Integration technologies and the integration markets are evolving rapidly and the issues and trends outlined in this paper will have a lasting impact on ISVs and end-users alike.

Organizations need to tread carefully when selecting their integration vendor to ensure that they are well positioned to exploit the current and future trends in the integration marketplace.

For ISVs, they can no longer be in a position where their applications and solutions remain as islands within the user's environment. They must look to embrace integration technologies to enable the user to leverage functionality across extended value chains and solidify your position within the customer base. Otherwise ISVs run the risk of being displaced as user's look for applications to be at the centre of their data infrastructure.

Multiple benefits are available to both parties: customers can experience a lower total cost of ownership (TCO) and ISV's can improve margins and revenues by utilizing standardized technologies to connect their solution offerings to legacy systems in a more efficient manner.

The goal of utilizing embedded integration functionality within your application or solution is to essentially promote and enhance configuration, not code. The ultimate aim is to configure each element of the application and integration functionality via simple interfaces, rather than hard coding into applications. Of course, there is nothing wrong with writing code, but there's plenty of code to be written that delivers business application benefits instead of dealing with the hard wiring interdependencies between applications and services.

Within its distributed deployment infrastructure, integration solutions can efficiently provide central configuration, deployment and management of services that are distributed across the extended enterprise and provide real financial benefits to the ISV community.

This paper highlights the hard and soft ROI benefits that can be experienced by embedding integration functionality into ISV applications. An analysis of two real-life ISVs leveraging integration technologies is given. Here Datamonitor has reviewed the critical challenges faced, the solution implemented and the benefits achieved.

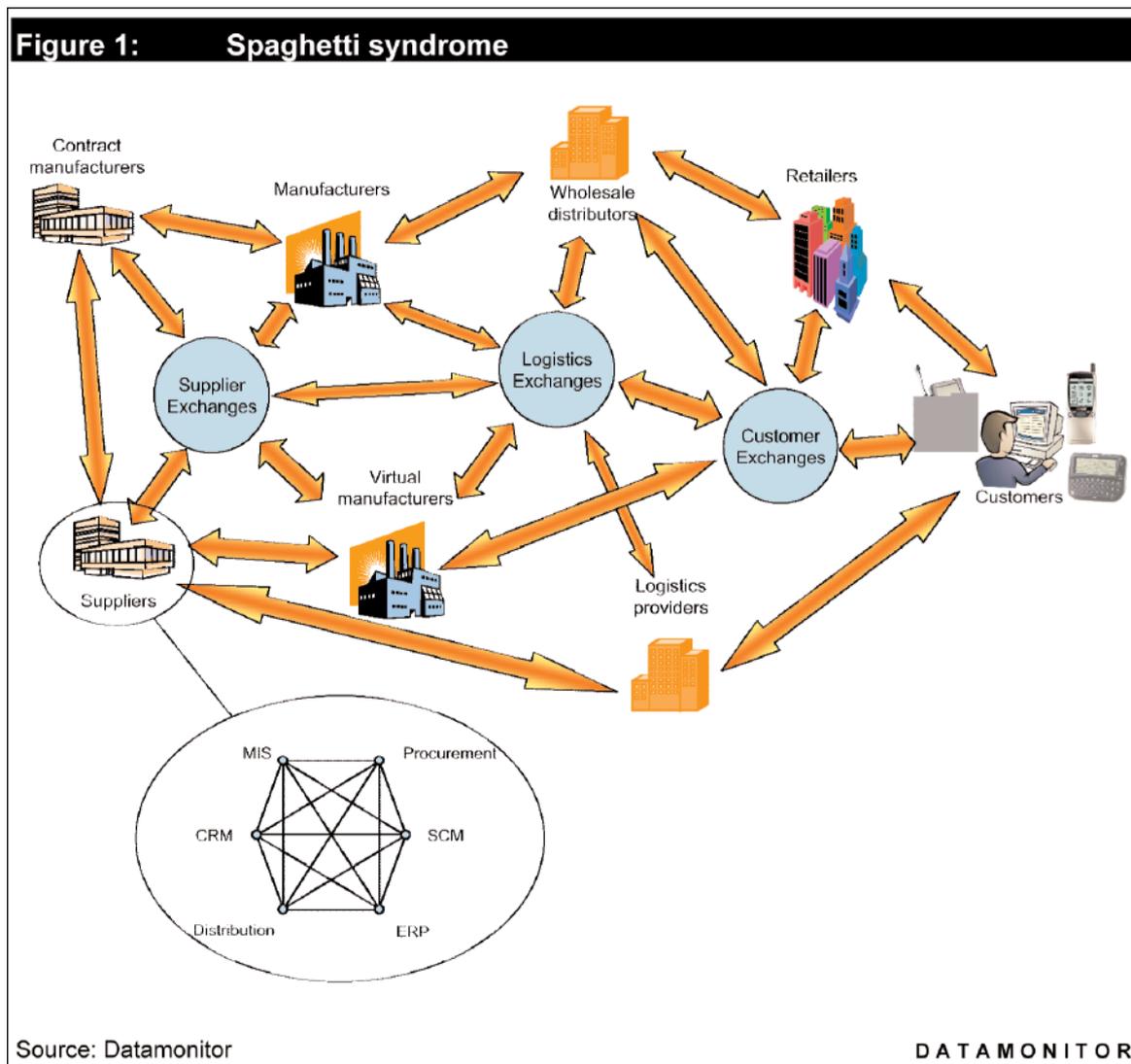
Integration Challenges

The real business issue

Today's organizations typically interact with hundreds or thousands of business partners, suppliers and customers on a daily basis. However, many suffer from lack of visibility and flexibility throughout the enterprise value chain, resulting in a lack of competitiveness, lack of agility and high costs due to inefficient and costly manual processes, excess stock levels, poor customer services, etc. The business relationships that any organization has today typically results in the well known 'spaghetti syndrome'. This is where multiple parties, numerous products and services interact in a haphazard fashion via many inefficient manual and non-automated processes.

This complex headache of inflexibility not only occurs internal to an organization at the application level, but also beyond the four walls with business partners.

Typically, organizations turn to technology to help in solving these business issues and to facilitate integration internally and externally. However, the key problem with current approaches is that all companies are complex, have differing business goals and are supported by a raft of different technology paradigms. Furthermore, most are trying to connect and automate applications, systems, processes and transactions at the level of technical integration – and they are struggling. This does not bode well for organizations who are striving for the agility, flexibility and visibility needed to compete in today's market.



The goal of integration

Ultimately, making the organization easier to do business with is one of the key drivers for an integration strategy, but potentially one of the most difficult to achieve. This requires the alignment of infrastructures, strategies, people and processes. The last round of efficiency gains came from breaking down barriers between major internal functional stovepipes and reengineering inside the enterprise. Now, the focus is on repeating this success for all internal applications and also across the interface between business partners, suppliers and customers.

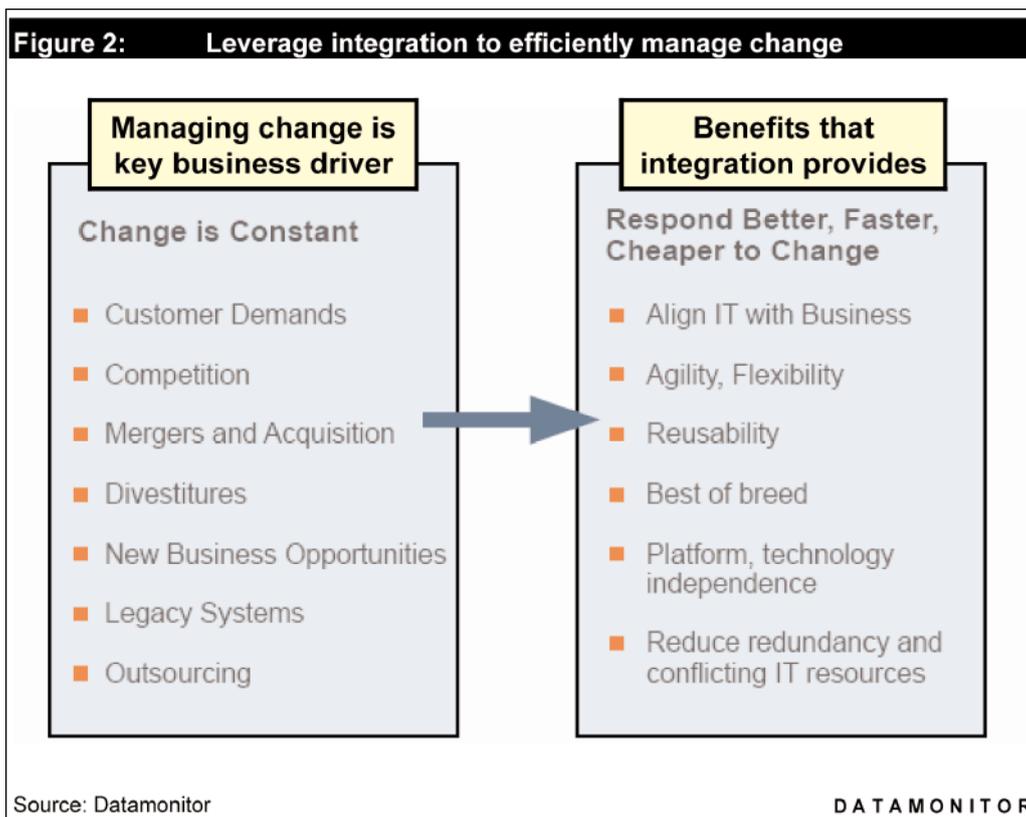
“The goal of leveraging internal and external integration technologies to reduce costs and improve business relationships and revenue opportunities is no longer restricted to the enterprise market. This is now permeating into the mid-tier, and SMBs must look to replicate the benefits of coordinating integration technologies, both internally and externally” – Tony Hart, Senior Analyst, Datamonitor.

By following such a strategy, integration solutions and inter- and intra-company processes are deployed and modeled at the business level, independent of the computing environment, which makes it far easier to

manage change. Usually, the cost of cross business reengineering is too high if managed on the basis of technical integration and systems implementation alone. For the methodology of a consolidated integration architecture to be successful, a robust and flexible integration infrastructure is required.

This is separate to the idea of traditional integration, which looked to tightly couple and hard wire integration on a point-to-point basis. Therefore, the aim is to expose application services (functionality, underlying and embedded processes, etc.) to a centralized management layer. This allows companies to attain a global view, that is accessible anywhere, of a

distributed environment that exists between many different organizations. This allows legacy systems to be included within the management environment, thereby removing or reducing the barriers and costs involved, and exploiting further value from existing investments.



The evolution of integration

Initially, asynchronous integration approaches defined process models implicitly, by implementing independent interfaces between application and process steps, typically coordinated using shared message queues or data stores. The integration emphasis was on making applications talk to one another, by reconciling differences in interface structure, content and semantics. The missing ingredients in this approach were support for manual process steps and a common process view that could provide a basis for modeling requirements at a business level, as well as for tracking and managing of process status.

The evolution of integration technologies means that new solutions are emerging that support both business process modeling and interface-focused information flow

modeling without low-level coding. Marrying these two approaches to the asynchronous approach, organizations gain the ability to capture and model process

integration requirements at the business level. Furthermore, users will also realize faster implementation of interfaces to back-office applications, Web applications, enterprise data stores, trading partner systems and other IT resources, while also having the ability to monitor and manage the operational results using business-level process models.

In most environments, there are three levels of integration that can be deployed that when combined, ultimately deliver greater benefits than the sum of the individual components. These include:

- Data migration
- Data integration
- Business integration

Data migration

The main concern for most organizations when investing in new applications is the cost and time it will take to migrate from the old technology environment to the new one. There is a real need to

leverage native data connectors that allow access to all content and data formats, while providing a conversion engine that is robust enough to cope under any scenario. Today's tools should provide wizard-based and drag-and-drop visual mapping functionality, while being based on a rich transformation language.

Such tools will reduce the time needed (by ISVs) to understand underlying data structures and provide high processing performance during the migration itself, no matter what the source data is (such as SQL database files, COBOL data, flat files, spreadsheets, etc.) or the target's data structure. The capability to handle large and small data files is a must.

Data integration

In today's business environment visibility is vital.

Organizations must be better informed in order to

make important decisions. For ISVs, your customers have to leverage simpler mechanisms to aggregate, replicate, convert and load data from across the organization.

“The goal is to enable and simplify the manner in which legacy and new application / platform environments communicate at the data level.”

Again, native connectivity is important, providing the necessary application hooks and eliminating custom coding and the associated integration headaches. Moving towards real-time operations will allow users to access and act on the right information at the right time – providing enhanced competitive advantage. In order for ISVs to deliver on the promises of integration, they must leverage automated ETL and data integration functionality to allow all design metadata to be saved and stored in an open XML-based design repository for simplified metadata interchange and reuse.

Business integration

After several years of cost containment, organizations are now looking to drive revenue potential. This not only involves the coordination of internal systems and processes, but involves looking beyond the four walls and leveraging the relationships and capabilities of trading partners to drive additional revenue. There is a real need for solutions to bridge this gap and provide the means to integrate internally and

externally in an efficient and cost-effective manner. ROI is a key component for both users and ISVs, and ISVs should look to utilize technologies that allow native connectivity to applications and systems across distributed data sources.

Such a solution must provide message bus support, XML-based integration repositories for storing design-time metadata and should be built upon a high-performance production engine. These capabilities will allow organizations to rapidly design and maintain processes that translate and manage business documents when they flow between internal business systems and those of trading partners.

Key benefits of embedded integration

An integration solution that can facilitate internal and external integration efficiently will benefit your customers, both tactically and strategically. It will positively impact business practices and IT infrastructure utilization.

Building a better business is a key goal of a unified integration solution. The 'consistent connected enterprise' offers a number of key benefits for both end-users and ISVs:

End-user benefits

- Joins the disconnect between management decisions and the IT infrastructure and applications that will execute a business process;
- Intelligent sharing and caching of information improve response times in all areas of the business. Development time, speed to market and cost of new products, channels or service offerings are reduced;
- Consistent levels of service, customer information and ways of conducting business are presented to the customer and to internal staff;
- Development of an integrated systems environment increases the quality and timeliness

of management information regarding customers, risk, capital adequacy etc.;

- The IT department benefits from having a clear cut separation of the business processes from the underlying applications that fulfill the process. The application architecture essentially becomes a 'plug-'n'-play' environment, creating operational efficiencies. Maintenance costs for systems, code and IT staff are reduced.

ISV benefits

- Removal of duplicated / redundant functions increases speed and efficiency in business processes, reducing development time, speed to market and cost of new products, channel or service offerings;
- Integration, maintenance and training times associated with changes to business process and accompanying systems is reduced;
- Business-level design of systems reduces reliance on a dwindling number of experts in arcane protocols and reduces 'learning time' when IT staff are replaced. Also, maintenance costs for systems, code and IT staff are reduced.

"Custom coding must be avoided at all costs. ISVs should look to leverage easy-to-use design environments that accelerate development and allow the design of business and data flow processes, while providing the functionality to allow the parsing, validation and transformation of application information."

- Through configuration and automation, developers can focus on high value tasks, not time-consuming regularities. This allows ISVs to intelligently route tasks to the right people with the right skills at the right time;
- Shortening cycle times creates a lower cost of delivery within the IT department. With a strong BPM / BPI solution, the IT department can reuse existing process models and modify them as needed to implement a new service;

What does integration means for ISVs?

In the mid-market, it is becoming increasingly evident that organizations are looking to ISVs to provide

integration and connectivity functionality that is embedded within their application portfolio. The traditional business model of adding features and functionality to drive new sales and upgrades will be superseded by an application's ability to integrate with the rest of the SMB's application infrastructure.

The dynamic nature of today's business environment means that organizations are demanding integration-enabled applications that are simple to use and update, and that can be quickly integrated with their underlying infrastructure. There is a real need for ISVs to solidify their position within the customer base and unless applications have integration capabilities, they run the risk of being replaced by competing products.

Although consulting and professional services teams can assist in the integration of applications, improving margins and profitability dictate that applications need to be pre-wired for integration, or provide a standard integration approach; otherwise they will continue to be at a competitive disadvantage versus the competition. In these scenarios, consultants and channels partners will find that they are reinventing the 'integration wheel' for each deployment. This can dramatically increase the length of the sales cycle, drive deployment costs through the roof and generally make the application less of a viable option for the customer. This effect is more pronounced in the mid-market where IT resources are at a premium and TCO is a major driver.

The benefits of an integration-enabled application have been discussed above. For the ISV, there are significant benefits that can be achieved, such as improving competitive positioning and thereby limiting exposure to competitive threats by providing complementary solutions that supports your customer's business needs. Furthermore, applications with integration capabilities provide the potential to extend the life of an application via long term flexibility and adaptability.

ISVs that leverage integration technologies in the deployment and configuration phase (via professional services teams or through the channel) can enhance the efficiency of deployments by providing the ability to integrate with a wide variety of data sources/targets or applications. In addition to boosting customer satisfaction, faster deployments can collapse sales cycles and also free up highly skilled and expensive developer resources that can then focus on augmenting the next generation of the ISV solution offering. Key benefits of integration enabled applications include:

“Through leveraging embedded integration technologies, ISVs and their customers will look to rationalize time, costs and processes, while fostering the development of skills, accountability and, above all, consistency across the organization.”

- Easier migration path for customer's across the full portfolio of product lines as and when needed and also provides the ability to integrate with legacy systems and applications quickly;
- Differentiation and competitive advantage so that your applications

become a key part of the customer's mission critical process and strategy going forward;

- Faster sales and deployment cycles coupled with the potential to expand product footprint with unique capabilities and revenue opportunities, thereby greatly enhancing margins;
- Drive revenues in your existing install base by up selling solutions with no switching costs and enable organizations to leverage higher value dispersed and corporate data;
- Open up additional revenue opportunity by reselling to the channel and enabling them to address the exact needs of the market and also through increasing the bandwidth of your professional services teams;
- Avoid reinventing the 'integration wheel' by eliminating custom coding and focus costly developer skills on your core business and solution offering.

Achieving significant ROI via embedded integration

Integration is an important step forward for enterprises of all sizes in their quest for streamlining business processes both internally and also interacting over the Internet with business partners, suppliers and customers. Transparency, efficiency, cost reduction and building relationships is the name of the game, as end-users look for integration-enabled applications that aim to solve internal and external integration issues. However, finding the right vendor that will provide the right integration solution at the right cost and to time can be difficult.

Organizations in today's current economic climate wish to utilize the latest technologies and extend the use of the legacy IT systems they currently have in place, but at an affordable price. The need for a reliable, standards-based, scalable infrastructure that will allow seamless business-to-X communication and information exchange is strong. In an environment where ISVs are trying to streamline operations, improve efficiency, improve customer service and eliminate cost centers, all vendors will have similar requirements from an integration-enabled solution:

- **Open up 'silo efficiencies' to streamline business processes and eliminate bottlenecks and costs** – ISVs need to shorten cycle times of introducing new products / services and reduce the cost of altering key business processes within the customer environment;
- **Agility, flexibility and visibility** – throughout the deployment value chain are demanded by ISVs today. Regaining control of the design, build and test cycle from the hands of custom coding is the name of the game, in addition to the elimination of costly and slow manual process steps;
- **Improve competitive positioning** – reuse of code promotes savings in development and deployment time/costs thereby improving margins, yielding competitive advantage in the market, greater customer loyalty and greater market share opportunity;

- **Minimization of risk** – by future proofing the application suite through integration capabilities, ISVs minimize the risk of being displaced by competitors and significantly enhance the probability that customers will maintain you as a long-term strategic partner;
- **Total cost of ownership (TCO)** – not only do ISVs have to promote a lower total cost of ownership for their customers, it is vital that ISVs look to reduce the high development and maintenance costs of developing in-house integration technologies. ISVs must look for an integration solution that automates and standardizes the design process, optimizes the reuse of code and underlying business processes.

Do not build in-house, partner with integration experts

The discussion so far in this paper (and the case studies that follow) should make it clear that ISVs should look to partner with integration vendors to provide the necessary connectivity functionality demanded by customers today. To further clarify, some of the key challenges with developing in-house integration solutions include:

- **Costly to develop and maintain** – although in-house developers time is considered 'already paid for', the hidden costs of training and quality assurance can be high. Would your organization benefit more by utilizing your developers on projects that can create new opportunities and move the business forward? Who is responsible for maintaining the integration technologies and how do you adapt to new standards and changing platform environments? Ultimately, labor, maintenance and opportunity costs dominate in-house integration initiatives;
- **Costly to keep pace of change** – keeping up to date with all of your customers environments and adjusting to these changes will over burden the ISV with unnecessary maintenance costs. Ultimately, customers are free to run differing versions of applications, business practices, database versions, computing platforms, etc. without consultation. Will/can your application quickly and cost effectively adapt to this change?

- **Time consuming** – in-house integration projects are usually dogged by long learning curves and slow development cycles. In many scenarios, the necessary due diligence required to prepare for all contingencies is not performed, resulting in half-hearted and fragile integration solutions that are likely to shatter when sufficient pressure is applied.

The benefits of buying in integration capabilities from experienced vendors in your market segment include:

- **Low TCO** – embedded integration functionality can reduce costs by automating and standardizing the design process, avoids reinventing the ‘integration wheel’ each time, faster implementation and deployment;
- **Faster time to market/money** – time is of the essence, ISVs can no longer afford the long development cycles of custom built solutions. Partnering with an integration vendor provides a technology stack that is easier to learn and train on, simpler process definition and transformational mapping, faster development and deployment, speeding the time to money;
- **Flexible, dynamic and scalable deployments** – vendor supplied technologies will commit to supporting new and evolving standards, allowing you the ISV the required flexibility to remain adaptable to any environment;
- **Higher level of 3rd party integration** – partnering with integration vendors removes the headaches

“The buy versus build argument will continue for many years, but ultimately, licensing integration capabilities and creating solid partnerships with such vendors will give your organization the necessary competitive advantage to ensure your place in the customer’s infrastructure.”

of trying to connect disparate data sources, message buses, web services, applications, document schemas, etc. and improves the data accuracy and deployment flexibility;

- **Optimization of development resources** – the opportunity cost for ISVs who spend time working

on non-core competency technology development removes the ability to add value to the core value of the application;

- **High performance and reliability** – if you have built integration internally, do you have the resources to complete a full and comprehensive iterative testing process?

Typically, the answer will be no. Look to partners to provide an infrastructure that offers high reliability as standard.

It is important for ISVs to realize that they need to reduce their exposure to risk, boost the top line and solidify the bottom line to ensure customer loyalty and new revenue opportunity. Integration can, and will, play a major role.

ROI check list

A key deciding factor for all organizations when considering investment strategies is the potential for return on investment (ROI). However, each organization is unique and will view ROI in different ways. Therefore, below is an ROI check list that isolates some of the hard ROI metrics that can be achieved through embedding integration technologies in your application suites.

Figure 3: ROI of embedded integration

	Achievable ROI	ROI Metrics	ROI Implications
1.	Focus development resources on core functionality	<ul style="list-style-type: none"> • % of R&D costs spent on in-house integration • Salary of developers • Opportunity cost 	Reduce custom coding and maximize resource utilization and productivity
2.	Reduce support costs and internal admin of integration	<ul style="list-style-type: none"> • # of support calls • Salary of support staff • Maintenance costs 	Maximize reuse and avoid reinventing the 'integration wheel'
3.	Extend application penetration further into the customers environment	<ul style="list-style-type: none"> • % Retention rate • Ave revenue / customer • Improved competitive positioning 	Enhanced revenues through improved customer retention
4.	Reduce time to market by accelerating customer acquisition	<ul style="list-style-type: none"> • Ave sales cycle and cost • Daily implementation costs • % change in sales cycle / implementation • Deferred revenue 	Improved customer satisfaction will lead to larger projects, driving revenue
5.	Open up new revenue sources and target new markets	<ul style="list-style-type: none"> • % change in market share • Revenue / customer 	Be in a position to capture market share and quickly respond to customer demand

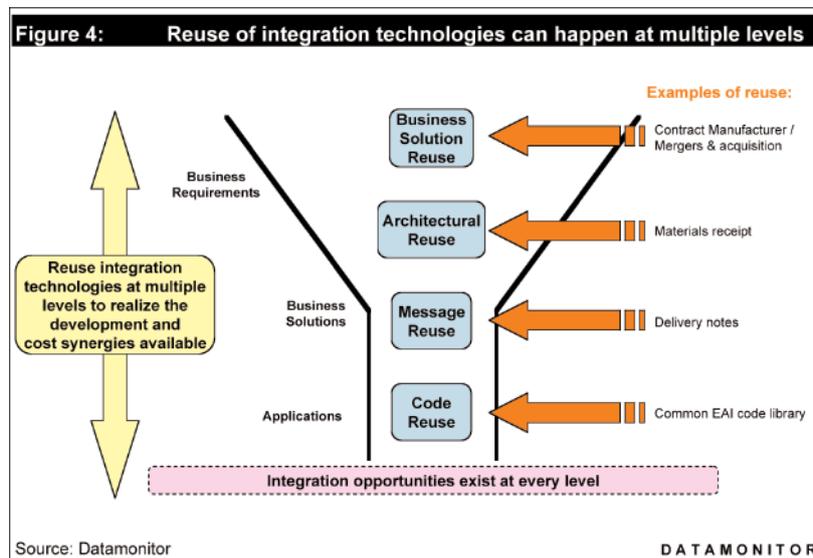
Source: Datamonitor / Pervasive Software DATAMONITOR

Reuse, reuse, reuse ...

Although the reuse message has been communicated throughout the paper, it is important to note that reuse can occur at multiple levels. Reuse of infrastructure and interfaces has a direct impact on resource bandwidth, freeing up more developer and support bandwidth for business functionality. As with most companies, real time to market / time to money is dependent on the release to production cycle.

Innovation is a reflection of how fast vendors can actually implement solutions, not just develop them.

Reusable, repeatable solutions and processes will be vital to speeding the release to production for all vendors concerned. All parties must look to leverage existing intellectual property, methodologies, processes and code to reach the answer in shorter timeframes.



Exchequer Software do once, deploy many

Exchequer Software a UK-based vendor has been providing mid-market organizations with financial business and accounting software since 1986. Typically, Exchequer Software's business strategy revolves around replacement strategies for organizations that have outgrown their financial and accounting systems. Given the nature of their customers IT environment and business strategy, Exchequer can be the fifth (or higher) solution that they will have implemented.

Current pain

During the implementation phase, Exchequer is tasked with solving multiple data migration headaches that are inherent with many years of transactional data that resides in legacy and data rich systems. This traditionally resulted in costly, developer intensive and hand crafted approaches to solve the data integration problem.

Solution requirements

In order to provide a better service to customers, Exchequer needed an 'out of the box' integration solution that would solve 80% of the customer's data migration and integration problems, while simplifying the working environment for both the ISV and its customers.

Exchequer's main criteria for selecting an integration technology included the number of native adapters to disparate data sources (reducing the complexity of the mappings) and the ability to be 'white labeled' and re-branded under the Exchequer brand.

To meet these needs, Exchequer selected Pervasive Software as its integration platform. Furthermore, the fact that the Pervasive solution is unobtrusive within the customer's infrastructure/application environment meant that it could reduce the level of technical qualifications needed to operate and maintain. This presents cost savings for both the ISV and the customer.

Benefits achieved

The integration touch points of the Pervasive solutions mean that Exchequer can widen its coverage, as it is now able to connect to systems that would have traditionally been too cost prohibitive to integrate with. Custom coding is virtually eliminated and has reduced any bottle necks in the development cycle, freeing up expertise into the channel – allowing experts to focus on business development and

helping the customer achieve its goals. Consultants are now able to adjust/configure data sources, mapping and transformation rules with the customer, to ensure that the solution is delivering to expectations. These capabilities empower the customer to make critical business decisions when it matters – with accurate data and information. Exchequer estimates that the initial returns from this partnership equate to the yearly cost of a developer.

Exchequer's customer base has, and will continue to benefit from integration enabling its application portfolio. Migration is less painful, maintenance costs decrease and they have the ability to exploit data in new and better ways, to drive revenues and ensure customer retention. Another important benefit is that customers now have the comfort of a rigorous trial and error phase prior to committing to the final design of the solution.

Future plans

Exchequer is committed to the Pervasive partnership and it expects to plug more adapters into its solution set and embed integration capabilities in the next generation of its products. The Pervasive solution is now used as a selling tool and a competitive differentiator, and Exchequer expects ROI to be an order of magnitude higher once rolled out to more customers and partners. Enhanced customer satisfaction means that they are able to generate more revenue per customer and improve retention rates.

"The integration capabilities from Pervasive allow us to address the customers change in circumstances, without too much impact on the business. The integration capabilities are at the back of the mind each time we engage with a customer – opens up new opportunities" – Eduardo Loigorri, Exchequer Software.

Key ROI benefits

- Passing interface development to the Pervasive solution results in the financial equivalent of the cost savings through eliminating of a developer resource;
- Enhanced business development and shorter sales cycles as business consultants perform all design, build and test phases;
- Faster deployment times and standards-based infrastructures enhances reuse of code, customer satisfaction and promotes the opportunity for repeat business;
- Faster time to market (and faster time to money) as Exchequer is able to focus key resources on enhancing its own product development;
- All future customer engagements will incorporate the Pervasive solution to ease integration headaches.

Artemis International

Integration speeds time to market

Artemis International Solutions Corporation is a leading provider of investment planning and control solutions that help organizations execute strategy through effective portfolio and project management. Integration is a vital part of its solution as it looks to interface with transactional, asset management and payroll systems, for example. This has previously been achieved via custom coding adapters.

Current pain

Experience had shown that the custom coding of integration adapters was not the right business or technology model to adopt. All custom initiatives proved costly, very time consuming and required vast amounts of maintenance once implemented. The inherent nature of mapping and transforming data also meant that ETL capabilities were required.

Solution requirements

Artemis needed a solution that was capable of providing integration functionality and interface connectivity at a fraction of the cost and deployment time, while standing the test of time for the customer, providing them with the necessary flexibility and standardization to allow their businesses to adapt to change. Pervasive integration software was chosen to fulfill all current and future integration requirements.

The main aim for Artemis was to form a strategic partnership with an integration vendor that would provide the necessary integration, ETL and process capabilities, but eliminated the need for Java coding. Furthermore, Artemis was keen to simplify the complexity of the mapping and

transformational tasks, so that business consultants are able to define and configure the interfaces for customers, without having to resort to writing custom java code. Currently Artemis bundles the Pervasive integration software product as a 'black box' solution offering, hiding the complexity and detail from the customer and they are in a position to easily deploy interfaces quickly.

Benefits achieved

Artemis is now able to interface with any legacy system and data format and capitalizes on the reuse of code for development efforts. Now, interface development takes half of the original timeframe, enhances customer satisfaction (given the shortened delivery time) and reduces the total cost of ownership for the customer.

Future plans

Artemis is using the integration capabilities as a competitive differentiator in the sales cycle, to shorten time to market and success – with customers appreciating the simplified integration capabilities. In going forward, it expects to leverage Pervasive's capabilities in every future customer engagement, while providing the platform for enhancing its own application areas.

Key ROI benefits

- Saved 50% per client engagement in contract developer costs. Savings that are passed on to the customer;
- Interface development and data integration task is now 1/2 of original time speeding up customer deployments;
- Enhanced business development and shorter sales cycles as business consultants perform all design, build and test phases;
- Faster deployment times and standards-based infrastructures enhances customer satisfaction and promotes the opportunity for repeat business;

Pervasive Software

solving the ISV's integration headache

Integration is becoming an important business and technology enabler, not only in the enterprise market, but also in the SMB sector. The majority of integration vendors are focused on the enterprise space in the

hope of winning big ticket deals. Over time

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anticipates that many will try to move down into the mid-market, but will fail. It is clear

that SMB

organizations and ISVs have integration headaches that need solving now.

Therefore,

Datamonitor has

focused its attentions

on Pervasive Software,

one of very few, if not the only provider of integration solutions aimed at the mid-tier ISV.

Pervasive Software is a leading provider of data infrastructure software to mid-market organizations. It has won numerous awards for its product offerings that enable organizations to manage, integrate, analyze and secure critical data within a scalable standards-based environment. It has over 20 years of experience of serving over 35,000 customers in this market with low TCO, reliable and flexible solutions.

Pervasive's goal is to help IT organizations, ISVs and system integrators take costs out of data and business integration. Its solutions aim to reduce the complexity, costs and risks associated with traditional integration deployments by providing a versatile and configurable integration architecture, to ensure rapid deployment, scale and a lower total cost of ownership. Its comprehensive and easy-to-use visual

design tools allow ISVs to rapidly design, build and test integration processes that span multiple applications, data formats both internally as well as across the extended enterprise with trading partners. The modular nature of the Pervasive family of solutions means that organizations have the flexibility to integration-enable applications when needed. To enable the channel and drive revenues for all parties,

Pervasive integration can be bundled with ISV applications, either on-demand or in conjunction with the ISV's copy of software. For true embedded integration, Pervasive offers embedded editions of its solutions, allowing ISVs to truly take advantage of integration within their application portfolios. Pervasive solutions include:

The case studies highlighted illustrate that real financial and efficiency benefits can be achieved by leveraging integration solutions in general and the Pervasive solutions in particular. In today's tough competitive environment – made all the more difficult with larger vendors moving down into the mid-market – ISVs must look to integration-enable their applications to ensure that they remain viable and competitive, and at the forefront of the customer's mind.

- **Pervasive Data Migrator Embedded** – pre-wires applications with the capability to easily migrate legacy data over to the new environment. This allows project-based migrations that enable legacy data migration to promote lower TCO and faster ROI;
- **Pervasive Data Integrator Embedded** – seamlessly integrates into your customers infrastructure providing ETL and data integration capabilities. Realized benefits include provision of continual and real-time integration, lower TCO and faster ROI, while integrating legacy and unstructured data;
- **Pervasive Business Integrator Embedded** – enables organizations to integrate across the application layer and expose information and business processes to external trading partners. Enhanced visibility throughout the extended value chain promotes lower TCO and quicker ROI.

Summary - so what next?

Businesses are now moving on to the next phase of integrating all of their business processes and information to optimize the competitive, operational and financial benefits that can come from developing real-time linkages of internal applications as well as externally with suppliers, customers, resellers and partners. It is essential that they have their internal systems and processes fully integrated to realize these benefits. This market is being driven by an organization's need for a single integration solution that supports both internal and external integration requirements.

Due to the plethora of incompatible integration solutions chosen by organizations, inter-organization and trading partner integration is typically difficult and complex. Organizations of all sizes have a need for a flexible integration solution that supports both internal and external integration requirements, while also providing a low-cost platform independent and Internet-based solution that has minimal impact on existing applications and business processes.

Agility is key for ISVs to survive in the current climate, with end-users demanding solutions that allow them to quickly react to evolving opportunities without the need for hard coding between applications and external partners. A fully flexible and modular based integration solution that essentially 'plugs and plays' is required. This will allow ISVs and organizations to improve the responsiveness to customers and internal management by evolving delayed batch file transfers and updating processes to real-time, event-driven processes. However, this can be a daunting task for an IT department, ISV or integration vendor.

Therefore, ISVs are advised to choose a vendor who is able to provide a comprehensive solution that tackles the issue of business process, application and system integration internal and external to the enterprise, in addition to appreciating the nature of your business and the vertical market you and your customers operate in. The demands that ISVs should place on integration vendors may include the following:

- **scalability and performance** – system architecture must be capable of scaling from dozens through to hundreds or thousands of business partner connections and servicing client requests simultaneously;
- **manageability** – integration linkages and processes will adapt to evolving business needs and changes in external pressures, such as economic, customer demands or supplier capabilities. Management of processes within an integrated environment is a necessity, not a luxury;
- **extensibility** – systems must be able to exchange numerous document messages and formats simultaneously in real-time. The integration solution must support new and evolving standards and extend business process models as needs dictate and provide full support for all adapters to new and old external systems. Support for Web services will also become increasingly important as the level of understanding and adoption increases;
- **reliability** – transferring data between systems can be mission-critical to an organization and it is imperative that the architecture has guaranteed event storage, delivery, clustering and failover capabilities across all product lines;
- **multi-platform support** – integration solutions must be agnostic towards hardware platforms and operating systems, so that they are deployable in multiple, heterogeneous operating environments;
- **industry standards and programming languages support** – vendors' products must provide broad support for XML and ebXML-based standards and programming languages across numerous applications and at various levels of sophistication, in addition to the multiple Web services standards, such as SOAP, WSDL, UDDI, BPML, etc.;
- **support transfer protocols** – integration solutions should have the capability to support the following standard protocols: EDI, RosettaNet, XML, SOAP, HTTP, HTTPS, FTP, SMTP, POP3 and IMAP as well as unusual legacy system interfaces;

- guaranteed message delivery across firewalls – communication with partners, suppliers and customers means that operations through firewalls are commonplace, with guaranteed message delivery a necessity;
- security – end-to-end security must be delivered through Internet HTTPS, LDAP, SSL encryption, digital signatures and many others to enable transparency of firewalls.

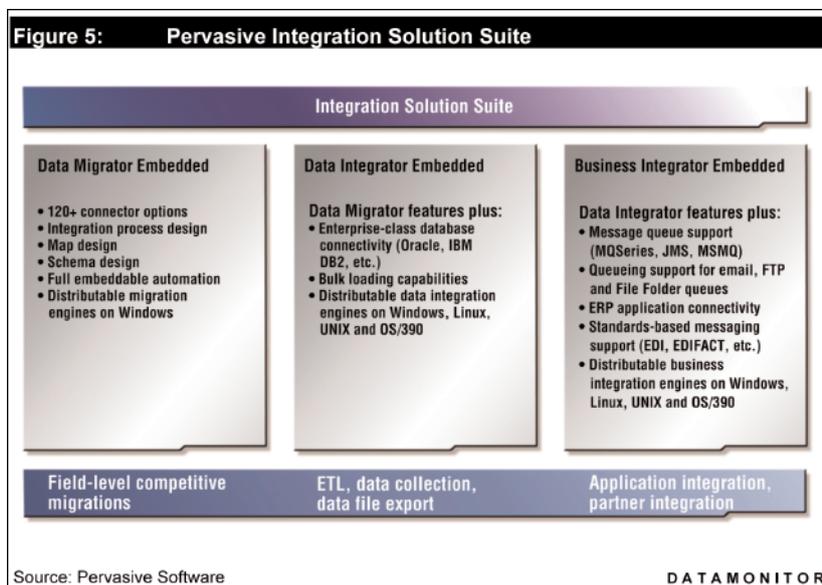
As can be observed, Pervasive Software is a leading provider of integration technology meeting the market demands and benefits outlined in this paper for the ISV community. Each client and ISV engagement has met with considerable success, with ISVs and their customers experiencing some or all of the following benefits:

- Direct generation of new business and revenue opportunities;
- New customers / clients can be integrated into the solution in a short space of time;
- High performing, secure and scalable solution offering that makes no assumptions about the legacy systems or security policies present within different organizations;
- Existing infrastructure is leveraged, thereby reducing overall deployment and maintenance costs;

- Modular design and flexible technology supports any additional product and service offerings present within the deployment environment.

The integration enablement of applications is a vital consideration for ISVs to ensure customer satisfaction and long term growth. The two independent case studies highlight this further, with both ISVs realizing the following benefits through integration:

- Reduce developer costs and time to market significantly by transferring interface development to the Pervasive solution;
- Enhanced business development and shorter sales cycles as applications come pre-wired to plus into the organization's application infrastructure permitting business consultants to perform all design, build and test phases quickly and efficiently;
- Faster deployment times and standards-based infrastructure enhances reuse of code, customer satisfaction and promotes the opportunity for repeat business;
- Faster time to market (and faster time to money) as ISVs are able to focus key resources on enhancing their own product development;
- All future customer engagements will incorporate the Pervasive solution to ease integration headaches.



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