



**WebSphere** software

**Business integration to help gain  
competitive advantage.**

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### Introduction

Today's business environment is changing rapidly. Market forces such as mergers and acquisitions, expanding regulatory requirements and globalization can challenge the effectiveness of your company's existing business processes and IT infrastructure. What's more, customers expect immediate reaction to their requests. This can further expose inefficiencies in your internal business processes. If poorly integrated processes, data and applications slow your company's response—or make it impossible to meet customer expectations—what was previously an internal problem is now visible to everyone in your value chain.

Companies that are able to respond to these challenges have a better chance of surviving and thriving. And companies that are doing just that have learned that it is key to align business goals with IT goals. In fact, in a survey of 170 major U.S. companies and IBM's largest customers, companies that made the most progress integrating business processes and infrastructures—both internally and with their value chain—saw a 15 point growth in earnings.<sup>1</sup>

Improving IT flexibility and responsiveness through end-to-end integration can help you achieve business success. You can start by defining your business goals. Assess where your business is today and where you want it to be in the future. And develop a strategic integration plan to help you get there, with incremental wins along the way.

This paper discusses some of the factors that can help you make business integration choices to meet the unique requirements of your organization. You can build an integration strategy that optimizes your current IT foundation and cost-effectively extends your existing assets to position you for future success.

### **Achieve business flexibility through IT flexibility**

As business conditions evolve, so does your IT environment. New purchases are made over time, which may not integrate easily with existing assets. Systems are set up in silos, which present barriers between departments, partners and elements in your value chain. You may currently be using several business integration approaches to meet these IT challenges. But what you may not realize is that your integration choices should be as much about business as they are about technology.

A flexible IT infrastructure leads to more a flexible business—one that is better able to respond to changing business conditions. And that flexibility can be achieved through end-to-end business integration, based on open standards and utilizing a strategic approach to incorporating integration one step at a time.

Each step of developing your business integration strategy includes making a choice between a propriety solution or a solution built on open, industry standards. Solutions based on open standards can help you minimize the cost and skills required for future changes to your integration environment.

Open standards give you flexibility. The flexibility of plug-and-play interfaces—to more easily and cost-effectively change or modify your technology as your business strategies evolve. The flexibility to better integrate your existing or disparate systems, whether inherited or purchased. The flexibility to free your company from being tied to any one vendor or platform that may—or may not—be compatible with your future business strategies. And the flexibility that allows your IT department to focus its time and resources on other valuable tasks.

**An SOA can increase flexibility**

You can achieve business flexibility by integrating your business processes on a service oriented architecture (SOA). An SOA is an approach to IT that builds business processes and composite applications from reusable component modules or “services” that are independent of applications and the computing platforms on which they run.

The use of Web services—a standards-based implementation mechanism for access and connectivity—has made SOAs a flexible, cost-efficient and scalable way to connect and integrate business assets. Communication relies on open, cross-platform standards that allow different computers with different programs from different functional areas of the business or value chain to work together. An SOA can help you achieve a more seamless integration of business processes and underlying applications and information.

More and more companies are realizing the value of an SOA. By 2006, it is expected that more than 60 percent of enterprises will consider SOA as a guiding principle in designing mission-critical applications and processes. By 2008, analysts predict that SOAs will enable organizations to increase code reuse by more than 100 percent.<sup>2</sup>

An IT environment based on an SOA can help you meet your business integration challenges. It can help create a more productive business. It can make it easier for business people to have an interactive dialogue with IT staff or even to directly develop and change business processes. And it can offer a giant step in reducing the complexity—as well as many of the costs and risks—of new application development and deployment.

*By 2006, more than 60% of enterprises will consider SOA as a guiding principle in designing mission-critical applications and processes.*

*– The Gartner Group<sup>2</sup>*

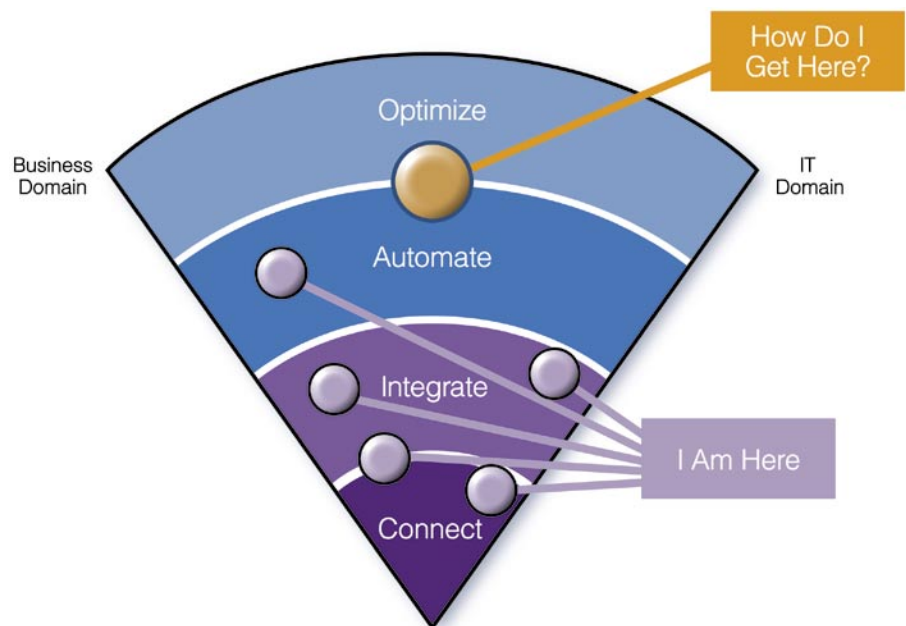
### Business integration adoption: an evolutionary process

At IBM, we believe that implementing an effective business integration strategy is an evolutionary process. It's a step-by-step movement from where you are today to where you want to be in the future, with returns on investments achieved at incremental points along the way. The IBM SOA Adoption Model illustrates this vision. This framework helps companies identify logical incremental projects designed to achieve strategic and demonstrable wins leading to increasing levels of business integration and SOA implementation.

At a basic level, businesses simply need to **Connect** their assets to assure reliable and flexible information flow between diverse applications and systems. Companies at this level of business integration may be looking for better access to information, a reduction in data discrepancies through automated data exchange, or more reliable application access and data delivery. Connecting your business-critical IT assets can help address these issues, assuring a more reliable and flexible flow of information between diverse applications and systems.

Moving to a level higher in sophistication, companies need to **Integrate** across broader, heterogeneous environments. Integration can help increase response to regulatory compliance concerns, mergers, or the need for better access to trading partners. Companies who integrate their environments have been rewarded with reduced inventories, shorter cycles and lower costs through the sharing of information, as well as lower development costs through faster access to reusable assets.

IBM SOA Adoption Model



The IBM SOA Adoption Model is a step-by-step framework that can help you plan for and reach your business integration goals.

From there, companies can **Automate** certain functions to orchestrate business and IT processes and align IT with business goals. By doing so, you can reach faster implementation of business vision, greater productivity through automated process execution, or business flexibility through rapid deployment of IT functionality to support business change. Automation is where businesses are benefiting from flexible and fast delivery of new business functionality.

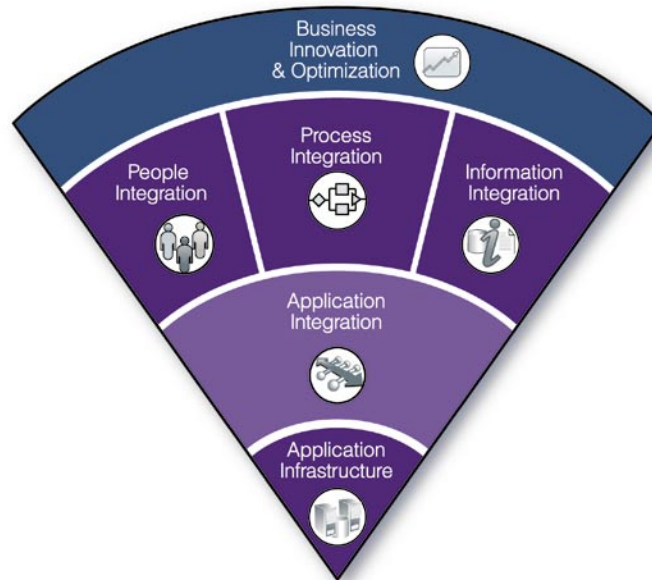
Finally, strategic business integration can help **Optimize** your company's IT environment. Businesses that are at this level are truly using IT for competitive advantage. They are taking a holistic approach to transform and manage their business by aligning strategic and operational objectives with business activities and supporting IT services. They are looking for results like the ability to do predictive decision-making supported by role-based visibility into key performance metrics.

### **IBM can help make it happen**

How do you get from where you are now to where you want to be? IBM can help. With IBM WebSphere® software, IBM is helping lead the way in defining and shaping integration solutions to increase business flexibility and responsiveness. WebSphere software enables business integration through a set of integration and infrastructure capabilities. These capabilities are enabled by a modular product portfolio based on open standards and delivered on a fully integrated SOA platform.

The integration and infrastructure capabilities of WebSphere software support integration approaches that address individual enterprise needs. They can create incremental business value by helping businesses improve flexibility and achieve operational excellence while maximizing the value of existing IT assets. Specific capabilities are designed to help customers at every stage of the SOA Adoption Model to help create a more connected, integrated, automated and optimized operating environment.

**Integration and infrastructure capabilities of IBM WebSphere software**



IBM WebSphere software has specific capabilities that can help you improve your business flexibility throughout SOA adoption.

**To Connect:** WebSphere software delivers application infrastructure capabilities that can provide a robust, security-rich, scalable foundation on which to run your business and enable a more reliable and flexible flow of information between diverse applications and systems.

When New Zealand retailer Smiths City needed to transform its process of dispatching purchase orders to clients, it turned to IBM WebSphere for a cost-effective application infrastructure platform. The company was dispatching thousands of purchase orders a day—either by e-mail or by printing out and faxing. They wanted to implement a more secure, reliable method of connecting with trade partners, while at the same time reducing keying errors and cutting back on paper usage.

WebSphere's application infrastructure capabilities now provide a foundation upon which Smiths City's business-to-business messaging services can connect. Documents from new and existing applications can be exchanged more reliably. And overall document processing costs and error rates have been dramatically reduced.

“At one time, we faxed thousands of purchase orders a day and just cutting back on all that paper has been an immediate benefit,” says Sim Lee, IT manager at Smiths City. “And we don’t need to reinvent the wheel—whatever we’ve done now for one supplier, it’s quite easy to replicate for all our other suppliers.”

**To Integrate:** WebSphere software delivers application integration capabilities that enable an end-to-end integration framework or Enterprise Service Bus (ESB) that supports interoperability in a heterogeneous environment. Powered by SOA approaches, it all comes together to help remove the barriers to building an integrated architecture.

Travelex—the world’s largest network of airport branches—implemented an open standards infrastructure with WebSphere software that supported its business integration strategy. The company has grown with the help of a large number of acquisitions, leading to a disparate collection of IT systems that are complex and difficult to maintain. As Travelex expanded aggressively into the commercial foreign exchange industry, they needed a solution that would both nurture business-level innovation and enable the company to respond more rapidly to new opportunities. And they needed to integrate the individual components within the IT architecture, preferably without having to rewrite existing applications.

IBM helped Travelex move to an infrastructure that reused core service applications and replaced custom application links with standardized connections. The results were dramatic. Transaction performance improved immediately, and they’ve realized an 85 percent reduction in the time it takes to process foreign exchange transactions. “It’s a robust, flexible platform that makes everyone—on both the business and the IT side—very excited,” notes Travelex’s Peter Beuken, head of IT, Commercial Foreign Exchange.



**To Automate:** WebSphere software enables the integration of processes, people and information to help companies design, automate and manage operational business processes.

Process integration capabilities from WebSphere enable you to model and simulate business processes, integrate and choreograph processes across the organization, extend processes to partners and monitor the real-time performance of business processes. Information integration capabilities from WebSphere enable access to heterogeneous, distributed content and information as if they were in one system. They can also help integrate structured and unstructured information for use in new and existing processes and applications. And people integration capabilities can provide an environment for flexible, personalized interaction with business processes, applications, content and people across the organization for an enhanced, unified user experience.

Siemens Information and Communication Networks (Siemens ICN) is a leading provider of network technology for enterprises, carriers and service providers. With thousands of customers and service units spread all over the world, it was difficult for the company to monitor customer service issues and make global improvements. Siemens ICN lacked an efficient process for handling customer issues and as a result was losing customers. To reverse this trend, it needed to automate. To react faster and more successfully across its global network of call centers through a common set of business processes and customer service delivery tracking systems.

IBM helped Siemens ICN bring its disparate customer service processes together so that it can support automatic, Web-based communications between its call centers. Additionally, the company can now track, sort, analyze and prioritize data regarding customer preferences and requests from its customer service systems around the world for use in developing new customer-driven solutions.

Since integrating these processes with the help of IBM, Siemens ICN has reduced response times and improved customer satisfaction. The company has also accelerated speed-to-market with its customer-demand-driven solutions. And the company can leverage customer preference and behavior data to market new services and target customer-centered promotions.

**To Optimize:** WebSphere software capabilities support companies that want to take a holistic approach to transforming and managing their businesses. Business innovation and optimization solutions from IBM combine market-leading software, industry expertise and best practices to enable you to better monitor, manage, analyze and take action—so you can make smarter decisions, gain competitive advantage and achieve greater performance results.

Financial services company Standard Life is utilizing a holistic approach, in an SOA environment, to reuse functionality in its software development processes. The company has been working towards this business integration goal over the past 10 years, beginning with connecting applications and moving to reusable business services. *ComputerWeekly* reports that Standard Life is now driving 40 percent of its entire IT workload—about 1.6 million transactions a day—through its SOA.<sup>3</sup>

The SOA environment has improved the quality and manageability of in-house applications. And the infrastructure supports three times as many applications with the same number of staff.<sup>4</sup>

### **Make it work for you**

Several key decisions can help your company benefit from business integration. Choosing a service-oriented approach to IT integration through an SOA and using open standards-based interfaces can provide the flexibility that will allow your IT environment to grow and adapt. Another key decision comes with choosing the right integration software vendor. The vendor you choose should:

- *Have experience in protecting investments in application and integration assets, including the ability to easily integrate across heterogeneous environments.*
- *Support integration approaches that address individual enterprise needs and create incremental business value.*
- *Have the tools that empower more people within an organization—from the business analyst to the application developer—to participate in business processes.*

IBM has a proven, broad and deep portfolio of software and best practices to help you realize the value of a business integration strategy—backed by over six years of continuous market share growth and more than 87,000 WebSphere clients. IBM has the experience and resources to help customers along on their business integration journey, with:

- *More than 10 years of investment in integration product innovation.*
- *More than 40,000 developers actively working on Web services applications.*
- *IBM SOA/Web services Centers of Excellence.*
- *Industry-specific frameworks to help customers leverage best practices to solve key challenges in the context of their business.*
- *Services such as JumpStart to help customers apply market-leading innovations to solve immediate business problems.*

And IBM provides the industry's most comprehensive Java™ 2 Enterprise Edition™ (J2EE) and open standards-based integration infrastructure. WebSphere software works with a broad range of existing platforms and operating systems allowing you to connect virtually anyone to anyone while protecting customers' legacy investments. By working with IBM, you can tap into a wealth of valuable standards leadership including:

- *Strong knowledge and application of open standards such as J2EE, Simple Object Transfer Protocol (SOAP), Web Services Description Language (WSDL), XML, Eclipse and more.*
- *Portfolio-wide Web services support to virtualize software assets.*
- *Support for more than 80 operating system configurations.*
- *Integrated ESB support for mobile and wireless applications.*
- *The ability to integrate J2EE, CICS and the non-Java world via a common Web services model.*

### **Learn more**

End-to-end business integration solutions let your company streamline business processes across your enterprise and beyond. Integration can address business challenges, improve productivity and increase flexibility—leading your company on a journey towards being a more responsive enterprise.

IBM is dedicated to providing the modular, flexible business integration solutions to help get you there. For more information about IBM and the business integration capabilities of WebSphere software, visit [ibm.com/websphere](http://ibm.com/websphere) and [ibm.com/soa](http://ibm.com/soa)



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- 1 IBM On Demand Business Impact Research Analysis, December 2004.
- 2 Simon Hayward, "Positions 2005: Service-Oriented Architecture Adds Flexibility to Business Processes," Gartner, Inc., February 16, 2005.
- 3 Cliff Saran, "Standard Life saves £2m in three years by reusing in-house code," *ComputerWeekly*, February 18, 2005.
- 4 Cliff Saran, "Service-oriented model raises software standards," *ComputerWeekly*, February 21, 2005.