

Capitalize on business opportunities and respond to new industry situations:

Quickly extend business applications and connectivity solutions to customers, partners and suppliers with industry data acceleration



Contents

- 2 Introduction
- 2 The challenge of cost-effective enterprise integration
- 4 The proliferation of industry data
- 4 Accelerate industry data integration
- 5 Industry Connectivity Made Easy
- 6 Conclusion

Introduction

Today's dynamic business environments and economic uncertainty mean organizations must work smarter to remain competitive and respond to changing customer demands. One key to working smarter is business agility, ensuring all parts of your organization, internal and external, can quickly and easily capitalize on opportunities and respond to new situations. However, this needs to be done with an eye toward controlling cost.

For many businesses, a primary barrier to business agility and cost optimization is the ability to effectively manage interactions with partners and suppliers and integrate industry data throughout their enterprise. With industry data formats becoming more pervasive and complex, it's imperative that organizations address the integration of partners and suppliers through industry data as a key component of an IT optimization strategy.

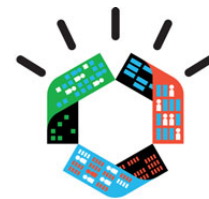
This white paper describes the benefits of integrating industry data, how partner and supplier integration through industry connectivity can help maximize the value and effectiveness of a service-oriented architecture (SOA) or business process management (BPM) initiative, and the IBM® WebSphere® portfolio of products available to achieve such integration.

The challenge of cost-effective enterprise integration

IT complexity and cost often result from an organization's approach to application integration. After more than a decade of various attempts, many organizations still have difficulty connecting with the right information and the right people at the right time, and miss out on opportunities as a result. This is due to a variety of factors, including:

- Unreliable connectivity
- Slow and inflexible application integration
- Higher cost and complexity due to point-to-point connectivity
- An inability to effectively leverage new ways of connecting people, processes and information
- Industry standards with complex data formats and rules

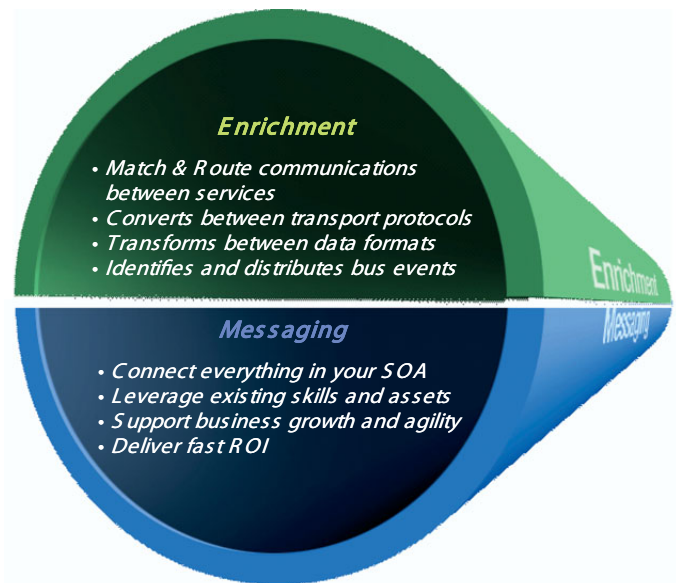
Smart work is about transforming our organizations to take advantage of the capabilities of a smarter planet—so people can make more informed decisions, build deeper relationships and work with more agile and efficient business processes.



Smart work

To meet these challenges, many organizations are turning to Service-oriented Architecture (SOA), as a smart approach to SOA can help align business requirements to IT capabilities, provide a smart SOA connectivity layer to eliminate the complexity of integrating heterogeneous applications, systems and databases in point-to-point fashion, as well as provide a foundation for organizations to dynamically adjust to a changing business landscape and deliver critical business information to the right place, at the right time and in the proper context. Such a foundation enables fast and flexible application integration by decoupling integration logic from each application; easily connecting applications regardless of the platform, network, or device; enabling access to virtually any system through any-to-any-other transformation of data; and exposing existing applications and data as new business services opportunities without impact to the current IT environment.

At the heart of an SOA is an Enterprise Service Bus (ESB) platform. A comprehensive ESB solution has two primary functional areas—messaging and enrichment. Messaging is the reliable delivery of information wherever and whenever it's needed. It allows you to connect everything in your SOA by leveraging existing skills and assets. Enrichment is the augmentation of messages, service calls, files or events with matching and routing communication between services; conversion between transport protocols; transformation between data formats; and the identification and distribution of business events. Enrichment enables the decoupling of the connectivity infrastructure from the integration logic normally developed as part of each application, which simplifies integration of all applications and allows for rapid time to delivery of business services. These messaging and enrichment capabilities provide the flexibility to enable IT departments to change very fast with limited IT resource impact—such as updating or replacing a business service by developing a new composite solution utilizing existing services. These capabilities can enable a much greater degree of reuse than otherwise possible when the application logic is intertwined with the connectivity infrastructure.



One of the most valuable assets in your business is information, and your ability to effectively manage it will determine your businesses competitiveness. With a robust ESB messaging and enrichment infrastructure, you can deliver the right information to the right place at the right time and can provide a first step to application integration and SOA. An ESB bridges the gap between new service-oriented assets and existing core assets, and frees applications from the connectivity logic needed to determine how each application communicates with the others.

SOA integration efforts often focus on the connectivity of internal applications and systems, which is a natural starting point. However, the fact that organizations increasingly rely on a vast business network that spans not only throughout the enterprise to other departments, branches or subsidiaries, but to partners and suppliers as well. An effective integration strategy requires the ability to seamlessly handle industry data and extend internal applications and systems beyond

organizational walls to these partners, suppliers and customers. As a result, an organization's business partners can be brought into business process automation initiatives, positioning themselves for any marketplace situation, while also reducing the cost of IT infrastructure.

Up to 68 percent of executives report that IT integration challenges are inhibiting their collaborations with partners.¹

The proliferation of industry data

IBM's 2008 Global CEO study cites that "CEOs are moving aggressively toward global business designs, deeply changing capabilities and partnering more extensively. CEOs have moved beyond the cliché of globalization, and organizations of all sizes are reconfiguring to take advantage of global integration opportunities." However, up to 68 percent of these same CEOs report that IT integration challenges are inhibiting their ability to integrate globally and collaborate with partners.

Whether it's an expanded partner network through a globalization strategy or an ongoing initiative to reduce costs and improve efficiency, the net result is increased pressure on businesses to integrate third-party systems and information with internal applications and processes, further highlighting the need to overcome the IT integration challenges of partner collaboration the CEOs in our survey speak of.

A big part of that challenge is the ability to handle industry data. In many industries such as healthcare, financial services, banking, and insurance, standards organizations and government bodies are regulating how information is transmitted between business partners. For instance, in the United States the Health Insurance Portability and Accountability Act (HIPAA) included an electronic data interchange (EDI) provision, which requires most medical providers to file their

electronic claims using the HIPAA/EDI standards. The international banking community conducts business using a set of messaging standards defined by the Society for Worldwide Interbank Financial Telecommunication ("SWIFT"). Across a range of industries such as retail, chemical & petroleum and distribution, to name a few, an entire set of Electronic Data Interchange (EDI) formats has evolved to standardize the exchange of information.

At first glance, adhering to these industry standard data formats may appear straightforward. Many organizations believe the most cost-effective means of compliance is with home-grown or custom-coded solutions. However industry transformation and integration can be complex and expensive. Industry data exchange requires an organization to become intimately familiar with complex data formatting standards and comply with guidelines for implementing those standards. It requires organizations to keep pace as those standards evolve and in some cases requires adherence to bilateral service-level agreements, guaranteeing delivery, complete auditability and traceability for all transactions. Security, reliability, error resolution and the ability to integrate seamlessly with an organization's SOA strategy further complicate the task of integrating industry data. Without a lengthy and resource-intensive development effort, it's unlikely a custom-coded solution would sufficiently address all these potential requirements. And it would ultimately add to IT complexity and cost.

Accelerate Industry Data Integration

So why is industry connectivity important and what are the real benefits it can provide? First, consider the ability to incorporate partners into automated business processes; reducing administrative overhead and eliminating the potential for human error. With automation comes the capacity to expand supplier and partner networks for increased supply chain flexibility, expanded marketing and sales channels, access to more customers around the globe and expanded revenue opportunities. Industry connectivity will provide a higher degree of data integrity, accuracy and security; eliminating the propagation

of erroneous or sensitive data through an organization. For your customers, partners and suppliers, it provides an ease of doing business, increases their level of satisfaction and can result in lower cost of goods and services for a business.

To realize these benefits, organizations require a simple, seamless and robust approach to industry connectivity. An approach that...

- Integrates with existing SOA and connectivity infrastructure
- Eliminates the need for an organization to understand complex data formatting standards
- Provides mission-critical quality of service
- Can provide any-to-any data transformation without the need for coding

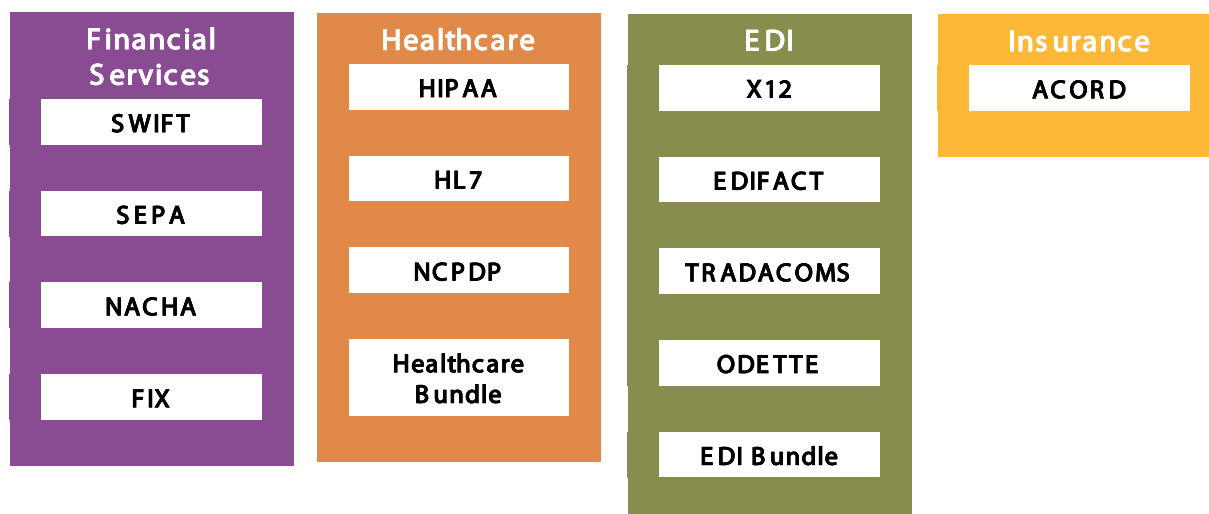
Without these characteristics, an industry connectivity solution simply becomes another drain on IT resources and budgets and diverts an organization from its goal of simplified connectivity and reduced costs.

Industry Connectivity Made Easy

IBM provides a smart approach to industry connectivity with WebSphere Transformation Extender (WTX). WTX extends the reach of an ESB beyond organizational boundaries to integrate customers and partners with back-end systems through industry data.

WTX tooling integrates with the full portfolio of IBM ESBs, including WebSphere bvgMessage Broker, WebSphere Enterprise Service Bus and the WebSphere DataPower® Integration Appliance XI50. It's also compatible with third-party Application Servers and custom programming environments, allowing industry connectivity to seamlessly integrate with a wide range of IBM and third-party SOA and BPM solutions.

Predefined industry packs provide out-of-the-box capabilities to integrate a range of industry standard data formats, including:



As standards evolve and are updated by governing bodies, IBM provides easy-to-install pack updates, eliminating the need for organizations to keep abreast of changes and helping to protect existing investments year after year.

Extending connectivity to customers and partners with WebSphere Transformation Extender allows organizations to alleviate the burden of industry connectivity while delivering its full benefit.

Conclusion

Many organizations have embraced SOA as a means to untangle enterprise connectivity and eliminate point-to-point integration solutions, but continue to use antiquated manual processes or point-to-point connectivity solutions when transacting with customers, partners and suppliers. The same SOA infrastructure and principles that apply to eliminating point-to-point connections and untangling connectivity within an enterprise can be applied to integrating customers, partners

and suppliers. In fact, the SOA foundation used by many organizations, the Enterprise Service Bus, can easily extend to integrate systems outside organizational boundaries.

Although the ESB itself may not have the ability to integrate industry data, the addition of WebSphere Transformation Extender with Industry Packs can provide this capability. Since WebSphere Transformation Extender integrates seamlessly with IBM's ESB portfolio, developers can quickly and easily create and deploy industry connectivity solutions. And, with easy-to-install industry pack updates, ongoing maintenance of a solution is minimal.

Effectively, industry connectivity can extend an SOA and BPM platform beyond organizational boundaries, delivering greater business agility and positioning business for an increasingly global market place. And to that end, IBM's integrated industry connectivity tools provide a solid platform for the future.

For more information

To learn more about Industry Connectivity and IBM WebSphere Transformation Extender, please contact your IBM marketing representative or IBM Business Partner, or visit the following Web site:

ibm.com/software/websphere/products/appintegration/extend-connectivity/



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Route 100
Somers, NY 10589 U.S.A

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¹ IBM, The Enterprise of the Future: Global CEO Study, May 2008, <http://www-935.ibm.com/services/us/gbs/bus/html/ceostudy2008.html>



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