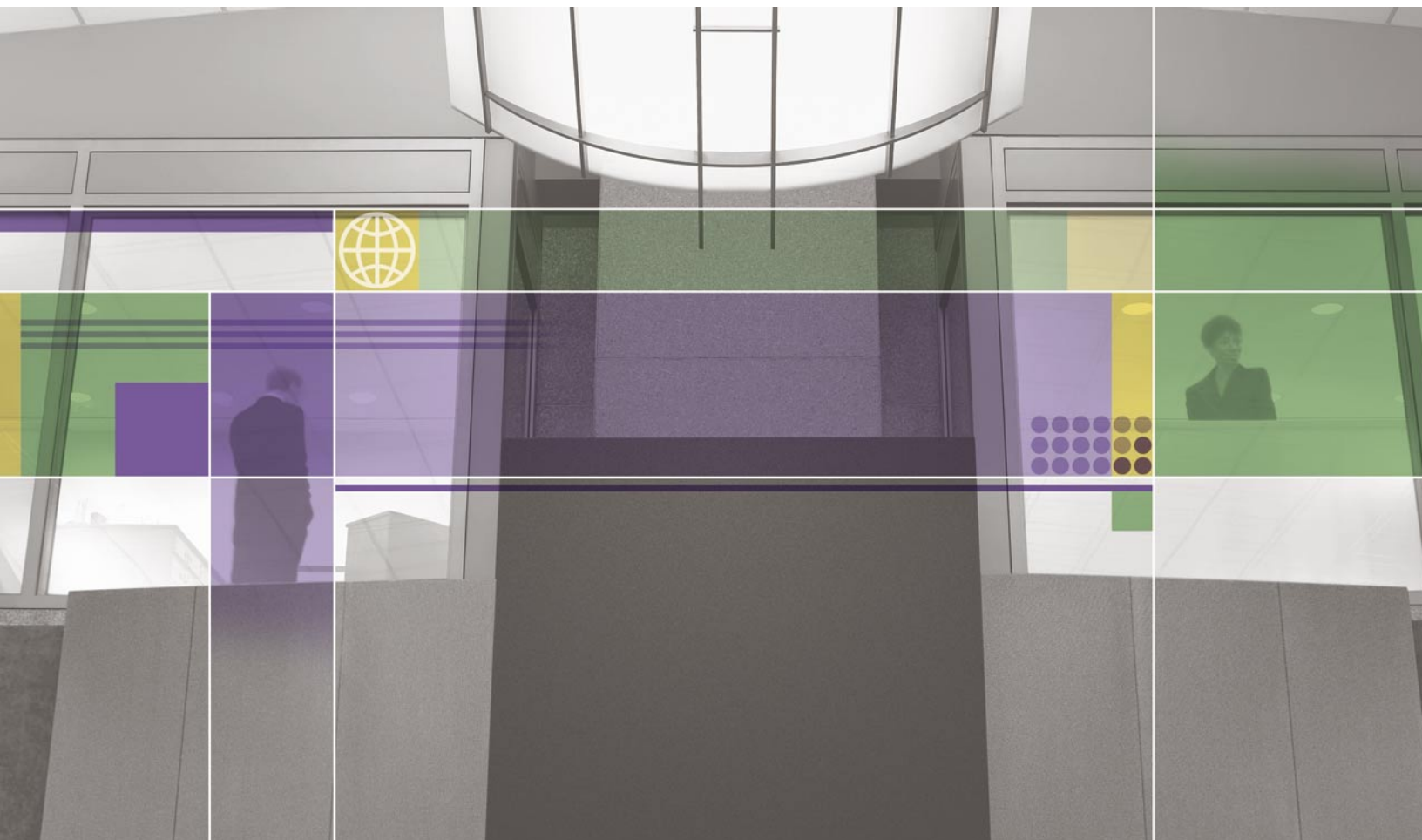


WebSphere® software



**Achieving flexibility through application integration.**

# ***Integrate, connect and mediate between disparate applications, platforms and databases.***

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### **Executive overview**

To be an on demand business, a company must remain flexible, while making intelligent choices about when and how to invest in technology infrastructure. Most enterprises have tremendous legacy applications, platforms and processes that continue to serve them. But these legacy assets may not support rapid response to changing business conditions. Nor can these disparate pockets of information typically communicate with one another or change their interactions in any sort of seamless fashion. What's required is an end-to-end approach towards integration that supports connectivity and mediation between platforms and applications. When this is achieved, the return on investment becomes not just visible, but dramatic, and an enterprise can focus on success within its business. IBM WebSphere® software offers application integration capabilities to exceed this goal, allowing a business to implement Service Oriented Architecture (SOA) as the framework and Enterprise Service Bus (ESB) as the key enabler.

### **Achieving on demand flexibility in a changing business climate**

Changing business conditions in a new, constantly re-aligning global economy calls for a type of flexibility that is difficult for many companies with rigid business infrastructures to achieve. All too often, changes in business processes and requirements are driven by factors outside the business and outside the company's ability to plan. While most enterprises have invested millions of dollars implementing applications to run their businesses, most CEOs say their companies are still not able to adapt quickly enough to change. In fact, according to a recent survey, only 10 percent of CEOs believe their organizations have the ability to be very responsive to changing business conditions.<sup>1</sup>

Yet business flexibility can be achieved through IBM's concept of an on demand business, one where business processes are integrated end-to-end across an enterprise as well as with key partners, suppliers and customers, allowing the company to respond with speed to any customer demand, market opportunity or external threat. The payback can be monumental: companies farther along in their journey to become on demand show stronger results than others in their industry, growing earnings 15 points faster than their peers and achieving ROI 1.2 points faster.<sup>2</sup>

Becoming on demand requires a focus on three things: business design, technology infrastructure and effective end-to-end integration. Lose sight of any one of these and the enterprise's IT can fail to deliver. Keep an eye on all three and the enterprise can hit all cylinders for maximum responsiveness.

### **Overcoming integration challenges**

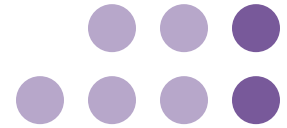
The greatest IT challenge an organization can face is in determining (and then executing) how to bring together disparate applications, platforms and information to support its on demand business. The biggest reason that a business and its processes are not responsive and flexible is that its applications have trouble exchanging information. Applications may be written using different programming languages or may utilize different programming models and data representations. The applications may also be hosted on different platforms or may run and generate their data and events in different time periods.

Custom integration programming, which some companies believe is an alternative, can contribute to these flexibility challenges by being initially expensive in consuming valuable and scarce programming resources and by leading to very expensive maintenance roadblocks. When parameters and requirements change, such as when new features are added or a line of business is expanded, companies are forced to spend significant resources and incur large costs re-customizing the integration point. The solution that addresses these challenges is end-to-end integration — envisioned as a multi-tiered process over time, delivered through IBM WebSphere solutions.

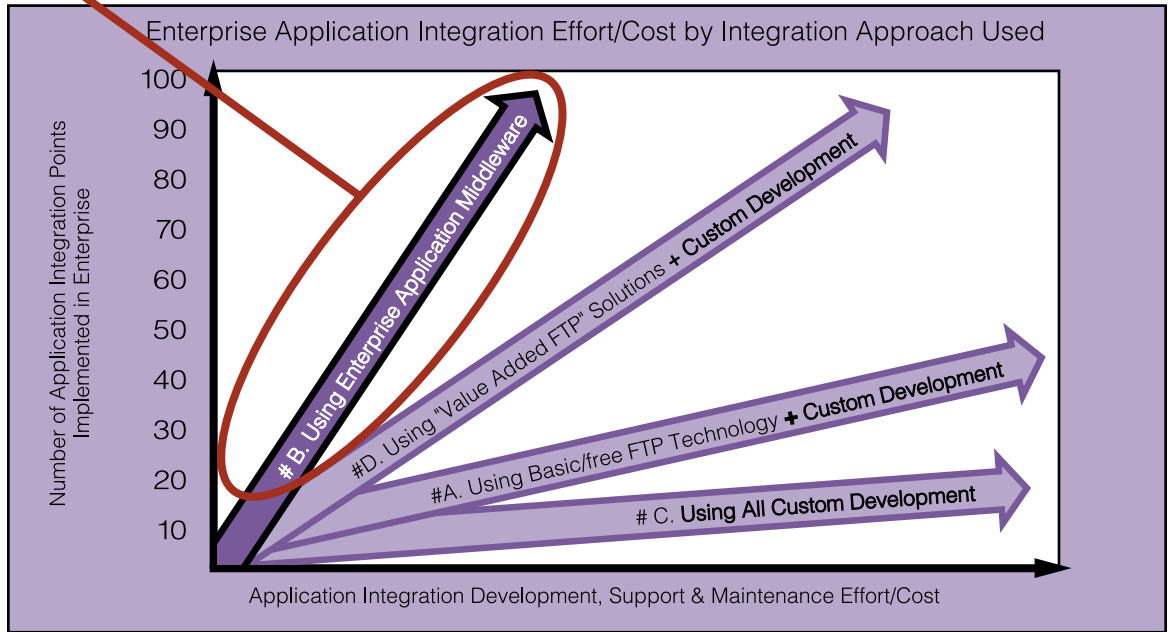
### **IBM WebSphere solutions are the key to on demand business**

IBM WebSphere software enables on demand flexibility through a set of integration and infrastructure capabilities. These capabilities are designed to help businesses innovate interactions, improve flexibility and achieve operational excellence with IBM's proven WebSphere product offerings.

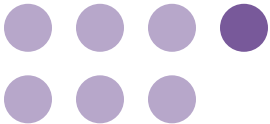
Using IBM's Service Oriented Architecture (SOA) as the framework and Enterprise Services Bus (ESB) as a key enabler, WebSphere offers new models for adoption that overcome challenges of scalability and integration while taking organizations beyond familiar technologies that will allow a business to maximize its potential. With IBM's application integration capabilities, data no longer needs to be tied to an individual application's business logic in order to be reused or reapplied on other contexts. Instead, it can be shared descriptively and intelligently between dissimilar applications across an entire organization.



According to a report by Software Strategies, application integration based on middleware from vendors like IBM costs up to 4 times less than integration solutions engineered in-house. The more applications you integrate, the more you save.<sup>3</sup>



Source: Software Strategies



Nor does the story stop at simply data. The true story is about end-to-end integration. IBM's application integration capabilities can help to integrate people, processes and information across multiple platforms. These capabilities can help make application connections more dynamic — helping businesses improve responsiveness and efficiency. Application integration is a fundamental part of streamlining business processes. It can also help reduce the burden of maintenance, reuse your existing IT investments and minimize the effort associated with new connections or modifications.

### **The profound impact of WebSphere on process and business integration**

WebSphere can have an impact on both business process and business integration, and can make a visible difference in the success of deployments.

The process benefits include the ability to:

- Exchange data reliably between different mission critical applications.
- Adopt a standards-based approach to integration.
- Manage data exchanged between multiple applications as required by changes due to acquisition or department consolidations.
- Replace or better exploit current Electronic Data Interchange (EDI) solutions.
- Decrease “supply chain” cost and improve responsiveness driven by business-to-business interactions.

The benefits to business integration include the ability to focus on a variety of IT requirements that support business compliance as well as messaging requirements. With increasing regulatory compliance obligations, more and more companies are seeing increasing needs to connect applications with a high degree of reliability and information transparency. They must also provide more security while continuing to manage an effective exchange of information. IBM's application integration capabilities can help organizations in meeting their obligations for regulations such as Sarbanes-Oxley in the United States or the Markets in Financial Instruments Directive (MiFID) in Europe. At the same time, application integration also helps address overall messaging requirements and how an organization's people, processes and information need to be melded.

The impact on deployment from application integration can be felt both today and tomorrow. Application integration solutions can help IT simplify moving information between sources — leading to reduced implementation time, cost and risk of integration projects. With these WebSphere solutions in place, future integration projects can be built on standards-based, proven technology that is able to grow and change as business needs dictate.

### **Fortis Bank meets new business transformation challenges with WebSphere**

*Fortis Bank is an integrated financial services provider active in banking and insurance. The organization ranks among the top 20 financial institutions in Europe. A decade ago, Fortis invested in WebSphere MQ to develop its client-server applications. At that time, the organization's model aims were to distribute business logic and to centralize all communications between potential clients and servers (essentially IMS) using a unique solution.*

*Fortis selected WebSphere MQ for the following reasons:*

- *A large number of supported platforms*
- *Robustness*
- *Simplicity and openness of the messaging model*
- *IBM as a partner ensures long-term evolution and support of the solution*

*To meet its new business transformation challenges, Fortis Bank decided to put in place a Service Oriented Architecture (SOA). SOA is now the key strategy for its application architecture. Using WebSphere MQ and WebSphere Business Integration Message Broker, the organization now implements cross-border, cross-channel and e-business applications. Increasing the level of decoupling of these applications was also essential to meeting Fortis' cross-border and cross-domain requirements. WebSphere technologies enabled the organization to reuse front-end and back-end applications. They also allowed Fortis to manage near real time and high-volume operations.*

### **KLM soars with WebSphere solutions**

*International airline KLM Royal Dutch Airlines (KLM), a part of KLM Group, had an IT infrastructure comprised in numerous disparate legacy systems, many of which dated as far back as 1968. As the airline extended its services worldwide, it connected new facilities using a wide variety of non-standardized point-to-point interfaces. Lacking a centralized management system opened KLM up to potential communication errors and loss of information. It also created a cascade effect whereby a change to one system required subsequent adjustments to each system.*

*The open, security-rich WebSphere MQ operating environment provided KLM with centralized administration capabilities that allow flight schedules, status and reservations data to be transported between the various different systems in use at KLM's facilities and received into message queues. IBM WebSphere Business Integration Message Broker software then automatically routes messages to their proper destination based on the type of message (static reporting) and even based on the content of the message (dynamic routing), eliminating manual handling of messages. Message Broker also transforms messages into the specific format desired by the receiving system, further simplifying the exchange of data. And because the platform uses open standards, it can easily perform bridging services to connect KLM's facilities with partners and customers.*

*With the increased flexibility offered by IBM WebSphere, KLM has reduced its total cost of ownership for its messaging systems and has the flexibility to expand its systems and easily integrate with new partners as the company grows.*

### **New ways to connect and mediate between applications**

IBM's application integration capabilities can connect applications to help businesses exchange information from one application or source of data to another, across multiple platforms. This can assure delivery of messages between virtually all types of applications on virtually all types of platforms, allowing for legacy applications to continue providing value without requiring high support or maintenance costs.

WebSphere MQ is the market leader in this type of message-oriented middleware. It can reliably and manageably exchange information across different platforms, integrating new and existing business applications and Web services. Additional WebSphere products including WebSphere Application Server can be used to support connecting and mediating between multiple applications, databases or platforms.

WebSphere integration solutions for mediating between applications and extending out to include partners' applications can help reconcile differences between various internal applications and those of trading partners. Companies can use this solution set to mediate the differences between data formats, protocols and operational and business systems, increasing the utilization of business data and improving the return on assets.

IBM delivers software to help deploy an end-to-end Enterprise Service Bus (ESB) — essentially an enterprise integration backbone — that can further unify and standardize an enterprise. An ESB enables software applications to communicate with little or no disruption — even those applications that are written on different platforms, in different programming languages, or that use different programming models. Based on WebSphere MQ, the ESB can further incorporate many of the products included in the application connectivity and application and partner mediation offerings as needed.

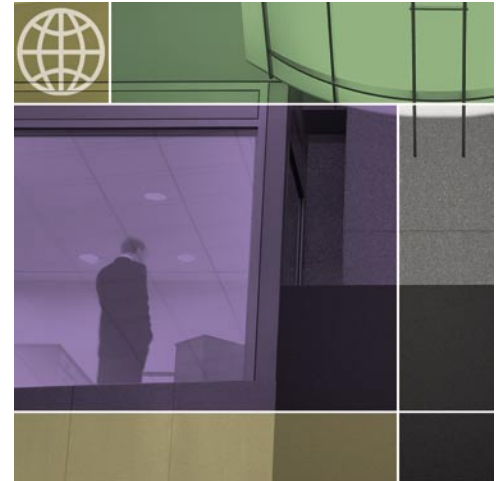
### **No one integrates like IBM**

IBM's middleware platform extends beyond WebSphere to include infrastructure management capabilities, including security, provisioning and infrastructure orchestration. Our focus is on helping you increase business flexibility while efficiently reusing your existing IT investments. IBM is a leader in integration innovation. No one integrates IT more openly, more easily, with more proven experience than IBM. Over 120 patents have been filed for innovations in WebSphere MQ and WebSphere Business Integration Message Broker. This proven SOA expertise can help you:

- Re-use your software assets through unique, portfolio-wide Web services.
- Enable integrated supports for mobile and wireless applications with IBM's ESB.
- Focus on open standards leadership - our belief that our customers do best when they can maintain maximum flexibility.

### **Learn more**

To learn more about application integration capabilities from IBM, visit [ibm.com/websphere/applicationintegration](http://ibm.com/websphere/applicationintegration)



### **Groupe Danone connects with WebSphere**

*IBM Business Consulting Services helped the global food manufacturer Groupe Danone design and implement an application integration solution based on WebSphere Business Integration Message Broker for its French operations. WBI Message Broker now acts as an information mediator in charge of all communication between THEMIS, hosted by IBM, and Danone France's internal legacy systems.*

*Danone France's legacy systems are distributed throughout Danone's organization, including its headquarters in Levallois Perret, six remote plants and nine remote logistic platforms. WBI Message Broker connects to the customer's legacy systems through WebSphere MQ using an asynchronous transport and file adapter. These interfaces must be asynchronous and near real-time because availability is critical to Danone's business operations — even a 15-minute interruption could stop production lines. The EAI hub is hosted on a high-availability cluster server. Additionally, a specific GUI application has been developed for activity tracking, including auditing processed messages, recovering errors and updating routing rules.*



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- <sup>1</sup> IBM Global CEO Survey, February 2004.
- <sup>2</sup> IBM On Demand Business Impact Research Analysis, December 2004.
- <sup>3</sup> Enterprise Integration Challenge: Vendor Middleware-based Integration Solutions Offer Major Advantages Over Custom In-house Solutions, Software Strategies, 2nd Edition, April 2005.