

Smart SOA application integration with WebSphere software
To support your business objectives

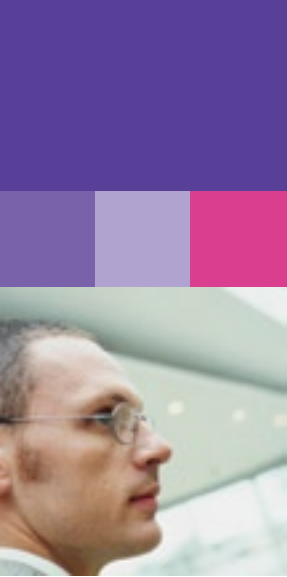


WebSphere software

Achieving business agility and cost optimization by reducing IT complexity.

The value of adding ESB enrichment to your existing messaging solution





How agile and optimized is your business?

Today's dynamic business environments and economic uncertainty mean organizations must work smarter to remain competitive and respond to changing customer demands for better and newer products and services at lower costs. Working smarter means your business needs the agility to take advantage of new revenue opportunities and address competitive threats. And you need to optimize costs by slashing operational and maintenance expenses while increasing efficiency. For many businesses, a primary barrier to business agility and cost optimization is IT complexity. In order to achieve business goals, IT must be able to quickly and easily deliver on the needs of the business while supporting innovation.

IT complexity and costs often result from an organization's approach to application integration. After more than a decade of differing approaches, 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 and integration.
- An inability to effectively leverage new ways of connecting people, process and information.

However, these challenges can be met with an IBM SMART SOA™ approach that can integrate applications and services via an enterprise service bus (ESB) solution that ensures your business gets the right information to the right place at the right time and ultimately delivers the business agility and cost optimization you need to succeed.

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 service-oriented architecture (SOA) by leveraging existing skills and assets. Enrichment is the augmentation of messages with matching and routing communication between services, conversion between transport protocols, transformation between data formats, and identification and distribution of business events. These messaging and enrichment capabilities provide the flexibility to enable the IT department to change very fast with very limited IT resource impact—such as the updating or replacement of a business service, or the development of a new composite solution leveraging 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.

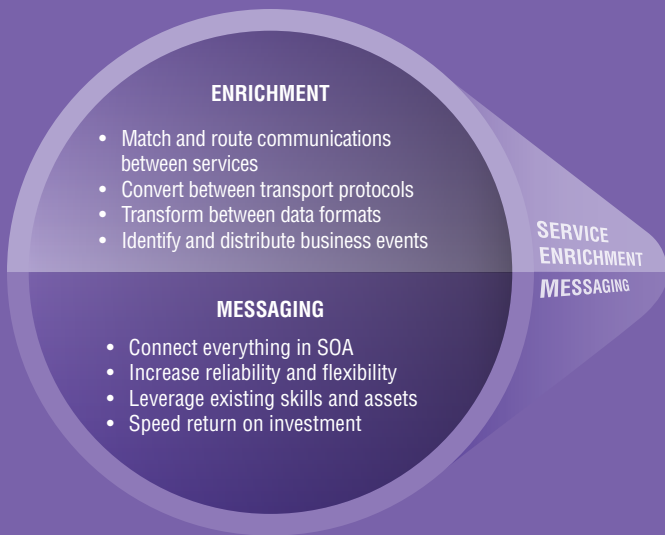




“The solution enables us to view our IT landscape less as a set of separate systems, and more as a set of components or services that can be combined to serve business needs. For the moment, the main advantage is the reduction in complexity and the ease with which we can incorporate new systems into the environment—but as we plan our move toward a full SOA strategy, this solution from IBM and CSI should help us rapidly build composite applications that map closely to our business processes.”

—Paul Manley, head of IT systems development, Cattles





An enterprise service bus solution has two primary functional areas — enrichment and messaging.

“IBM is the only vendor in the market that has both a transport layer and a message broker layer for complex routing and transformations. We have never lost a message with [WebSphere] MQ and [WebSphere] Message Broker [software] and we have been very satisfied with the products in our shop. IBM has the products integrated out of the box for us and it is easier for us to build the enterprise service integration bus around [a] single vendor like IBM who is able to support all the layers necessary for the bus. IBM provides integrated, cost-effective solutions and makes it easier for smaller plans like BCBS of Kansas City to be effective in the marketplace.”

—Erik Brokaw, enterprise architect, BCBS of Kansas City

Reducing integration challenges while controlling cost and complexity

ESB messaging and enrichment solutions from IBM can help you achieve significant improvements in your integration strategies.

Establish secure and reliable messaging

A messaging platform should provide proven, secure and guaranteed transport, ensuring that applications and services receive business data intact, without loss or corruption, and reducing the disruption caused by data loss. For example, a banking application handling the transfer of funds between accounts cannot afford unreliable delivery, or the business will be unable to deliver on the service-level agreements required to maintain competitiveness. Reliable messaging allows your SOA, applications and business to reliably deliver information.

Optimize your investments with messaging plus enrichment

Many of you have taken first steps toward an ESB solution deployment with a messaging platform because it provides you the ability to connect everything to everything. However, to optimize investments for application connectivity and integration, successful organizations supplement messaging with ESB enrichment. IBM ESB products deliver enrichment capabilities that supplement your messaging platform to provide a unified and simple solution for untangling costly and debilitating IT complexity across three key areas:

- Fast and flexible application integration
- Reduced integration cost
- Next-generation interconnectivity



Enable fast and flexible application integration

To achieve business agility, you need to deliver products and services faster to the marketplace. And to deliver products and services faster you need to rapidly share business data and information across enterprise applications to provide new insights and productivity for your business with minimal time and resources.

While messaging supports guaranteed delivery of business information, ESB enrichment enhances this with routing, mediation, transformation and distribution of messages and events across applications for rapid integration without the extensive coding and maintenance that comes with point-to-point connectivity. ESB enrichment enables the decoupling of integration logic normally developed as part of each application. When removed from each application instance, this simplifies the integration of all applications and allows the flexibility and rapid time to delivery of your business services. For example, an insurance provider needs to connect multiple legacy applications, databases and systems to handle a claim. If the applications are not able to integrate quickly and easily, claims processing can take many days. But claims processing time could be significantly reduced by leveraging an ESB enrichment solution, creating a significant advantage in the marketplace and improving operational efficiencies and customer service.

“WebSphere Message Broker provides proven performance, throughput and availability necessary to run the important tracking applications. It takes data from different sources such as [Microsoft®] .NET and IBM WebSphere MQ [software], transforms the data and pushes it out to the database. It gives us the flexibility we need to keep applications running.”

— First assistant engineer at the consulting company for a postal organization, United Kingdom





“One of the most important contributions we are making is to encourage a more strategic way of thinking about integration. We are helping the client move away from best-of-breed point solutions, and toward a more end-to-end approach leveraging a coherent suite of integration tools. In our opinion, the only company with a portfolio of tools capable of embracing the full complexity of the client’s extended infrastructure was IBM. Connecta helped the client deploy an IBM WebSphere DataPower® Integration Appliance XI50 — a purpose-built hardware enterprise service bus that works with existing WebSphere MQ and WebSphere Message Broker technologies to provide a high-performance messaging hub, capable of processing more than 8 million messages per month.”

—David Logg, sales director at Connecta

“From an investment point of view, it is more cost-effective for us to use SOA than to purchase more siloed products that will just have to be replaced by more integrated, reusable technologies, which will cost us in the long run. Technology becomes a burden if we cannot reuse it.”

—Official, District Health Bureau

Reduce integration cost

For fast and flexible application integration you not only need technology, but you also need the right skills and resources to develop application-to-application connectivity. Over time as your needs for integration grow, organizations often keep adding complexity and costs for development and maintenance of these point-to-point connections.

IBM delivers cost-effective ESB messaging and enrichment solutions to help eliminate the redundant and complex integration programming needed to connect multiple business applications, thereby freeing up budget and personnel for new IT projects. Further, ESB enrichment capabilities from IBM are seamlessly integrated with the reliable messaging capabilities of IBM WebSphere® MQ software. This allows you to leverage existing WebSphere MQ assets, skills and resources, thereby reducing ongoing development and maintenance costs. By leveraging messaging plus enrichment, many customers have achieved rapid return on investment—in as few as six months.

Bridge to next-generation interconnectivity

Flexibility and costs are not the only two barriers for successful application integration. Another challenge is addressing continuously emerging technologies and standards while quickly accessing business information across people and processes. You need to adapt a solution that provides support for a complex and broad range of connectivity. An ESB messaging and enrichment solution from IBM can help you create new, low-cost services by seamlessly bridging Web 2.0 technologies—such as Representational State Transfer (REST), asynchronous

JavaScript and XML (AJAX) and HTTP—to your back-end, legacy or core applications that were not originally intended to integrate with Web 2.0 applications. ESB solutions from IBM also provide universal connectivity infrastructure with built-in interfaces for many applications such as enterprise, mobile, real time and telemetry—that extend the reach of business data and applications connectivity out to mobile handheld devices and embedded devices such as sensors or actuators. These capabilities can help your businesses to be smart and agile in a global competitive environment.

Governance, security and management of services and applications across ESB domains is critical if you have multiple ESB technologies. ESB federation capabilities support quick and easy connectivity across domains without complexity. Federated ESBs form a single and logical infrastructure that enables sharing of data, applications, resources and skills and can ultimately reduce integration costs and complexity. For example, for a telecommunications service provider to be competitive in the industry, it needs to offer highly differentiated services based on the latest technology to enable its users to access business information from any place at any time using any device. The provider needs to do back-end integration across lines of business and departments or even partners or customers. In such cases, ESBs supporting federation capabilities can set you apart from the competition and provide a strong SOA foundation that prepares you to support dynamic and future integration needs.

Accelerate industry data delivery

Finally, it is important to note that many ESBs are deployed as part of an overall solution within a specific industry like health-care, finance, insurance or others. Each industry has unique standards for communicating and sharing information between organizations, which requires developers to understand unique and sophisticated communication protocols and data formatting requirements, and to write custom transformation code to support compliance. Testing, certification, ongoing maintenance and coding changes as standards change become heavy burdens on development organizations. Coupled with an ESB, IBM WebSphere Transformation Extender industry packs help reduce the complexity and ongoing maintenance associated with industry data exchange and compliance. By adding WebSphere Transformation Extender software, organizations can rapidly deploy industry transformation solutions, eliminate the need to develop specialized industry transformation skills and seamlessly integrate customers and partners through industry transactions with your enterprise and business processes. In one example, a healthcare provider achieves Health Insurance Portability and Accountability Act (HIPAA) compliance and reduces the cost of billing administration by more than 50 percent with the use of WebSphere Transformation Extender industry packs on top of their ESB messaging and enrichment solution from IBM.

ESB messaging and enrichment solutions are the foundation of an IBM SMART SOA approach, a set of guiding principles developed by IBM that are based on our experience with helping clients deploy SOAs. IBM portfolio integration across SOA and business process management (BPM) products can help ensure that your investments are optimized and IT agility is cumulatively increased.





Why IBM?

IBM WebSphere software provides businesses with a SMART SOA approach to untangle costly and debilitating IT complexity associated with point-to-point connectivity and integration, while maintaining the highest levels of reliability.

IBM WebSphere MQ software has been a leading messaging transport product family for more than 15 years, is used by 10,000 clients worldwide and includes more than 80 platforms.

One size does not fit every business. IBM provides a choice of ESBs for easy and quick deployment based on the best suitability of your environment, skills, resources and requirements. IBM WebSphere Message Broker software is designed for universal connectivity and transformation in heterogeneous IT environments. IBM WebSphere Enterprise Service Bus software is optimized for IBM WebSphere Application Server software for an integrated SOA and BPM platform. The IBM WebSphere DataPower Integration Appliance XI50 purpose-built hardware helps provide simplified deployment and hardened security features.

ESB solutions from IBM and WebSphere MQ software can deliver a comprehensive ESB messaging and enrichment solution that drives fast, flexible and reliable application integration with reduced cost and complexity and establishes a SMART SOA foundation.



For more information

To learn more about achieving business agility and cost optimization using ESB messaging and enrichment solutions from IBM, contact your IBM representative or IBM Business Partner, or visit:

ibm.com/software/websphere/products/appintegration

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