



WebSphere software

Service connectivity.

Scenarios supporting the connectivity SOA entry point



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Achieve new levels of flexibility in linking the software that runs your business

In order to integrate the people, processes and information in your business, it is necessary to ensure seamless flow of information from anywhere at any time using anything. Although connectivity has long been a requirement in business environments, service-oriented architecture (SOA) brings new levels of flexibility to such linkages. The connectivity provided by an SOA has a distinct value on its own and as a building block for additional SOA initiatives.

This executive brief describes three examples of how you can improve connectivity across and beyond your enterprise to improve organizational flexibility and responsiveness. These approaches can help combat the complexities associated with programming and coding that lead to application “spaghetti.” And they can help accelerate the implementation of your SOA and hasten your return on investment. The brief’s final objective is to help you map out a successful strategy for building an easy-to-define and easy-to-manage SOA.

Connect the assets and services that support your business processes

Over the years, most companies have built their IT environments using multi-vendor systems that cannot effectively communicate with one another. The myriad of heterogeneous systems makes it difficult to connect applications and processes. Given the complexity of these environments, they are

Innovation is all about the ability to change quickly, easily and economically. Innovation that matters is all about differentiating yourself in your market. Recognizing market needs and responding more quickly than your competitors with innovative business models, products and services are what make your business grow. But how can you achieve innovation that matters when your business is only as flexible as the IT environment that supports it? An SOA helps you innovate by enabling your IT systems to adapt quickly, easily and economically to your changing business needs.

expensive to manage and difficult to integrate. To overcome these challenges and improve the flexibility, cost-effectiveness and responsiveness of operations, connectivity is essential. And to facilitate connectivity, you need to:

- *Enable any-to-every linkage and communications between applications, processes and people inside and beyond your company.*
- *Access the timely business information required to make rapid and informed decisions.*
- *Simplify connectivity by decoupling the interface from the application/service.*

You can choose from a number of SOA-based approaches to begin improving connectivity across and beyond the enterprise. Depending on your specific business needs and goals, you can start with one of the following approaches or combine them:

- *Connect internal services*
- *Repurpose whole processes through new business channels*
- *Securely connect to external trading partners and service providers*

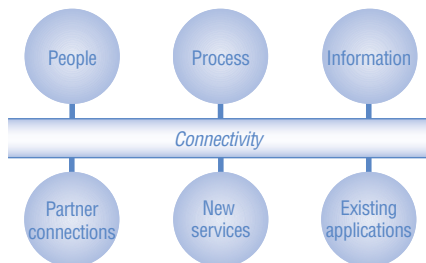
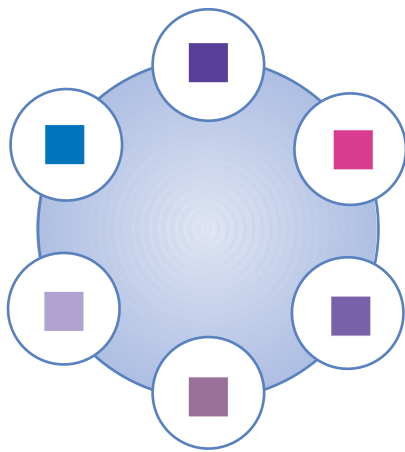


Figure 1. Deliver a security-rich, consistent user experience by extending processes through new business channels and devices



Connect business systems based on open standards

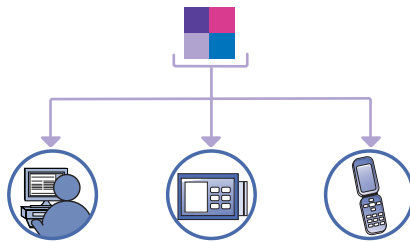
SOA connectivity delivers business value on a number of levels. It enables you to deliver a security-rich, consistent user experience by extending processes through new business channels and devices, and it enables you to strengthen trading partner relationships with well-managed connections. At the same time, decoupling functions and interfaces helps to reduce development and maintenance costs, and you can potentially reduce integration costs by two to four times compared to traditional connections.* In addition, SOA connectivity can help you minimize business complexity and increase flexibility and responsiveness by supporting any-to-every connectivity. As a result, you can access the right information in the right format at the right time.

Connect internal services

A lack of connectivity within companies is one of the most significant impediments to flexible, responsive operations. And it's an all too common situation across many companies. For example, systems and services within a regional office may have the ability to communicate well with each other, but not to connect reliably with central office systems. As a result, it's virtually impossible to access timely information, and collaboration is effectively stymied.

Open-standards-based connectivity simplifies integration between key processes, people and information. It facilitates real-time data sharing and team communication, so your employees can better respond to changing customer and business needs. This kind of connectivity offers:

- *Support for multiple business processes accessing an existing service.*
- *Packaged adapters to plug directly in to dozens of commercial applications (like SAP, Siebel and Oracle).*
- *Built-in, standards-based connectivity to facilitate reuse of what you already have.*



Deliver an existing process through a new business channel

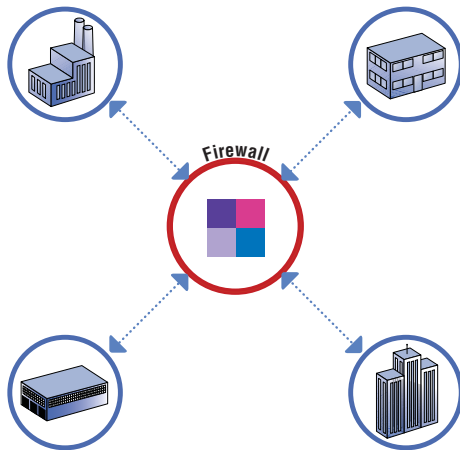
Repurpose a whole process through a new business channel

Your existing business logic is one of the most valuable assets your company owns. With SOA connectivity, you can more easily expand the use of this existing logic into new areas of your business to deliver a consistent user experience across all channels.

For example, you may have an existing business process (such as opening new accounts) that you currently provide to customers through a call center. What if you wanted to give customers the choice to do business with you through a self-service Web portal? Or maybe a kiosk, automated teller machine or handheld device? SOA connectivity enables you to do so without altering—or even touching—the original back-office systems and applications used to support your call center process today. The advanced IBM Enterprise Service Bus (ESB) capabilities make this possible by delivering the right information in the right format to the right destination.

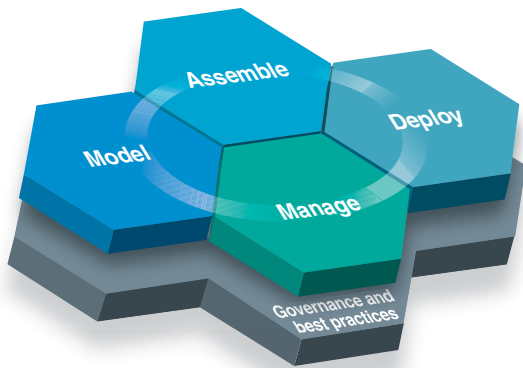
Securely connect to external service providers using a gateway

To optimize the efficiency of your business and overall responsiveness to changing customer needs, close collaboration with external partners is critical. Yet technical inhibitors and security concerns have long prevented companies from scaling to incorporate service providers and trading partners into their businesses.



Securely connect to external third parties and trading partners

SOA appliances enable a hardened connectivity infrastructure so you can establish flexible, security-rich and cost-effective connections between your business and external service providers. You can establish the role that third parties will play and set policies and performance metrics. The appliances provide a drop-in hardware device that delivers state-of-the-art security and performance. You're able to centrally monitor, manage and report on exchanges, service-level agreements and policy enforcement.



An SOA life-cycle approach is the best way to undertake any SOA project.

Minimize SOA project risk

Whatever your approach to connectivity—linking internal services, repurposing whole processes through a new business channel or securely connecting to external service providers using a gateway—SOA projects are best pursued by following the SOA life cycle. You can think of this life cycle comprehensively and approach it tactically by focusing on the phases that provide the most value for you. Underpinning all phases is a governance framework to help you provide guidance and oversight for your projects and implementations.

The SOA life cycle

The SOA life cycle offers a holistic view of connectivity projects in the context of an integrated business and information systems strategy. It spans the four phases shown at left: model, assemble, deploy and manage. Feedback is cycled iteratively among the phases for ongoing process improvement.

The model phase of the SOA life cycle establishes a common understanding of the business processes, objectives and performance metrics. You begin by gathering business requirements and then simulating what-if scenarios to determine the optimum process for achieving desired business outcomes. These optimized processes prescribe how the process should work and provide a baseline from which to measure results. Modeling enables businesses to visualize entire systems, evaluate different options and communicate designs more clearly before taking on the technical and financial risks of committing business and IT resources.

Once the business processes have been optimized, you're ready to implement them by assembling newly created and existing services to form composite applications. The assets are then deployed into a secure and integrated environment, taking advantage of specialized services that provide support for integrating people, processes and information. After deployment, you monitor key performance metrics and performance and use the results to identify ways to refine the business and information design.

SOA governance enables organizations to maximize the business benefits of SOA, which include increased process flexibility, improved responsiveness and reduced IT maintenance costs. It also helps ensure a successful SOA project by establishing decision rights, guiding the definition of appropriate services, managing assets and measuring performance.

Define an SOA connectivity approach that works for you

IBM can help you lay out an approach to SOA connectivity that is right for your business and implement a solution to help you meet your specific goals. We have the technology, know-how and business process expertise to help you link the services that support your business processes, whether you want to connect your internal systems, deliver a process through multiple business channels or link to external trading partners and service providers.

For more information, talk to your IBM representative about your business goals or contact IBM directly at soa@us.ibm.com. Let's get started today!



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* "Enterprise Integration Challenge." *Software Strategies*, 2005.