

## Fostering people's interaction and collaboration through SOA.



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**Increase productivity and encourage innovation**

To encourage efficiency and innovation, companies are looking for new ways to empower people. In the short term, a key need is to improve employee and business partner productivity for greater competitiveness and profitability. To address this need, businesses can provide personalized, streamlined environments for employees to interact with other people and targeted information—in the context of business processes. Over time, companies can encourage greater collaboration among employees, business partners and customers with highly secure, role-based, intuitive and adaptive user experiences.

IBM provides the business and technical expertise and software to help companies enable people-centric interaction and collaboration using Service Oriented Architecture (SOA). An SOA offers a different way to think about organizing business processes and activities—allowing use of functional components to model business processes and align IT to business needs.

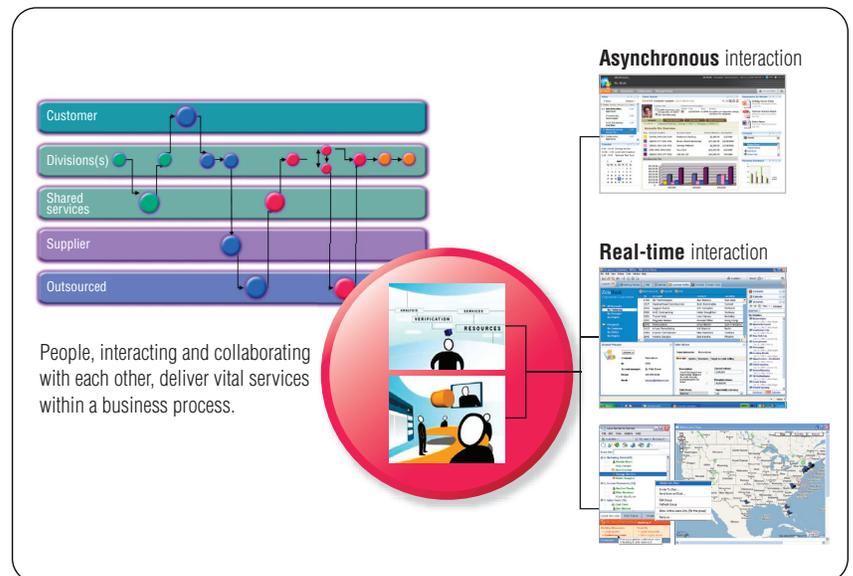
Service Oriented Architecture is a business-driven IT architectural approach that supports integrating your business as linked, repeatable business tasks, or services. SOA helps users build composite applications, which are applications that draw upon functionality from multiple sources within and beyond the enterprise to support horizontal business processes. SOA helps today's businesses innovate by ensuring that IT systems can adapt quickly, easily and economically to support rapidly changing business needs.

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*Innovation is all about the ability to change quickly, easily and economically. Creating innovation that matters is all about differentiating yourself in your marketplace. Recognizing marketplace 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 ensuring that your IT systems can adapt quickly, easily and economically to support your rapidly changing business needs by reducing time to market for system changes and improving flexibility to connect to a wide range of IT resources.*

There is no single, right approach to starting an SOA. It all depends on your specific business needs. IBM has defined a framework of five entry points to SOA: people, process and information as business-focused starting points, and reuse and connectivity as IT-focused starting points. This executive brief explores in greater detail the people entry point for an SOA that enables real-time views of key business processes and organization of information to help people interact effectively, make better decisions and collaborate more freely. People are an integral part of the services delivered through SOA, because they interact with those services to execute business results. People-to-people interaction and people-to-technology interactions using SOA both inside and outside the enterprise can deliver different experiences spanning asynchronous communications through portals and mobile services to real-time communication through instant messaging and collaboration.



People, interacting and collaborating with each other, deliver vital services within a business process.

Figure 1. People are an integral part of the services delivered through SOA, because they interact with those services to execute business results.

### **Redefine how people work together**

Employee productivity, operational efficiency and the ability to innovate on the fly are paramount to competitiveness and growth. Yet innovation and efficiency can be difficult without integrated and flexible business processes that facilitate collaboration.

Many companies struggle with siloed business processes and applications. This fragmentation impedes creativity and keeps employees from working together to solve problems. It also makes it difficult to find critical business information and monitor processes. Addressing this challenge requires strategic solutions that improve interaction—both person-to-person and person-to-systems—and foster collaboration.

The IBM approach to enabling people to interact is business-centric and evolutionary. It is SOA-based and designed to support a long-term innovation strategy while helping you leverage investments in components you have already purchased to make employees more productive. At the core of any sustainable business strategy is the need to enable people with the tools and culture designed to foster change and innovation. We recommend that you begin by evaluating processes and activities for business-critical areas where many applications are needed to execute an activity and where people in different roles require different levels of access to disparate applications and information. These are the prime areas for driving value through people-centric SOA projects.

The benefits of using SOA to build people-facing services are significant. You're able to provide more flexible personalization and access to a wider range of applications and information sources. And you can do so more rapidly with faster creation and deployment and lower ongoing maintenance costs. Most important, you improve responsiveness by being able to incrementally adapt services elements to changing business and market conditions.

Ultimately, people-centric interaction and collaboration are catalysts for an organizational sea change that can affect skills, redefine how people work together and how your organization works with partners to foster a climate for creativity. It can even redefine how you measure outcomes from company initiatives and creative processes—all to help drive innovation.

**Improve portal integration and flexibility**

Many capabilities of portal software make it a natural choice for solutions that allow people to interact with Web and SOA services. Where an SOA drives value is by enabling new ways to build services faster and more flexibly within the portal framework. It also can increase the range of capabilities that can be delivered through portals.

Most enterprises already have large numbers of first-generation Web portals, which simply provide Web-based access to information. These portals often were built using conflicting technologies, making them difficult to integrate. The recent evolution of portals includes more personalized organization and content, improved access to a wider range of custom and package applications through standardized integration technologies, componentization of applications and collaboration tools, such as instant messaging, for team operation and problem solving.

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*Broward Public Schools had pertinent data in more than 300 siloed applications. The district needed to integrate this data for a clear picture of key performance measurements and to foster collaboration among parents, teachers, students and administrators for improved decision making and regulatory compliance. The solution? A single, integrated portal with role-based views into the disparate applications and functions through Web services. Administrators leverage the portal to manage resources and monitor key business indicators and student achievement. It enables them to generate reports in minutes instead of days for faster response and intervention. Students can access class assignments, student resources and calendars, and collaborate with peers. Even non-English-speaking parents can participate in their children's educational process via the multi-language portal.*

An SOA accelerates this evolution, allowing you to take full advantage of new portal features and capabilities to link existing business processes in new ways for greater interaction and productivity. You could begin by leveraging real-time information to support more effective business process execution. Over time, you can use the SOA to substantially increase collaboration between teams by enabling integrated collaboration technology and composite applications for more targeted use of information and processes from multiple sources.

Developing the flexibility to adapt to rapidly changing external marketplace drivers and evolving internal goals is critical to maintaining a competitive edge. But quick responses aren't possible without timely access to self-defined key performance indicators (KPIs) and business metrics, as well as to tools that can correlate that data with business goals.

Business dashboards can provide near real-time visibility into your chosen KPIs and metrics—financial or otherwise—when used with an SOA. From the people perspective, dashboards deliver direct information to individuals based on their job responsibilities. By providing this visibility and flexibility, dashboards can help you and your employees manage key business metrics and goals from a common source. And with these decision support capabilities, employees can quickly identify potential issues and work together proactively to address causes, reducing negative impacts on the business.

The best part about using an SOA to create more integrated and flexible Web portals and business dashboards is that you can incrementally transform collaboration solutions and approaches while fostering ongoing innovation. As you expand your SOA, you're not only able to connect people and increase access to real-time business information, you also can begin to enable functionality that connects the right people and information at the right time—based on alerts driven by KPIs, for example. These types of capabilities are possible, because an SOA allows you to create services within composite applications that use components from multiple application and information sources.

#### **Apply SOA to people-focused processes**

Whatever their ultimate goals, many companies begin the people entry point to SOA by reviewing processes to find those in which information gathering causes delays, multiple applications are required or numerous participants need different levels of access to a process or information. Once you have this information, you can begin to integrate and better orchestrate applications and processes using an SOA. Although you can use an SOA to improve virtually any process area, there are four potential people-centric process areas: self-service applications, distributed operations, business continuity, resiliency and innovation.

#### **Reduce the cost and time of creating self-service applications**

As they look to contain costs, enterprises must make hard decisions about how to allocate funds to core and noncore operations. One of the many areas to consider for improvements is human resources (HR). HR systems and processes have grown increasingly complex and expensive to manage and update. To lower costs while improving service to employees and reducing deployment time, many companies are using an SOA to enable self-service HR applications.

By adopting an SOA approach to self-service, you can give your employees a single point of access to the many disparate applications and information sources that store employee data. You also enable faster development of new components and functions for rapid changes to existing functions based on new HR information and needs.

#### **Streamline distributed value chain operations**

Tight interaction and effective collaboration are becoming much more critical as companies expand operations using remote offices, mobile employees, partners and service providers to complete day-to-day business. In recent studies sponsored by IBM and *The Economist*, the single greatest challenge cited by remote workers was collaborating and communicating with others.<sup>1</sup> To remain productive and responsive, teams that are dispersed across geographies and organizations need to have nearly instantaneous access to one another and to relevant project or job-related information and processes.

An SOA improves connections among distributed teams by enabling greater use of service-based communication through portlets, mobile channels and real-time communication. It also simplifies integration of services with instant messaging and collaboration technology.

#### **Improve business continuity and resiliency**

Given threats to ongoing business operations, such as a bird flu pandemic and terrorism, global enterprises should seriously consider how to create resilient operations that could withstand temporary disruptions to business. SOA is an important technology for building HR dashboards capable of compiling such critical information as location, skills and roles to support HR disaster planning. Using service-enabled portals as the technology framework for real-time connection to information sources allows HR and management to modify the components shown to employees more rapidly. In that way, they're able to connect workers quickly with up-to-the-minute information, as well as to increase the number of operations performed remotely and to provide access to content and training required for expanded roles.

#### **Promote business innovation through collaboration**

Most companies have invested heavily in technology components intended to make all members of their business value chains more productive. Unfortunately, the proliferation of applications and Web portals to access applications has added complexity to people's jobs. They often have to sign on to multiple applications or portals to find what they're looking for. And in some cases, they may not know that data or tools that are highly relevant to their jobs even exist.

By giving people what they need, when they need it, for exactly what they are doing, SOA-enabled solutions help expand the level of integration and collaboration among employees, partners, customers and suppliers. With an SOA, your company can flexibly weave together content and applications to reduce the "noise." Having ready access to just what's required to support the task or decision at hand gives people much more time for collaboration on new ideas.

**Expand from people to other business and IT SOA entry points**

The relationship of the people entry point to SOA and the other four entry points—process, information, reuse and connectivity—is complementary. Enterprises will find that pursuit of higher business value will involve solutions across the business-centric entry points—people, process and information. Deploying a successful and comprehensive SOA, however, is likely to involve some elements from all of the entry points.

Enabling people to interact with SOA provides key foundational elements that can help your company decrease deployment time and costs for all points of its SOA journey. The software and tools that enable people to interact with applications, processes and information via services are important infrastructure regardless of the SOA entry point you choose. And while SOA solutions may be more process- or information-centric, certain elements, such as a Web portal, are needed to expose services to different users to drive the desired business results. As SOA adoption increases and the breadth of use expands in enterprises, enabling flexible interaction and composition of services to a wider range of business users will be critical to achieve the full potential for business agility and flexibility.

**Define an approach that works best for you**

If your company wants to invest in an SOA that will have the largest impact on the bottom line, it's best to focus SOA solutions on business-critical processes where improving people's interactions and collaboration can make a competitive difference. Once identified, tactical SOA-based projects can increase employee productivity and cycle time for near-immediate cost savings and enhanced organizational efficiency. You're able to demonstrate the value of an SOA and begin to implement strategic solutions that help you improve collaboration and drive greater innovation and business flexibility—both vital to business continuity and resilience.

IBM can help you lay out an approach to a people-centric SOA that is right for your business and can help you meet your goals. Talk to your IBM representative about your business goals or contact IBM directly at [soa@us.ibm.com](mailto:soa@us.ibm.com).  
Let's get started today!



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<sup>1</sup> "The mobile working experience." IBM Institute for Business Value, 2005.