

As we regard the advances that have moved us into the 21st century, we observe that information technology (IT) seems to repurpose itself almost every year. In many instances though, the new technology represents an incremental change or a gradual advancement, offering one more tempting morsel of what "could be." A substantial contribution occurs only when technology is able to evolve beyond simple incremental change and actually redefine its very paradigm. Like the invention of transistors and later their increased density on wafers, or the separation of model, view, and controller as an architectural pattern, the new service-oriented thinking—and its application to IT known as service-oriented architecture (SOA)—distinguishes itself as a paradigm change. Seen in the context of an entirely new service-oriented "business ecosystem," SOA could be one of the most significant technological advances, enabling the IBM corporate strategy of business on demand, as envisioned by Sam Palmisano when he became chairman of IBM.

The new architectural paradigm is not just for IT but also for businesses, enabling them to change in a timely way as required and allowing any enterprise to become more flexible and more prepared for the global economy of the 21st century. It requires a deep understanding of business. Business processes must be decomposed, services must be created, and the supporting machinery must be implemented, so that the business ecosystem can run effectively, efficiently, and manageably.

In over 50 cases completed during the last two years, IBM has found that businesses which made the transition to service-oriented enterprises have shown significant savings in maintenance, personnel, and software and hardware costs. IBM has developed a fully articulated methodology, replete with tools and processes, to help transform businesses to service-oriented enterprises. This transition starts with the use of the Component Business Model (CBM), a method to create a componentized view of the business and then explore opportunities for transformation, and continues with the application of Service Oriented Modeling and Architecture (SOMA), which provides a method for mapping the business structure to the IT layer.

Regarding SOA, as we find ourselves often saying to customers, it is not a question of *whether*, but *when*. We are ready to support you on your own journey and hope that the papers presented in this issue will provide technical insights to further your progress.

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