

Is Business Talking Enterprise SOA?

Summary

Some leading business thinkers are talking about 21st century business in terms that are remarkably similar to the way that IT talks about SOA. This provides IT some new leverage for articulating SOA's value to business people.

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Business and IT people tend to speak different languages grounded in different views of the world. However, advanced thinkers in business management are discussing future trends in ways that resemble the basic concepts of service oriented architecture (SOA) that IT is disseminating. They point to companies that already are putting these business concepts to good use.

This convergence of thinking offers new opportunities to conduct a business-IT conversation that helps business people to see the relevance of SOA to business.

How IT Talks About Enterprise SOA

IT generally describes SOA as a reorganization of IT assets into *loosely-coupled* components. *Composite applications*, built with tools that constitute an essential part of a SOA environment, *orchestrate* multiple components in unique ways, thereby *spanning and ultimately breaking down the rigid IT silos* that hamper integration.

Furthermore, by focusing on service components that encapsulate data and low level execution details, composite application builders can focus on *what* the components do and less on *how* the components do it.

IT SOA advocates try to convince the business side of the house that, by promoting agility of IT systems, SOA enables the business agility needed to rapidly adapt and implement business processes and to flexibly build up, modify, and tear town value chains.

Advanced Business Thinking

A survey of recent top journals for advanced business thinking, including the *Harvard Business Review*, the *MIT Sloan Management Review*, and the *McKinsey Quarterly*, reveals a number of articles that exhibit a mode of thinking about business that parallels IT thinking in a number of ways. (See the What is remarkable is that these articles are really focused on business and not IT, and yet talk about where the future is headed in terms reminiscent of SOA.

The articles examine the characteristics of companies that are emerging as the most profitable as the new century unfolds. Such companies are able to unlock value that has been tied up in *organizational silos*, and create *new combinations of value* that are greater than the sum of the parts.

Much of the value being unleashed and repurposed consists of intangible assets such as business process knowledge and other forms of expertise, as opposed to traditional hard assets such as capital equipment.

Outsourcing vs. Consolidation

The articles point out that some companies have taken this trend to one extreme by becoming pure *orchestrators* of *loosely coupled* processes that they *compose* and recompose in different ways, with external suppliers executing the processes.

Other companies have pursued an opposite path to dynamic value creation, becoming mega-companies of unprecedented size while breaking down their silos and orchestrating loosely coupled assets within the company.

From Value Chains to Business Networks

As these companies look outward to their markets and supply sources, they have moved beyond simply positioning themselves at one point in a value chain. Instead, they constantly look for opportunities to insert themselves at multiple points in value chains in order to exert more control over supply and demand. An example is a company that buys large quantities of raw materials that its suppliers need, and then sells the materials to the suppliers.

The companies also look for ways to cross over from a position in one value chain to gain a foothold in another, parallel value chain. For instance, a major corporation that provides financing for purchasing its manufactured products repurposed its financing capabilities to take a position in additional value chains by financing products that it does not manufacture.

A company dedicated to this kind of dynamic value creation sees multidimensional business networks where the traditional 20th century mindset sees linear value chains.

Swapping Assets

The articles imply that an orchestrator should be able to modify the execution of an orchestrated process by swapping one loosely coupled asset with another, as long as both fulfill the same well-understood contract.

This business idea is analogous to the fact that SOA separates a service's public contract from its private implementation (that is, separates the *what* from the *how*). This supports the business need to draw the line between commoditized and specialized aspects of business processes when automating those processes.

Step by Step

The advanced thinkers clearly understand that companies must undertake the transition to these 21st century forms of organization gradually, identifying the best opportunities for early gains and building on success. They know that the changeover involves much more than issuing some executive orders and quickly bringing everyone into line.

Is Anyone Listening?

Some key questions present themselves at this juncture: Do these articles matter? – That is, does anyone in the business world really listen to what appears in these journals? If so, what is the best way for IT to take advantage of this influence?

History shows that the publication of vanguard business thinkers' ideas in top business journals can have significant impact on the business world. For instance, Michael Hammer's *Harvard Business Review* (HBR) 1990 article "Reengineering Work" was a major factor in the launch of the business process reengineering movement that had wide impact in the 1990s. Nicholas Carr's "IT Doesn't Matter" HBR article in 2003 significantly reinforced business executives' suspicions about IT and their strong tendency to pull back on IT spending.

Thus, there is a potential for the cutting-edge business concepts outlined above to generate momentum in the business world and thereby push the ideas beyond the relatively few forward-thinking companies that have already embraced them. That means that the similarity of this thinking to that of IT thought leaders presents an opportunity for IT to work its way back to the mainstream of the strategic business conversation.

A successful start to the conversation should allow us to begin drawing connections based on the correspondence of the two camps' thinking about silos, loosely coupled assets, and dynamically composed assets. We can point out to business executives that if they want to break down organizational silos, arrange the business as a set of loosely coupled assets, and combine and recombine those assets dynamically, then IT must organize its systems that way as well, and needs the business's support for doing so.

Summary

In a number of respects, business thought leaders are talking about SOA, but generally do not realize it. At the same time, the IT community is on the whole not aware of these comparable lines of advanced business thinking, at a time when IT is trying to engage the business in SOA.

Attempts to sell SOA by pointing out to business executives the similarity of thinking must take into account the fact that the excesses of the dot-com era tarnished IT's reputation. Since a transition to SOA cannot be undertaken in a short period, we have to be careful to manage expectations accordingly, lest we reinforce the worst perceptions of IT. The good news is that the parallel transition on the business side that the thought shapers are talking about is also of necessity a gradual transition. Thus there is a potential for an honest partnership to prepare companies for the rigors of 21st century business.

Sources

An independent businessman and former BEA and HP executive named Jeff Pendleton contributed greatly to the ideas that I discuss in this article, and pointed me to the following articles:

Lowell L. Bryan and Michele Zanini, "Strategy in an Era of Global Giants," *McKinsey Quarterly* 2005, Number 4.

Thomas H. Davenport, "The Coming Commoditization of Processes," *Harvard Business Review*, June 2005, Reprint # R0506F.

Lowell L. Bryan and Claudia Joyce, "The 21st-Century Organization," *McKinsey Quarterly*, 2005 Number 3.

Christopher G. Worley and Edward E. Lawler III, "Designing Organizations That Are Built to Change," *MIT Sloan Management Review*, Fall 2006, Vol. 48, No. 1, Reprint # 48107.

Scott C. Beardsley, Bradford C. Johnson, and James M. Manyika, "Competitive Advantage from Better Interactions," *McKinsey Quarterly*, 2006 Number 2.

John Seely Brown, Scott Durchslag, and John Hagel III, "Loosening up: How process networks unlock the power of specialization," *McKinsey Quarterly*, 2002, Special Edition: Risk and Resilience.

Frits K. Pil and Matthias Holweg, "Evolving From Value Chain to Value Grid," *MIT Sloan Management Review*, Summer 2006, Vol. 47, No. 4, Reprint 47414.

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