The Future of SOA - Part 7 of 7

Keith Harrison-Broninski

Taming the Minotaur: how to integrate organizational management with the IT backbone

This is the last in my current article series on **Service-Orientated Architecture** (SOA). In the series so far, I have tried to explain what is missing from current approaches to SOA, and from business modelling in general - and how filling this gap can lead to enormous efficiency improvement, particularly with regard to SOA adoption.

A cornerstone of my argument is that an organization cannot be properly understood by talking only about the services it provides, either internally or externally. Rather, an organization can only be understood as a *network of interacting objects*. Contrary to what you might expect, it is IT people who seem to be insisting on the simplistic service-based approach, and business people who naturally see the world as a system of "things" and relationships between them.

But what, you may ask, about Porter's famous "value chains", and the competitive advantage to be gained by optimizing them? Are not these just what IT people call "services"?

Yes and no. Value chains may *look* like services, but trying to model an organization on a service basis leads only to disaster. To help explain why, I am going to hand over to Paul Harmon, and quote at some length from one of his "Business Process Trends Advisor" mailshots, that of 30 January 2007:

> *"Operational effectiveness", as Porter uses the term, means performing similar activities better than rivals perform them. In essence, this is the "best practices" approach we hear so much about. Every company looks about, determines what appears to be the best way of accomplishing a given task and then seeks to implement that process in their organization. Unfortunately, according to Porter, it isn't an effective strategy. The problem is that everyone else is also trying to implement the same best practices. Thus, everyone involved in this approach gets stuck on a treadmill, moving faster all the time, while barely managing to keep up with their competitors. Best practices don't give a company a competitive edge - they are too easy to copy. Everyone who has observed companies investing in software systems that don't improve productivity or price, but just maintain parity with one's competitors, understands this. Worse, this approach drives profits down because more and more money is consumed in the effort to copy the best practices of competitors. If every company is relying on the same processes then no individual company is in a position to offer customers something special for which they can charge a premium. Everyone is simply engaged in an increasingly desperate struggle to be the low cost producer, and everyone is trying to get there by copying each other's best practices while their margins continue to shrink. As Porter sums it up: "Few companies have competed successfully on the basis of operational effectiveness over an extended period, and staying ahead of rivals gets harder every day."*
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> *The alternative is to focus on evolving a unique strategic position and then tailoring the company's value chain to execute that unique strategy. "Strategic positioning", Porter explains, "means performing different activities from rivals' or performing similar activities in different ways." He goes on to say that: "While operational effectiveness is about achieving excellence in individual activities, or functions, strategy is about combining activities." Indeed, Porter goes on to say that those who take strategy seriously need to have lots of discipline because they have to reject all kinds of options to stay focused on their strategy.*
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> *Rounding out his argument, Porter concludes: "Competitive advantage grows out of the entire system of activities. The fit among activities substantially reduces cost or increases differentiation." He goes on to warn that: "Achieving fit is difficult because it requires the*

> *integration of decisions and actions across many independent subunits." Obviously, I'm just providing the barest summary of Porter's argument. In essence, however, it is a very strong argument for defining a goal and then shaping and integrating a value chain to assure that all the processes in the value chain work together to achieve the goal.*
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> *The importance of this approach, according to Porter, is derived from the fact that: "Positions built on systems of activities are far more sustainable than those built on individual activities." In other words, while rivals can usually see when you have improved a specific activity, and can duplicate it, they will have a much harder time figuring out exactly how you have integrated all your processes. They will have an even harder time duplicating the management discipline required to keep the integrated whole functioning smoothly.*[1]

In other words, an organization must be understood and improved as an entire system - not as a set of activity sequences. What is required to gain such an understanding?

There are many well-established techniques available for modelling an organization, ranging from analytic techniques such as the Zachman Framework to management tools such as Balanced Scorecard. However, none of these techniques provide what is truly needed in order to optimize the way an organization operates, i.e., a *systemic view* together with the *tools to leverage it*:

- An overall perspective that can be used to make strategic decisions (what Human Interaction Management calls **Strategic Control**)
- The ability to drill down from this overall perspective to the processes allocated to specific executives (what HIM calls **Executive Control**)
- A means of using a process as a basis for executing, monitoring, and facilitating the work itself (what HIM calls **Management Control**).

To provide all this, you need to apply 3 techniques in conjunction:

- Process Architecture, for which Martyn Ould's **Riva** method is the leading approach, in order to understand what your organization *does*, at the highest level
- Human Interaction Management, in order to:
    - Break down the work required to implement this into the 3 levels of control described above
    - Implement the adaptive, innovative work done by humans collaborating (what HIM calls **human-driven**)
- Business Process Management, in order to implement routinized, repetitive work (what HIM calls **mechanistic**), allocating as much of it as possible to machines rather than humans.

TAKE AWAY

SOA on its own, like BPM, is a *technical* advance, not a *business* advance. And like all other technical advances, both are as likely to cost you money as save you money.

However, applied in the **right way**, SOA can make a huge improvement to the operation of an organization. This is the right way:

1. First draw up a process architecture, to unite business goals with business processes. This is a sine qua non - unless you start here, you will be building a house on sand. As discussed earlier in this article series, *goals* are the true foundation of all business activities.
2. Next apply Human Interaction Management, to make best use of the humans in your organization, at all levels of the organization chart - not in order to *downsize* your people

away, but rather in order to *leverage* the skills you have on board. Only via HIM can you gain the dual advantages of structure (for efficiency) and agility (for responsiveness).

3. Use BPM/workflow to improve your performance of mechanistic work - but be aware *that there are no magic bullets to remove real-world complexity!* The idea that BPM would make it possible for business people to change mechanistic processes on the fly is a complete myth. The IT department are going to stay involved for the duration, and when you want a new version of a mechanistic process you will need to ask IT people to draw it up, IT people to ensure it complies with regulations, IT people to test it, and IT people to deploy it. Agility is for human-driven processes only - it is the province of HIM, not of BPM/workflow.
4. Finally (and only at this point should SOA enter the picture), look at all the processes you have defined - both human-driven and mechanistic - and ask: which of these could make use of services? Then build the services you *need*, not those that the IT department suggests may be quite handy.

By following this approach, you will end up not only with a true picture of your organization, but with a picture that you can use for immediate practical purposes. The system thus defined will match your strategy, via process architecture. It will match your organization chart, via HIM levels of control. It will lead to true process-orientation, for both kinds of work (human-driven and mechanistic). And it will allow you to optimize as much as possible, via the use of SOA.

There may be no magic bullets to remove complexity, but there are means to tame it. The 21st century business environment is completely unforgiving. You have 2 options. Ride the fourth wave.[2] Or let it drown you.

To find out more about using Riva, HIM, BPM and SOA in conjunction, start here:

http://tinyurl.com/2o2upl

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[1] http://www.bptrends.com/publicationfiles/advisor20070130%2Epdf

[2] http://tinyurl.com/2s7n93

