Business Process Driven SOA Using

BPMN and BPEL

Matjaz B. Juric and Kapil Pant
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Reviewed by Paul Harmon

This book promises quite a bit. It proposes to introduce CIOs, executives, SOA project managers, business process analysts, and BPM and SOA architects to SOA, BPMN and BPEL. Matjaz Juric is a professor at the University of Maribor and has already published on SOA and BPEL. Kapil Pant manages Wipro Technologies BPM/SOA practice in Europe.

I read this book because it addresses topics that are of great interest to those involved in process analysis, redesign, automation and management. There is a lot of interest in the BPMN notation, in the BPEL process language, and in how both can be used in conjunction with the SOA distributed component infrastructure. Many companies are exploring these topics and trying to figure out how these three technologies work and can be used in conjunction with each other. In addition, the book addresses other key subjects – how to analyze processes and BPMS software tools – that are also of considerable interest.

This book provides an overview and some technical depth, but it is not a very technical book and does not present code. Most of the book walks readers through the creation of a small application in the Oracle BPMS suite. The book is clearly addressed to IT developers. It assumes too much technical knowledge to make it appropriate for business managers without an IT background.

Even IT professionals, however, will want to be wary of taking this book too seriously. The authors do not understand the current process movement or the BPMS marketplace and they introduce a number of confusing and erroneous ideas. For example, the authors assume that SOA is a type of business process methodology. They say: "SOA introduces technologies and languages that reduce the semantic gap between the business processes (pictures) and the actual applications (code). Particularly important here are BPMN... and BPEL. ... The other major difference in SOA, as compared to the traditional BPM, is the approach to business process automation. SOA takes a path different from the traditional approach which was based on the "big bang" approach, where processes were first modeled, then optimized, and finally the application software was rewritten to support the new processes. SOA has learned from the major mistakes of the traditional BPM approach."

In essence, the authors argue that BPMN and BPEL are elements of SOA and that SOA is a general approach to business process improvement. And they seem to contrast SOA with software development based on Java and C#, which they also term "BPM."

Let's see if we can sort through this confusion.   First, most of us would think that business process work included things like Six Sigma, process redesign, Business Process Reengineering, Lean, etc. We would think of processes as descriptions of the work that companies do. We

would assume that some activities are automated and some are done by employees.

Juric and Pant are, in essence, ignoring all that and are only focused on processes that can be automated.   Further, they are dividing processes that can be automated between those we automate using object-oriented languages like C# and Java – the old BPM -- and processes we automate with BPMN and BPEL.   And they term the latter SOA (Service Oriented Architecture). In their initial chapter they completely ignore BPMS suites like those from Appian, IBM, TIBCO, PegaSystems, Ultimas, etc. in this explanation.   In later chapters when they do present Oracle's suite, they treat it as a tool that implements BPMN and BPEL, which they assume to be elements of SOA.

BPMN and BPEL were developed before SOA was talked about.   They were developed to be used in BPMS suites like Intalio, TIBCO and PegaSystems and by process modeling tools like ARIS, ProVision, and Mega.   None of these tools involved SOA at the time.   If any of this history is unclear and important to readers, you should reread Smith and Fingar's *Business Process Management* book.

Early descriptions of a Service Oriented Architecture (SOA) described a technique that allowed software applications to call services – in effect an infrastructure architecture that called distributed components, called Services, as needed.   SOA can be used to support any software application, although it is increasingly popular as a way of linking specific activities described in BPM applications to services that can be used to implement one of the activities.   The BPMS suite or application can be written in Java – several are – and the service implementation can be written in Java or C#, or COBOL for that matter.

Confusing SOA, BPMS, BPMN and BPEL is a disservice to a field that is already confused by too many terms that are defined in contradictory ways.   Smith and Fingar hoped that BPMS would serve to empower business managers to better control their processes.   By reframing BPMS as an element of SOA, the whole BPM area is converted into an IT specialty, which is just the opposite of what Smith and Fingar – and those of us who worked on BPMN and BPEL -- intended.

What's more disappointing, however, is the authors' suggestion that one should do process redesign in BPMS tools.   In essence, this means that companies that don't understand their current processes should invest in software rather than investing in a redesign effort. The current market for BPMS products is experiencing difficulties as a direct result of this approach.   Too many companies have bought a BPMS product to use as a software development tool, developed a simple application, and are now looking around for something else to do with the software. This isn't the way companies become more process centric. They begin by having human teams work to redesign their processes. If they are smart, they only begin to develop BPMS-like applications after they have their basic processes defined and functioning in a more-or-less efficient manner. The rush to buy BPMS products before a company understands its processes will lead to failures and is the surest way to kill the interest in BPMS.

The book is divided into six chapters, as follows:

1. SOA and Business Processes
   Why Care about Business Processes?
   SOA Approach to Business Processes
   SOA Inception
   Technical Introduction to SOA
   How SOA, BPMN, and BPEL Fit Together

The book doesn't seem to be well-integrated. Topics are repeated and, indeed, in some instances the book contradicts itself from one chapter to the next. For example BPMN is introduced in Chapter 2 and then again in Chapter 3. In Chapter 2 there are errors in how BPMN elements are defined. These same, erroneous definitions are avoided in Chapter 3. In other words, it seems as if the two authors each wrote chapters and no one edited the entire manuscript to get everything in sync.

The authors introduce Oracle's BPA suite in Chapter 3. In Chapter 5 they introduce Oracle jDeveloper/BPEL. I would classify Oracle's BPA and jDeveloper/BPEL, together, as a BPMS suite – but I certainly would not call it an SOA product. Earlier the authors briefly discussed the fact that BPEL is not a very comprehensive process modeling language – it can't deal well with workflow problems yet, for example – but don't go on to discuss how this limits Oracle's tool, or any of the other BPMS suites on the market today. As BPEL is not complete, no BPMS tool can be a vanilla BPEL product. They must all incorporate some proprietary code to deal with workflow and interface. Thus, to date, the standards, like BPMN, BPEL and SOA are more goals to move towards rather than complete standards on which to base mature products. This may

sound trivial, but this kind of insight is critical for IT people who are thinking about BPMS products and trying to sort out the current, confusing market.

Topics like BAM, Business Rules and Simulation are only touched on in passing, in the context of the Oracle suite.

This book is a goldmine of confusion and I don't recommend it for anyone who is trying to understand business process work, SOA, or the BPMS marketplace.

Much of the book focuses on working through an example using the Oracle BPMS suite. If you are using the Oracle product and can ignore the overview presented in Chapters 1 and 2 and only focus on the specific explanations of how to use the Oracle tool, you might find these sections useful.

Paul Harmon is the executive editor of BPTrends. He is the author of *Business Process Change* and the Chief Methodologist of BPTrends Associates. He was an occasional member of the original committee that developed BPMN and has co-authored several reports on BPMS products for BPTrends.