



Using Business Process Modeling Architectures

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BUSINESS PROCESS EXPERT COMMUNITY

Making Business Process Innovation Happen

Recap

What was discussed yesterday

Who is a BPX

BPX – are we there yet ?

BPX – challenges

BPX – from the viewpoint of an enterprise architect



Modeling Business Processes

- Need for modeling
- Need for a modeling framework / architecture
- Process and information – common unique or federal ?
- Organizational View
- Functional View
- Data View



Need for Modeling

- A process needs to be modeled :
 - To support a unified design scheme across the enterprise
 - To be able to appreciate and factor inter functional interactions across platforms
 - To be able to build a model that is compatible with the multitude o systems that are to use it.
 - Ultimately the process model not only serves as a beautiful box model on paper but is also expected to function as a web service that can be used by other applications as well.



Need for a Modeling Architecture

A unified scheme should be used to model the process and the modeling tool should be based on a specification that supports not only rendering the process graphically but also to be able to encode the same into a BPM Specification Language that can be understood by developers alike

The Architecture should be based on a Web Services capable platform and should appeal to the process designer as well as the developers who are to use the process in their applications by way of services



Prescription for a good BPM architecture

- Designing the solution
- Components of the design
- Standards



Designing a Solution

- Design:
 - Flowchart of steps performed over a time period to resolve a business problem
- Run:
 - To be able to run what has been conceived as a process
- Monitor:
 - To be able to monitor and administer the process as it is being executed



Nature of interactions

- Human Interaction
 - The process should support human interactions like approvals etc.
- System Interaction
 - Other components of the system must be able to interact with the process designed



Perspectives

- The process designer should be aware of the other dependent processes and model the process in such a way that inter-process interaction is taken care of
- Do not design a process with an independent view



Components of the design

- Notation and Graphical tool
- Modeling notations
 - Business Process Modeling Notation (BPMN) , UML activity diagram – preferably with a mapping to BPEL
- Adapters:
 - The architecture should aim to support the widest variety of system interfaces- Java , SAP , COM , XML , etc.
- The process is a web service
 - The process not only interacts with other web services but is also a web service in itself.



Standards

- **Business Process Execution Language (BPEL):**
 - A set of XML specifications and templates or process definitions
- **Workflow Reference Model (WFMC)**
- **XML process definition language**
- **BPMN** – Set of notations for describing a process flow – akin to a data model specification – ERWin type diagrams for process definition – similar to a flowchart with separate shape specifications for different process interactions.



SAP R/3 reference model

- SAP deals with Processes , often requiring connectivity with multiple systems across the landscape
- Implementation is always a fine balance between mapping the As-Is process , Industry best practices and the process afforded by the package
- Solution composer gives an idea of the various process by industry and how the same can be achieved on the ECC platform



The Organization View of Processes

Helps map the organization structure with the processes

- The organizational view informs us who does what and/or who is responsible for doing a particular function or task.
- The organizational view at the highest level would indicate the organization as a whole. The next level could be the major divisions or departments, and then would come the position in the organization, and then would come the persons who hold that particular position in that particular organizational unit



Advantages and Disadvantages

Advantages

- Modeling the organizational view could help us to understand that our current organizational structures are rigid and hierarchical, and may enable us to see how we could move to a more organic, matrix and/ or process-oriented organizational structure.

Disadvantages

- The process tends to become more complex



The Function View of the Process

The function view tells us what is actually done in the task. You could have multiple levels in the definition of functions .

- At the lowest level, you could describe the application as a whole;
- The next level, you could only look at the functional areas that are relevant to a particular application.
- The next level could contain the tasks that are relevant to a functional area.
- And the final level could contain the subtasks under the main tasks.



Data View of the Process

- This view is the view of the data that is required to process or execute a particular function or task. Depending on the paradigm that the enterprise system is implemented in, the data view could be either an entity relationship (ER) view or an object oriented (OO) view.



Control View of the process

Mentions how the control over the process is passed along the process and who controls the process at what time.



Understanding the IT landscape

- Various systems in place for various processes / functions
- Nature of the interactions between these systems
- Can it be made better ?
- Is this approach sustainable
- How would the landscape respond to :
 - Mergers & acquisitions
 - New business processes
 - Changing an existing business process



Modeling Guidelines

Correctness of the model has to be ensured:

- Syntactic correctness
 - Rules of the model architecture have to be strictly adhered to
- Semantic correctness
 - Does the model correctly represent the semantics of the real world?
 - We all know that the process model is an abstraction, but in that abstraction, has it abstracted the real world correctly as far as the current problem that is facing us is concerned?



References

- Essential Business Process Modeling – Michael Havey – O’Reilly – 2005
- V.Portougal, D.Sundaram - Business Processes - Operational Solutions for SAP Implementation – IRM Press (December 22, 2005)
- Business Process Expert Community – bpx.sdn.com



Thank You

Q&A

