

Module 3: BPM: Technology



Agenda

- The Market
- BPMS Architecture



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The Market

- BPM Tools vary widely and have been designed to meet an array of situations
- Not all tools provide all the components of the Architecture
- BPM tools can work across multiple applications
- BPMS can be used to:
 - Design
 - Execute
 - Analyze &
 - Monitor processes



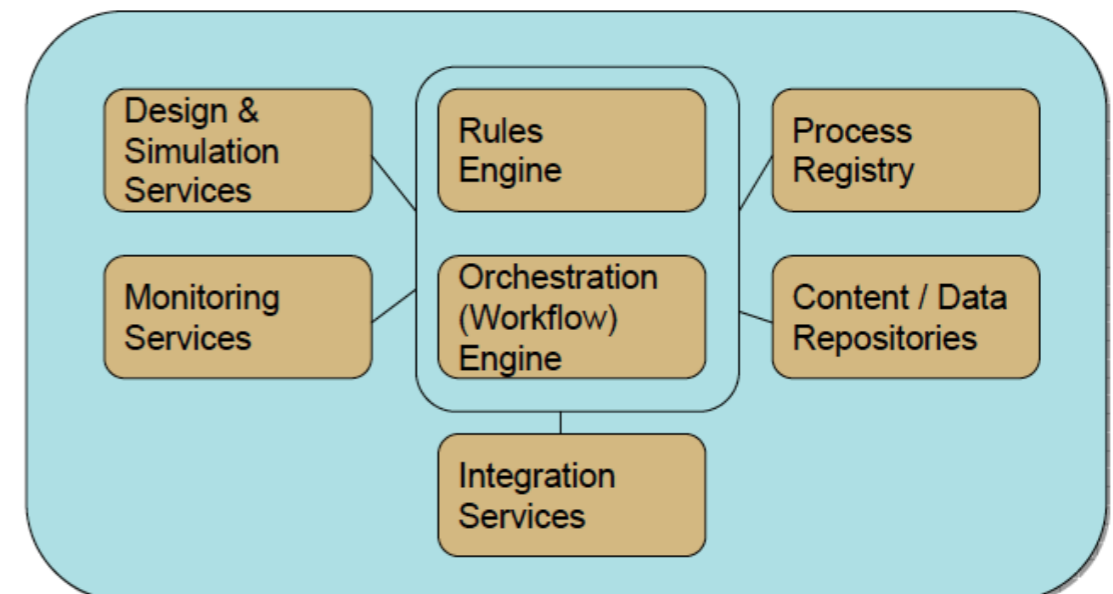
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BPMS Architecture

- Orchestration (Workflow Engine)
- Design & Simulation Services
- Monitoring Services
- Rules Engine
- Process Registry/Repository
- Integration Services
- Content/Data Repositories



Orchestration (Workflow Engine)

- Core BPM Component
- Moves processes from one task to another – Acts as a guide.
- Updates the state of each process instance
- Delivers tasks to employees
- Creates process instances for process cycles



Design & Simulation Services

- **Process designs** are the language of the workflow engine.
 - Design tools can be used to capture business process models – enhancements can be tested and modified in advance of go-live
 - Process designs are translated in the runtime environment
- **Simulation** is an abstraction of the view of the real process based on certain process-based assumptions.
 - Imagine we have a 1000 customers, how long will process X take? Simulation helps to predict how long a process takes
 - Provides users the ability to set process parameters to establish break points, thresholds etc. to carry out the simulation.



Monitoring Services

- Aka Business Activity Monitoring
- Real time monitoring/reporting that allows decision-makers make decisions
 - Data is created while executing a business process
 - The data can be analyzed or displayed via dashboards or reports
 - Allows to answer questions like: Who has what task? When did they get it?
 - Identifies bottlenecks and areas of weak or no activity



Rules Engine

- Parses the business rules. E.g. can be used in classifying a loan application – depending on the information provided, different activities maybe triggered based on the business rules.
- Driven by business rules, not processes
- Separates business rules from application code. This allows different business rules to be usable in other applications.
- Separates business rules from business processes.
- Integrated into BPMS to manage effective automation.



Process Repository

- A place to store and reuse process model elements
- Contains process models and metadata about processes
- Searchable
- Can be used to enforce process drawing standards, which is hard to do with a drawing tool.
- Allow analysts run reports, view database dependencies and master data
- Can store a dynamic collection of processes and allow changes to them without the need to manage each change manually/individually.



Integration Services



- BPMS Software may need to link to Identity Management, directory services and other legacy systems
- May require integration techniques for system to system integration:
 - EAI (Enterprise Application Integration): Integration of data between applications in an organization e.g. web services.
 - Where multiple applications are involved in a process, the interaction between the workflow and applications can be facilitated through BPMS.

Content/Data Repositories

- Contains unstructured data like documents and files
- Manages information created in/used by the business process
- Manages unstructured data (files, images, movies) and information used or created by the business process.



Lessons Learnt

- The Market
- BPMS Architecture



References

- Value-Driven Business Process Management: The Value-Switch for Lasting Competitive Advantage By **Peter Franz & Mathias Kirchmer**

