Business Process Management
Outline

1) Introduction
   a) background
   b) concepts
   c) evolution

2) Workflow Management
   a) overview
   b) functional areas
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   d) workflow patterns
   e) workflow solutions
   f) summary

3) Business Process Management
   a) overview
   b) aspects
   c) standards
   d) technologies
   e) BPM and WF
   f) summary

4) e-Government Applications
   a) e-service delivery
   b) inter-government WFMS

5) Conclusions
Overview

BPM is concerned with supporting business processes:

1) It involves the design, enactment, control and analysis of business processes.

2) Enables rapid reaction to process changes as required by the environment.

3) Usually restricted to operational processes since strategic levels processes are difficult to describe.
Why BPM?

There are important reasons for BPM:

1) Enable timely response to changing environment

2) Measure business processes in forms of performance indicators which can be used as a basis of evaluation

3) Link operational processes to corporate strategies
BPM Life Cycle

The following activities make up the BPM Lifecycle:

1) Goal Specification, Environmental and Organizational Analysis
2) Process Design
3) Process Implementation
4) Process Enactment
5) Process Monitoring
6) Process Evaluation
BPM Life Cycle Schematic
Goal and Analysis

1) Specifies goals that a business process is to achieve

2) Gather information about available resources and constraints within organization

3) Gather information about external environment which is outside the organization
Process Design

1) Identifies the processes to be:
   a) Analyzed
   b) Design
   c) Re-designed
   d) Automate

1) Identifies the important factors and constraints related to the process (step 1)

2) Specification of Processes
Process Implementation

Process is transferred into the operational environment:

a) Manual – procedure handbook
b) Automated – Workflow
Process Enactment

Process is executed:

1) Process activities are executed based on the control flow

2) Information is logged during the process execution:
   a) Activity Start time
   b) Activity End time
   c) Exceptions
   d) etc.
Process Monitoring

Process is monitored in real time:

1) A number of process metrics are defined, for instance:
   a) number of applications verified per day,
   b) average response time for external enquiries
   c) rejected applications

2) Could be determined by performance pledges
Process Evaluation

Process is evaluated to check if it meets its goal.

Evaluation is made based on:

a) target values specified in process design
b) process metrics from enactment
c) process metrics from monitoring
Reasons for standards:

1) Avoiding vendor lock-in strategies

2) Allowing for collaboration of different organization by defining shared process models

3) Reusing proven processes and patterns across products
Standardisation Areas

Efforts are ongoing to standardize the following areas:

1) Process Definition
2) Process Modelling
3) B2B or G2G Collaboration
4) Discovery of Services
5) Services
6) Transport
Process-Related Standards

- Discovery
  - UDDI
  - LDAP
  - DISCO

- B2B Collaboration
  - RosettaNet PIPs
  - ebXML CPA
  - EDI
  - OAGIS BODs
  - SWIFT

- Modeling
  - Object Management Group (OMG) Model-Driven Architecture (MDA) standards (UML, BPDM, etc.)

- Process Definition
  - WS-CDL
  - OASIS standards (ebXML BPSS, ASAP, WS-CAF, WS-BPEL, etc.)
  - Workflow Management Coalition (WfMC) standards (XPDL, WfXML, IF5, etc.)

- Services
  - WSDL
  - ebXML CPP

- Transport
  - Worldwide Web Consortium’s (W3C) transport protocols (HTTP, SOAP, etc)
  - WS-RM
  - SMTP
BPM Tools

Some categories of BPM tools:

1) Business Process Modelling, e.g. UML and Business Process Management Notation tools

2) Business Process Analysis, e.g. ARIS Process Performance Manager used for diagnostic purposes

3) Business Process Intelligence, e.g. Oracle Discoverer, Business Object, other BI tools for mining/prediction based on log data

Workflow Management Systems are also BPM tools.
Relating BPM and WF

Business Process Management and Workflow Management are related concepts:

1) Business Process Management subsumes Workflow Management
2) Workflow Management is largely concerned with definition of processes and enactment services
3) BPM activities allow:
   a) process design before implementation by workflow system
   b) monitoring, evaluation and re-design after implementation and during execution by workflow system
Workflow Activities in BPM
Summary

1) BPM aims to align operational processes with organizational strategies

2) BPM activities cover the design, definition, enactment, monitoring and evaluation of business processes

3) Workflow Management is an aspect of BPM concerned with the enactment and state management of processes

4) BPM activities like monitoring and evaluation rely on data provided by Workflow Engines during process execution

5) Several BPM tools exist, specifically in the area of process modeling, design, analysis and intelligence.