Introduction to IBM Business Process Management

Unit 1

- BPM provides robust and flexible software capabilities and industry expertise.
- BPM enables customers to discover, model, execute, rapidly change, govern, and gain end-to-end visibility on their business processes.
Typical Process Problems

1. Unstructured tasks and communication (i.e., paper or e-mail)
2. Inefficient Working Environment Spans Systems
3. Inconsistent Prioritization
4. Incomplete or Inaccurate Data Flow Between Systems
5. Lack of Control Over System and Business Events (Exceptions)
6. Poor Visibility Into Process Performance

Customer Problem:
- Cannot Grow Efficiently
- Customer Satisfaction
BPM Brings Order to the Chaos

**PROCESS**
1. Automate workflow & decision making
2. Reduce errors and improve consistency
3. Standardize resolution across geographies
4. Leverage existing systems and data
5. Monitor for business events and initiate actions
6. Real-time visibility and process control

**Customer Benefits:**
- Huge Reduction in Manual Work, Errors
- Faster, More Consistent Issue Resolution
- Easier to Manage the Business
- Consistent Case Handling
The essential BPM capabilities

- Modeling
- Simulation+
- Optimization
- Workflow
- Rules
- Business Data Mgmt
- Human Interfaces
- Documents / Cases
- Event Monitoring
- System Integrations
- Metrics
- Analytics
IBM Business Process Management in 2011:
Unifying two market-leading platforms

- simple to use
- fast time-to-value
- deep business engagement
- high performance
- excellent integration
- superior integrity
IBM Business Process Manager V8 - Architecture

Process End-Users
Process Owners

Business & IT Authors
Authors & Administrators
IT Developers

Process Designer
Integration Designer

Process Center
Governance of Entire BPM Life Cycle

BPM Repository

Shared Assets
Versioned Assets
Server Registry

Process Server

BPMN
Rules
Monitoring
BPEL
ESB

Out-of-box Process Portal
Configurable Business Space
Optional Microsoft Add-ons

Backward compatibility, easy migration from WLE & WPS
* Composed interaction or Toolkits
Process Server - Unified Runtime Architecture  
(New Customer View)  

*IBM Business Process Manager Advanced* 

**Business Logic Execution Environment** 
- BPMN 1.1 
- BPEL Microflows 
- Human Tasks 
- Screen Flows 
- Business Rules 
- Service Orchestrations 
- Javascript 
- Java 
- BPEL Long-Running Processes 
- Mediations (ESB logic) 

**Common BPM Kernel** 
- Presentation Services (Business Space) 
- Repository and Deployment Services 
- Governance and Life-Cycle 
- Invocation Services (SCA, Protocols and Bridging) 
- XML Services 
- Process Apps 

**Single, Integrated Run-Time** 

**WebSphere Application Server**
Process Server - Unified Runtime Architecture (Existing Customer View)

- Process Server
  - Single BPM runtime
  - Common kernel
  - Single JVM capable
  - Common configuration and topology
  - Task list
- Common WebSphere Application Server and thus common HA, WLM, server management and clustering.
- Includes capabilities from both WebSphere Process Server v7.0 and WebSphere Lombardi Edition v7.2
- **100% compatible with existing WPS and WLE solutions**
- Repository for all process applications
- Life-cycle management and deployment of all applications
- Includes execution environment for development and testing

Process Apps – key unit of organization and packaging

Download Process Designer
Process Designer

- Single Interface that enable business process authors and analysts to
  - Model and implement
  - Simulate
  - Inspect and debug and process instances
  - Examine process performance
IBM Integration Designer

- Authoring of complex integrations and fully automated Straight Through Processes in supporting role of Process Apps authored in Process Designer
- Eclipse based Integration Designer makes it easier for service and integration developers to build reusable SOA services, orchestrating services, access backend systems
Business Author requires a back-end integration for an Expense Reporting process that he is building.

Integration Developer is building a straight-through Credit Check process that has a business exception path requiring human interaction.
“Online and Offline” Process Server environments

Network boundary

Production PS V8 for z/OS

TEST PS V8 for z/OS

*note: permission for firewalls

Production PC V8 for zLinux

Process Designer

Integration Designer

Process Center

HTTP

RMI / IIOP

JMS

HTTP

RMI / IIOP

HTTP
The Big Picture of WAS and BPM z/OS in Parallel Sysplex

It’s all about redundancy and integration with platform HA / DR function

1. Redundant and fault-tolerant hardware
   System z hardware design has many layers of fault tolerance and redundancy.

2. Redundant z/OS instances
   Either through logical partitioning (LPAR) or separate physical machines.

3. Clustered WebSphere z/OS servers
   Multiple application servers grouped into a logical unit for application deployment and management
   z/OS exclusive: dynamic SR expansion (more coming up)

4. Redundant data resource managers with Sysplex shared data
   Multiple resource managers instances with shared data in CF and a global syncpoint manager (RRS)

5. Redundant network adapters hidden behind Virtual IP address
   On the front end, multiple network interfaces with a moveable virtual IP address protecting against outage

6. Workload distribution hidden behind distributed virtual IP and Sysplex Distributor
   Further abstraction of real IP addresses behind a virtual IP that can be swapped across images in a Sysplex, with Sysplex Distributor providing TCP connection distribution based on WLM

BPM for z/OS focus areas:
- H/A-DR
- Local Connections
- DS and DB2 v10 for z/OS strengths
- WMQ Q Sharing

BPM V8 z/OS Goes here!