Open Source, Open Mind, Open Innovation

uEngine Open Source Community
http://www.uengine.org

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Open source BPM solution - uEngine

uEngine – Introduction

uEnigne – the universal engine for e-Business

Open-source

- Low-cost and sustainable
- Academically/Educationally valuable and utilizable
- Independent from proprietary (commercial) software

Powerful

- Pure-JAVA based adaptability
- Performance of running 30,000 instances per day
- Expressive coverage of over 300 business partners

Reliability Approved

- Adopted by Hyundai-Kia motors company, Green-cross Life, Korea Life, Hanwha group company

uEngine – Why Open Source BPM?

Governments and companies are in a a favorable position to raise Open-source BPM

IT professional Education

- ν Access to S/W determines about possibilities for Education
- ν Allows direct and independent localization
- ν Allows their own products and businesses

Economy

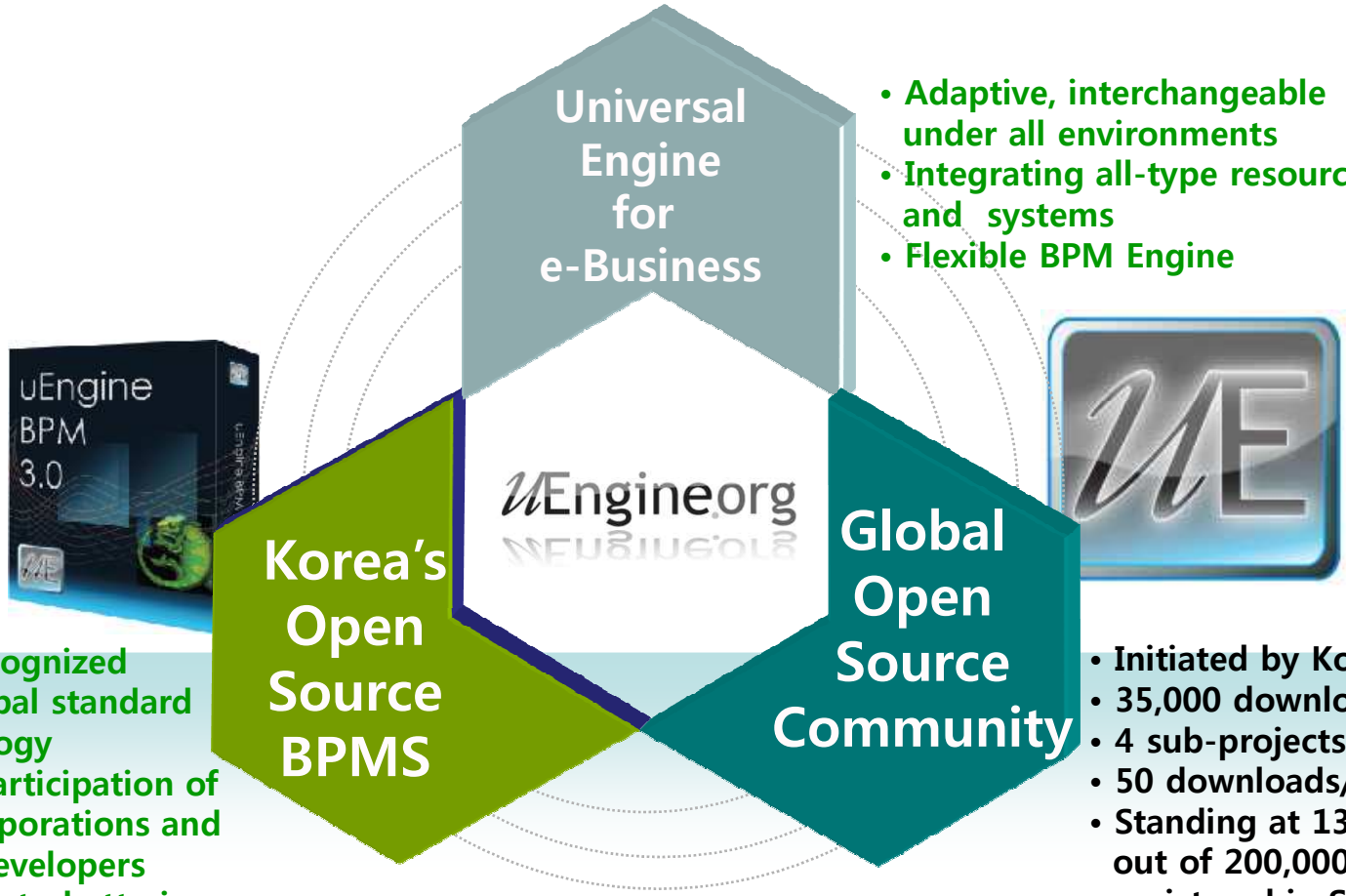
- ν Allows sustainable local S/W, H/W industry
- ν Empowers national enterprises and economy

Government

- ν Independent from foreign monopolies
- ν Requires independence, sustainability and transparency

Introduction of uEngine

uEngine ?



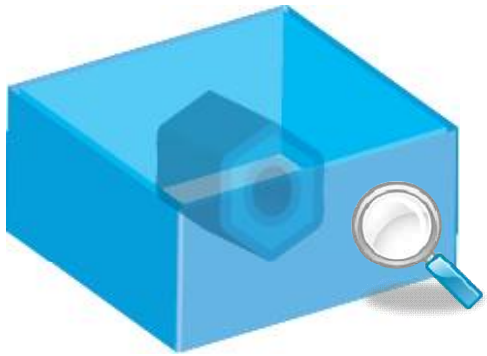
- Adaptive, interchangeable under all environments
- Integrating all-type resources and systems
- Flexible BPM Engine

- Globally Recognized
- Leading global standard and technology
- Voluntary participation of multiple corporations and individual developers
- Contribution to bettering SW industry structure by efficient R&D cost allotment

- Initiated by Korean Developer
- 35,000 downloads world-wide
- 4 sub-projects
- 50 downloads/day
- Standing at 130th place, out of 200,000 projects registered in Sf.net

Items to Consider when BPM applied

Features of BPM
Prioritizing education and consulting on SW utilization strategy rather than SW itself
High follow-up technical dependence on product manufactures after purchase due to the nature of BPM
Difficult for a single vendor to faithfully develop since BPM is like a Department Store
The key of BPM products is their solidity and stability
BPM needs frequent customizing

Conventional, Closed BPM Product	Open Source BPM uEngine
	
Black Box	White Box
Hard-work	Collective Intelligence
SW provided only	Consulting / Internalization
One-Size-All-Fits	Customizing
Single Channel Service Single Source	Multi Channel Service Multi Source

Customers' Testimonials

SK Telecom -"Reflect the new idea just as planned"
- Chose uEngine which provides their source codes in 100% which easy to be customized to fit in such planning requirements.

Korea Fuji-Xerox -"Want to use BPM product which is self-manageable for a long time"
- Selected never be technical proprietary colonized and it can be commericalized as an own-product

Hanwha group -"Implement totally tailored BPM enviroment which fits in our organization and culture"
- Choose uEngine easily customizable in their organization model and import the legacy in-house systems into activity types.

Korea-Life -"Even if the business processes are most complicated and hard-to-implement, they never yield under technical limits.
- Selected uEngine which easily run such a hard-to-run processes including Dynamic changes, Dynamic multiple instances, Event-driven process execution, Compensation.

PosData -"No more difficult and expensive BPMS"
- Chose uEngine which is faithful to Zero-coding concept and held a prominent position in Tocal cost of ownership.

Hyundai-Kia motors -"Solve the complicated and duplicated-managed architecture of the exising systems"
- Solved the problems by using uEngine which provides not only Server/Client mode but also In-process (Framework) mode

Green-Cross Life -"Build a completely incorporated BPM based underwriting system with newely introducing ECM product.
- Used uEngine which is can be fitted into the centeric system's organization chart and the funtionalities.

uEngine – Customers - Hyundai / Kia Motors Company

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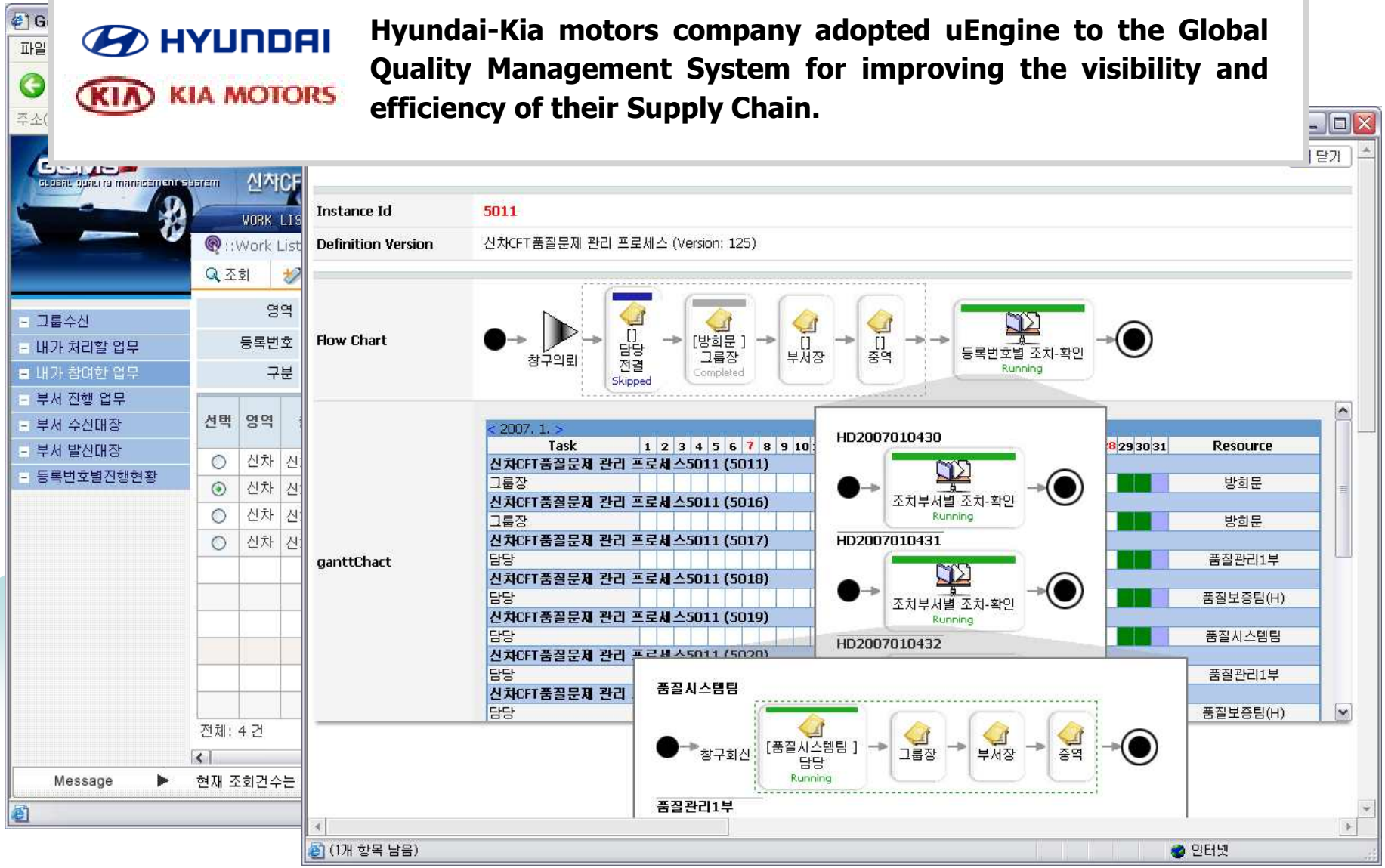
HYUNDAI

KIA MOTORS

Hyundai-Kia motors company adopted uEngine to the Global Quality Management System for improving the visibility and efficiency of their Supply Chain.



uEngine – Customers - Korea Life Company

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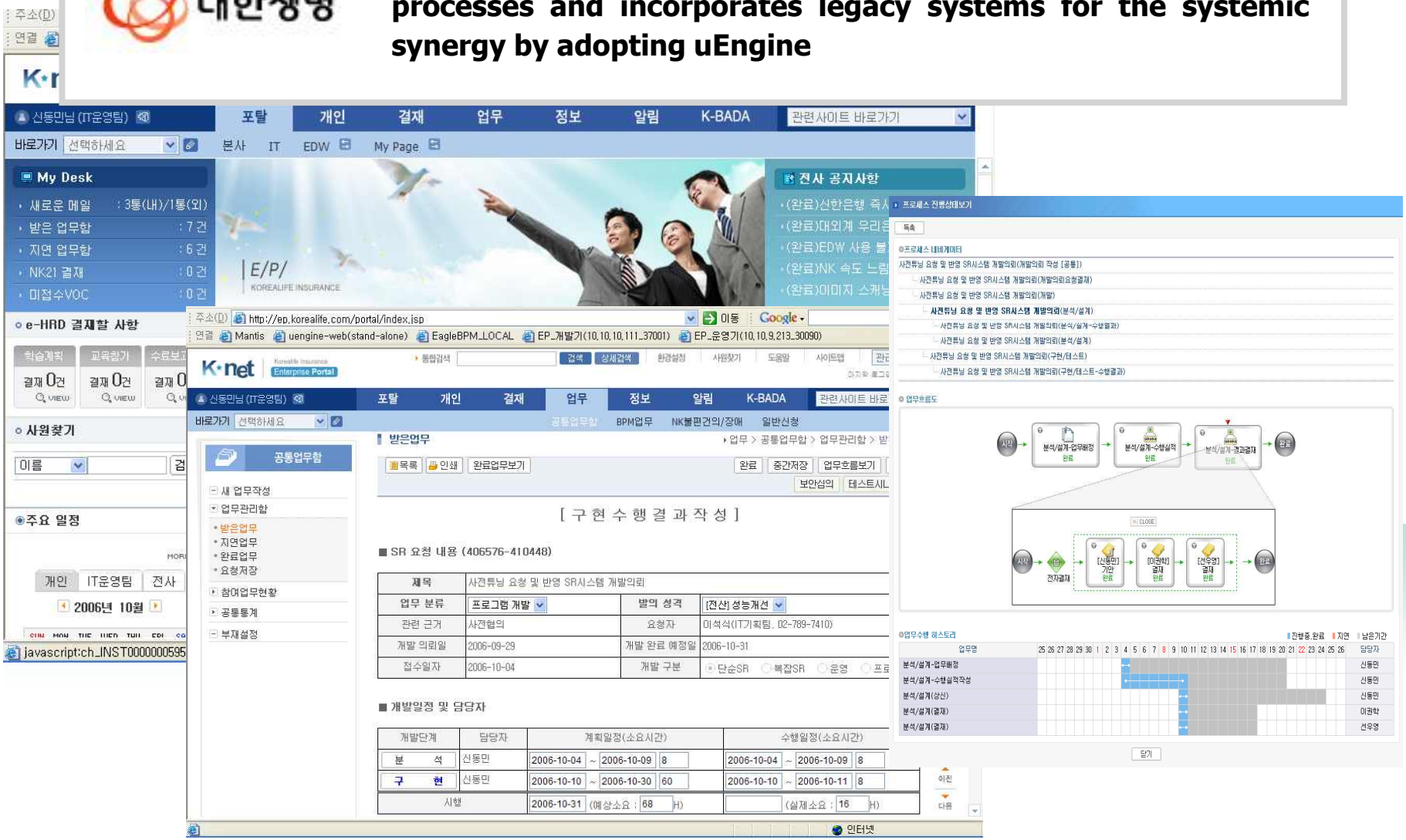
대한생명

Korea Life company manages their internal supervising processes and incorporates legacy systems for the systemic synergy by adopting uEngine



uEngine – Customers

uEngineorg

녹십자생명보험
GREEN CROSS LIFE

Green-cross life company accelerated their response time of the underwriting processes (contract / revival inspection) for the customer satisfaction by adopting uEngine

HANWHA

Hanwha group company embedded uEngine in the existing groupware to improve their collaboration environment – ERP, Approval, and the groupware system

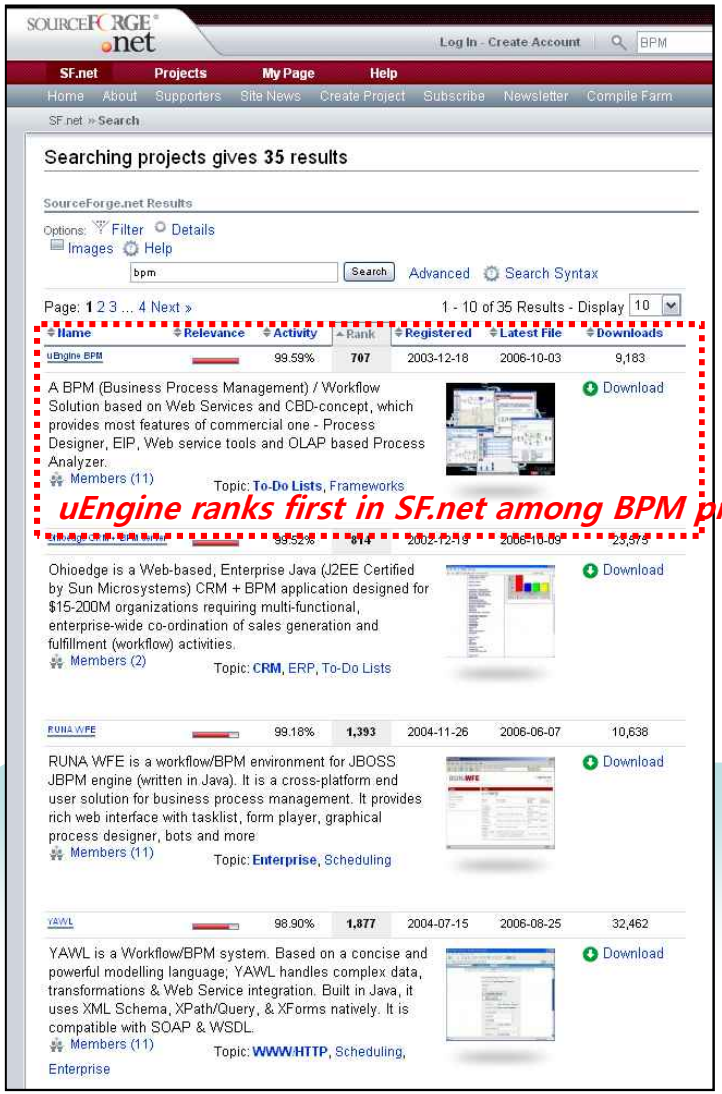
KOSEM
A Member of Sibelco Asia

KOSEM, a member of Sibelco Asia, adopted both uEngine and ERP into their manufacturing data / process management

CiEHR
Center for Interoperable EHR

CIEHR (Center for Interoperable EHR) adopted uEngine into their CDSS(Clinical Decision Support System) project to reduce doctor's human error in prescription for patients

uEngine – External evaluations



servin
FULLY LOADED LINUX

uEngine

Mature, WebApp, Lin/Win/All, $$$, Java
uEngine consists of a designer to define a w
with the workflow. The process designer is poi
tasks. These tasks can be human steps such as

CMP
United Business Media

CollaborationLOOP

Companies who would like to create their own workflow process with minimal development that includes the use of different collaboration functionality, should consider using uEngine as a way to simplify collaborative-process automation.

Jae-yoen Mo.

OpenTide,Consuting, Korea

In evaluating software like BPMS that will plays the centric role of enterprise systems, it is mandatory to consider a lot of points such as TCO, software adaptability, and customizability beyond the functional advantages. If you choose a proprietary BPM product that doesn't provide source codes, you may face such a dilema like that you can't afford the requirements that addresses source code modification and neither can change the product. In this case, an open source and adaptive BPM tools like uEngine can be a nice substitution.

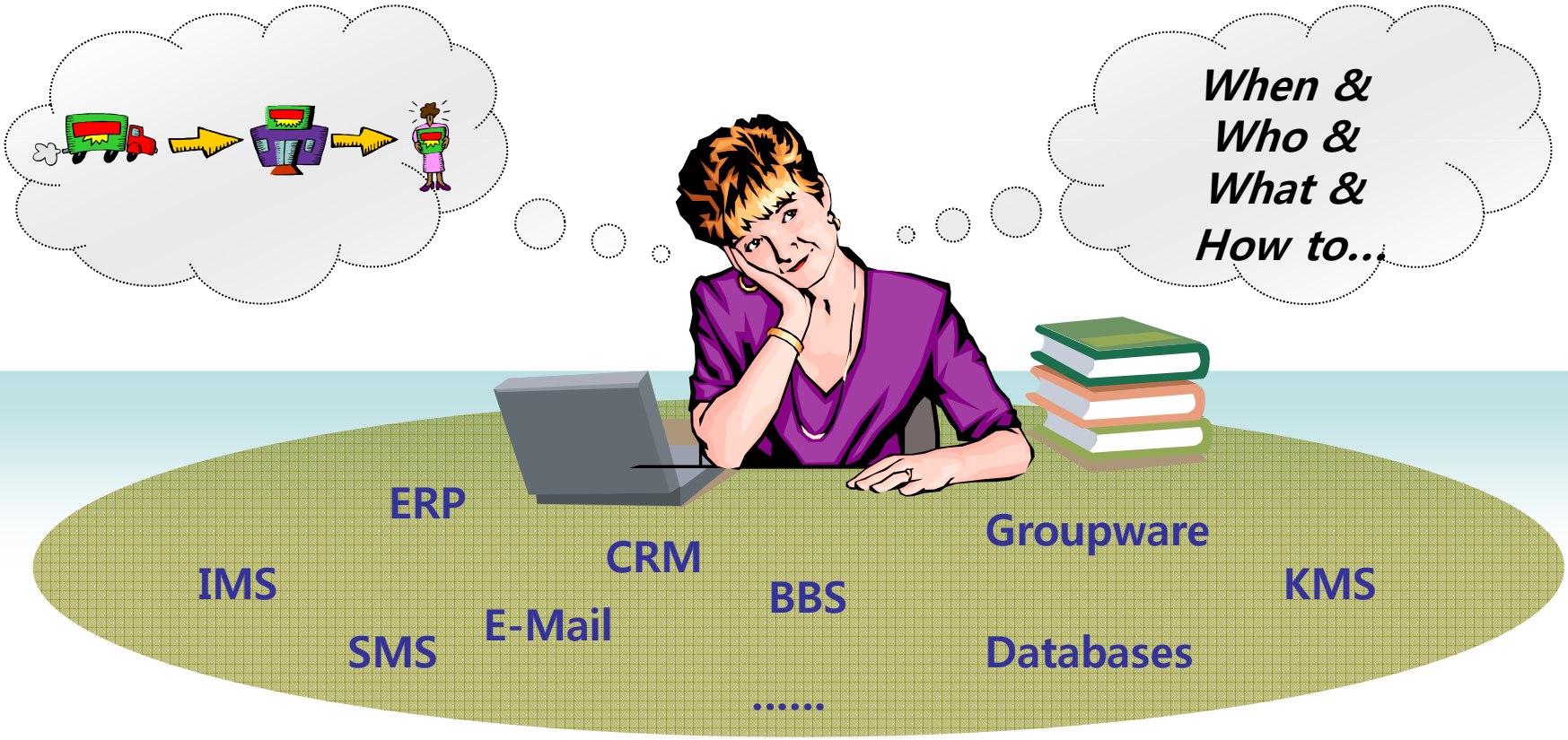
What is BPM?

The Concepts of BPM

Chances lie in 'Process'

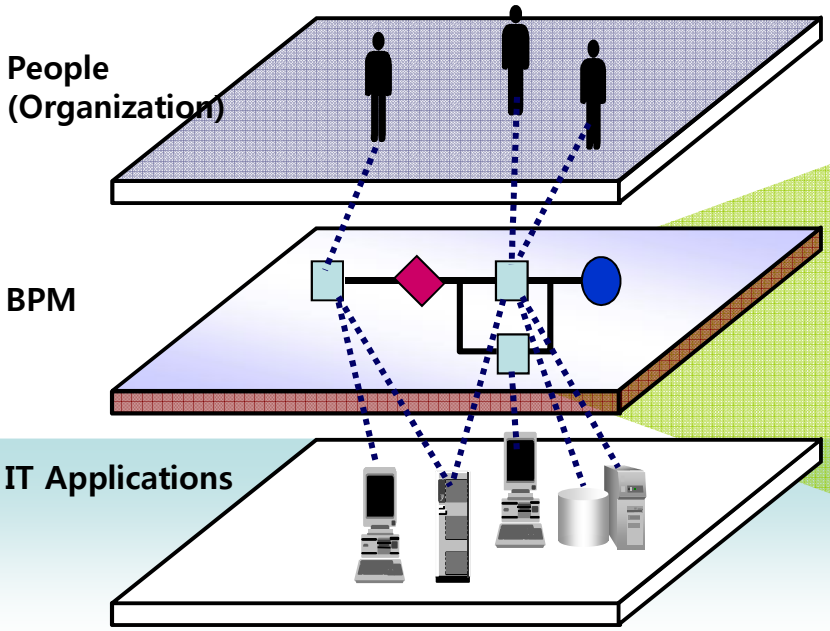
Are your business processes important?

If yes, are your business processes ever managed?



What is Business Process Management?

A software system to design, execute, monitor and analyze business processes, and simultaneously integrate legacy systems.



Process Life Cycle Management

- Systematic management of business processes
- Visualization of business processes
- Flexibility in the change of processes

Comprehensive business integration

- Integration and automation of business processes, organization and IT applications
- Effective collaboration through sharing and reconciling disparate processes

Continuous improvement

- Aligning processes with strategic goals

Product

uEngine BPMS Suite 3.0

BPD — **Process Definition**
Visualizing Process and Definition Tool

BPE — **Process Engine**
Process Execution and Control

BPM — **Process Monitoring**
Understanding of on-going workitem
Real-time View, Accumulated Data View

BPA — **Process Analysis**
Measurement and Analysis of workers' Performances

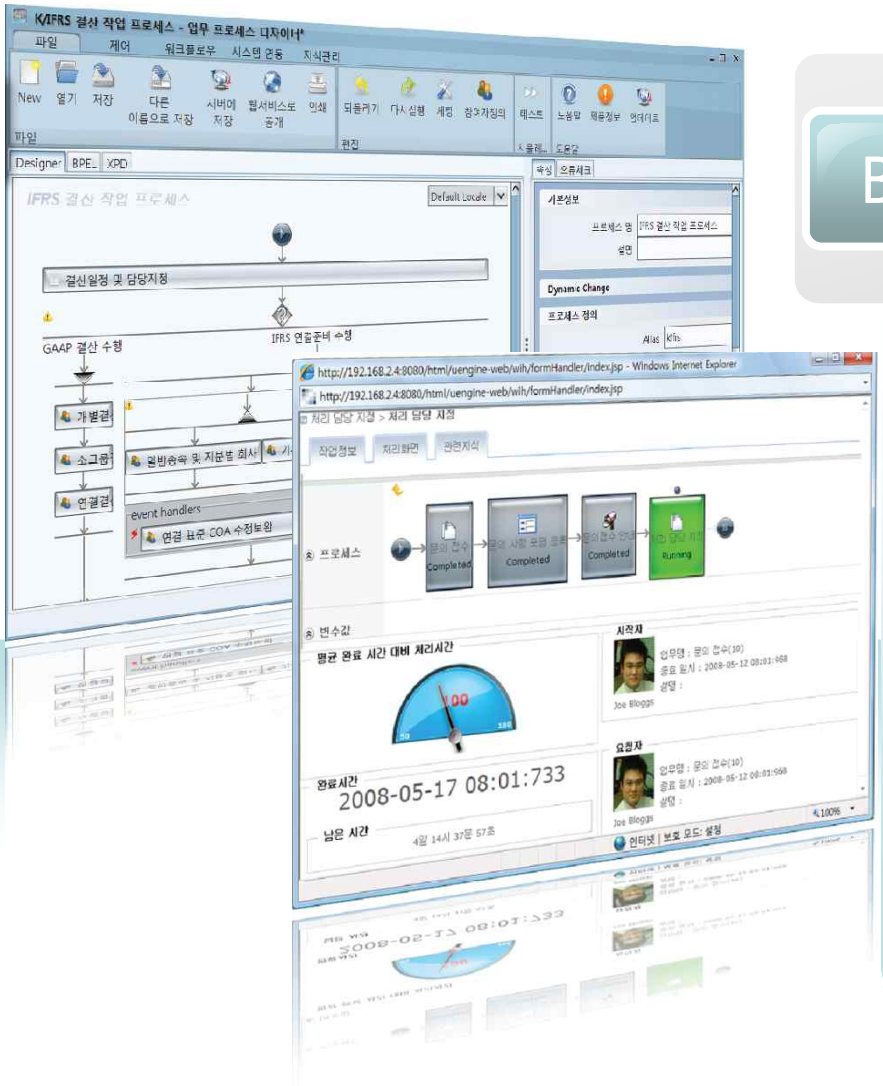
EAI — **Enterprise Application Integration**
Process-Centered System Interlocking

+

E2PM — **Enterprise 2.0 Portal Management**
Supporting its components through Gadget, Wiki, Blog and Forum

Product

Digitalization of Work Process



BPD

Process Modeler

Constructing human-application work process into DB in the form of 'Process' through GUI

- Process Standardization and Recycling
- Executed, Monitored, Evaluated by multiple users once defined
- Fundamental of future process innovation
- Modeling based on BPML Standard Model
- Defining Roles / Variables/ Filtering and Events
- Verifying and Error Checking

Core features of BPM: Process Digitization

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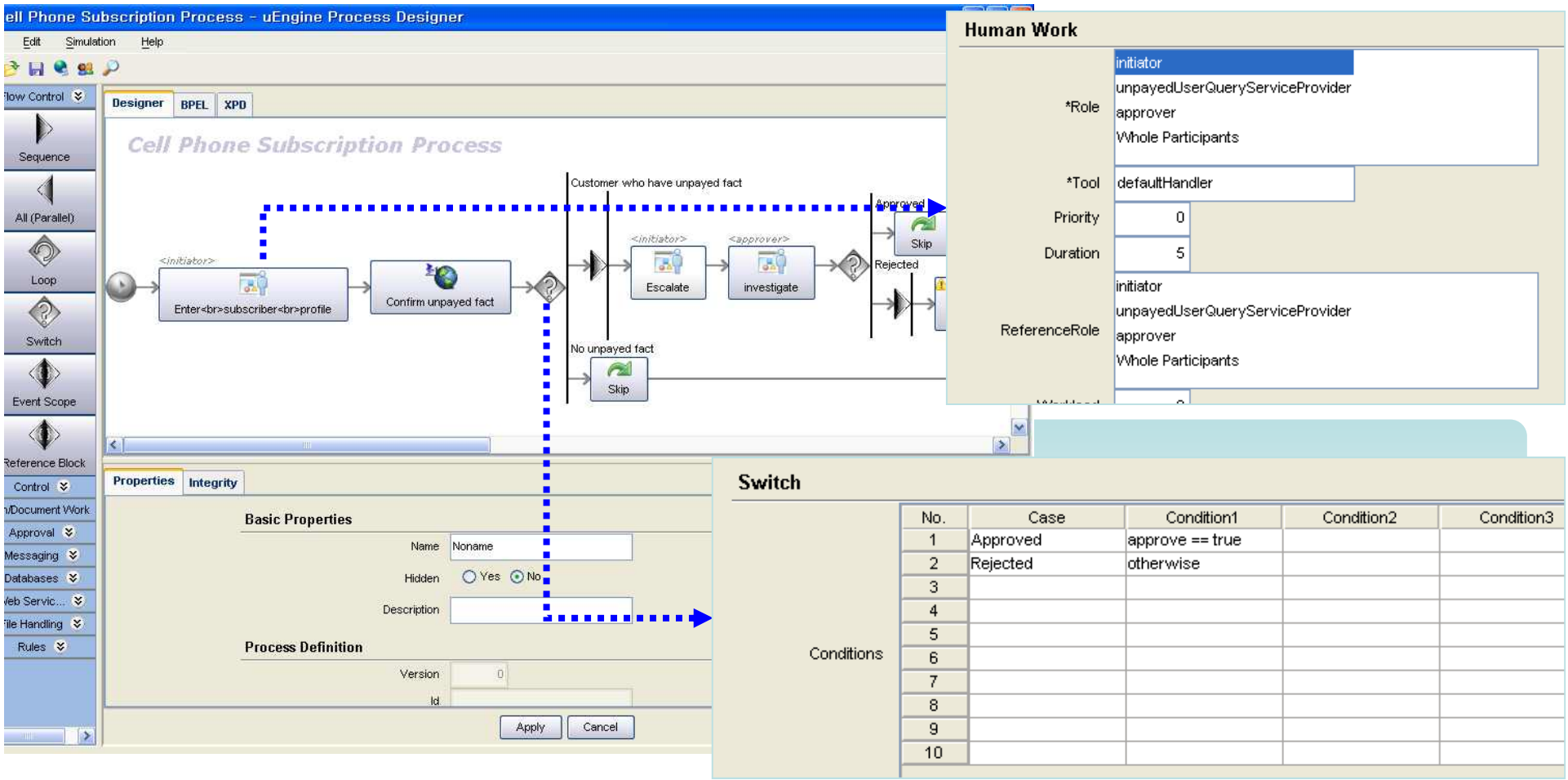
Process digitization includes expressing ambiguous work procedures in a process form and connecting people and IT applications through business processes.

- Enables business processes to be standardized and modularized.
- Once they are digitized, it is possible to automatically execute, monitor and evaluate them.
- Business processes become interfaces for innovating an organization.



Core features of BPM: Application Integration

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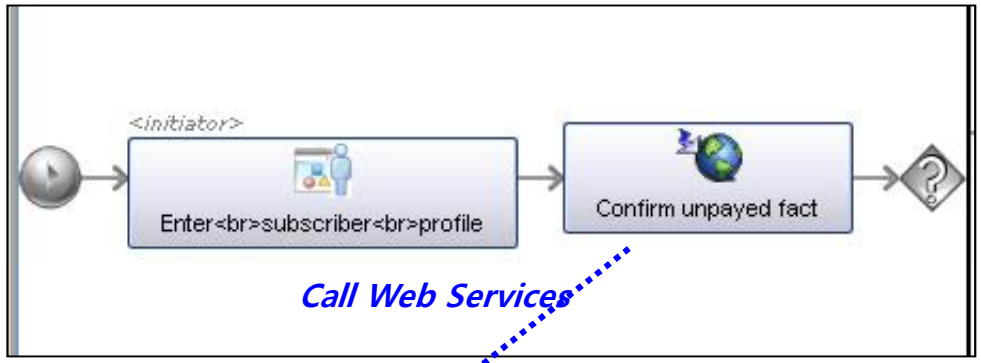
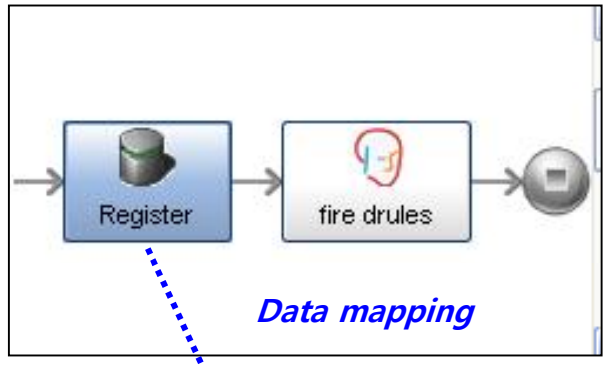
Application integration definitely shows that BPM is a next-generation software system. BPM facilitates streamlining data over heterogeneous organizations and incorporating multiple systems based on business processes. Therefore, a process plays a role as a backbone for integrating different systems.

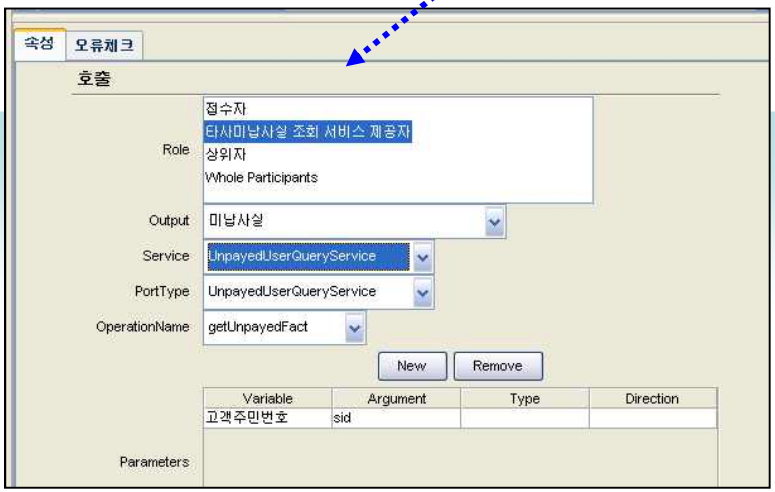
- Ultimately, value chain management is completed by integrating heterogeneous systems over different partners.

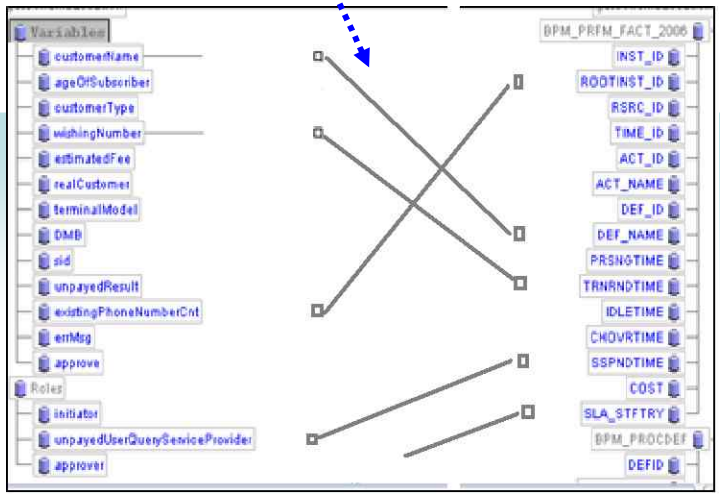




Call Web Services

Data mapping





Product

Process Execution

Process Engine

BPE

Executing digitalized processes directly without IT teams' support, allocating and controlling workload by pre-defined phase

- Workitem reaches persons in-charge, not vise versa.
- Maximizing synergy effects among multiple systems involved in the course of process execution
- Worklist / Noti / Scheduling (Calendar)
- Generating process-based applications by connecting conventional windows with ease through page-flowing

Core features of BPM: Process Automation

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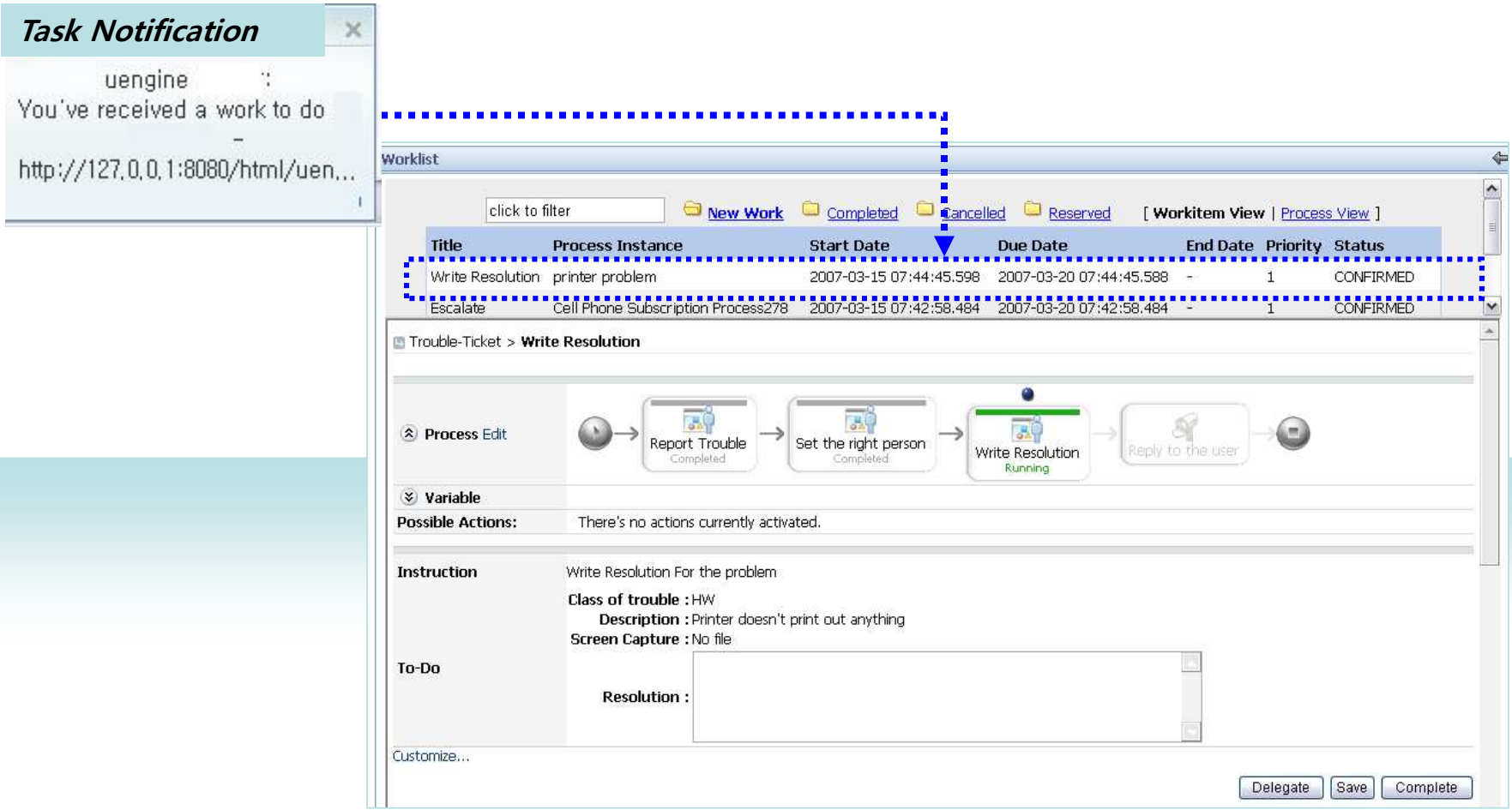
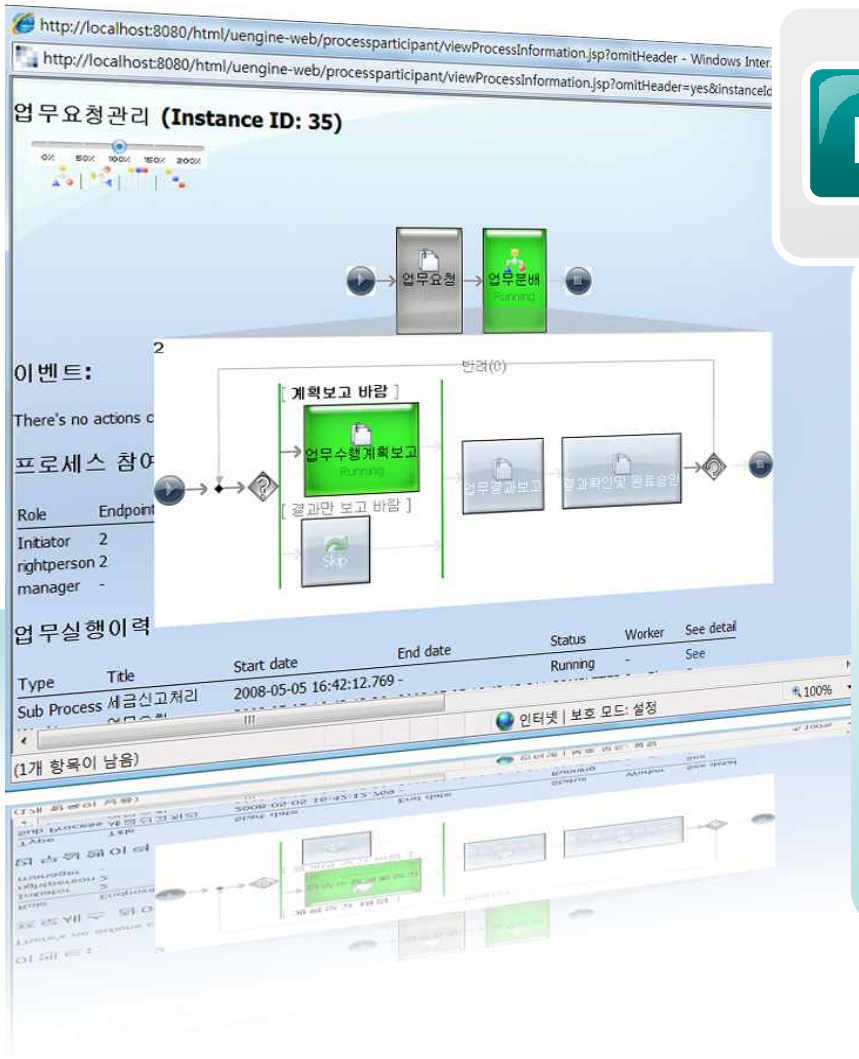
Process automation ensures the execution of business processes in the order of defined procedures at the stage of process digitization.

- Automatically delivers work items to task performers.
- Employees never have to manage their schedule for setting the priority of assigned tasks.



Product

Process Monitoring



BPM

Process Monitor

Confirming previously unseen work flows through multiple viewers, notifying for immediate actions

- Needless to wait and write incorrect work progress reports
- Overcoming work delay caused by in-house emotional/political factors through transparent work control

Core features of BPM: Process Monitoring

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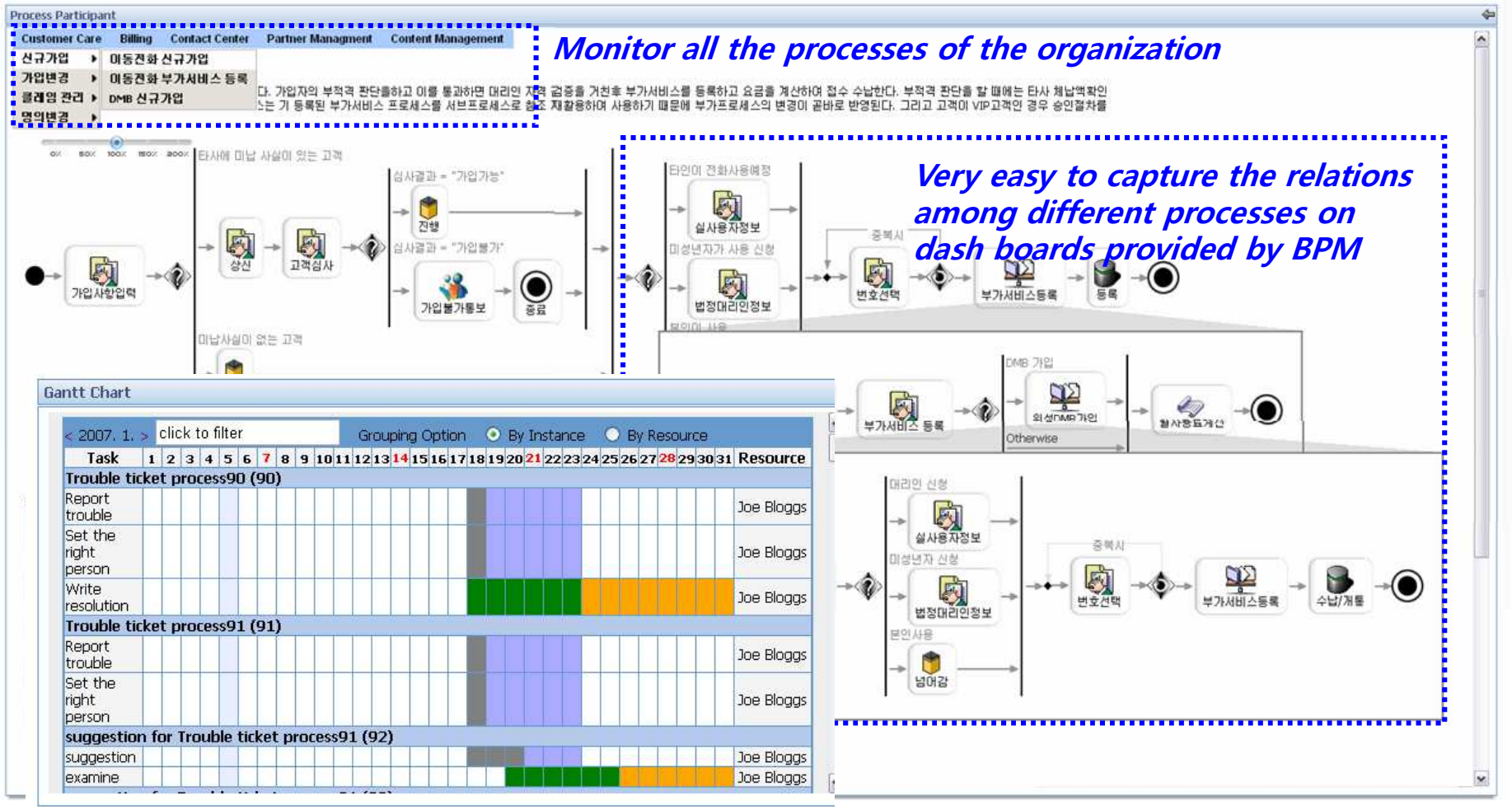
Process monitoring supports checking the ongoing status of process execution and the performance of employees at the first glance.

- It is possible to response unexpected problems very quickly through monitoring process execution.
- Managers can systematically plan resources allocation and process redesign based on the results of process monitoring.



Product

Process Analysis

BPA

Process Analyzer

Analyzing core issues : bottleneck causes, optimum (human) resources, performances and CS

- Based on Analysis outcome, BPM life cycle improves on-going betterment of process by redefining conventionally designed processes
- Process analysis based on OLAP
- Built-in OLAP Server/client based on MDX
- Dashboard based on JSR-168 portlet

Core features of BPM: Process Analysis

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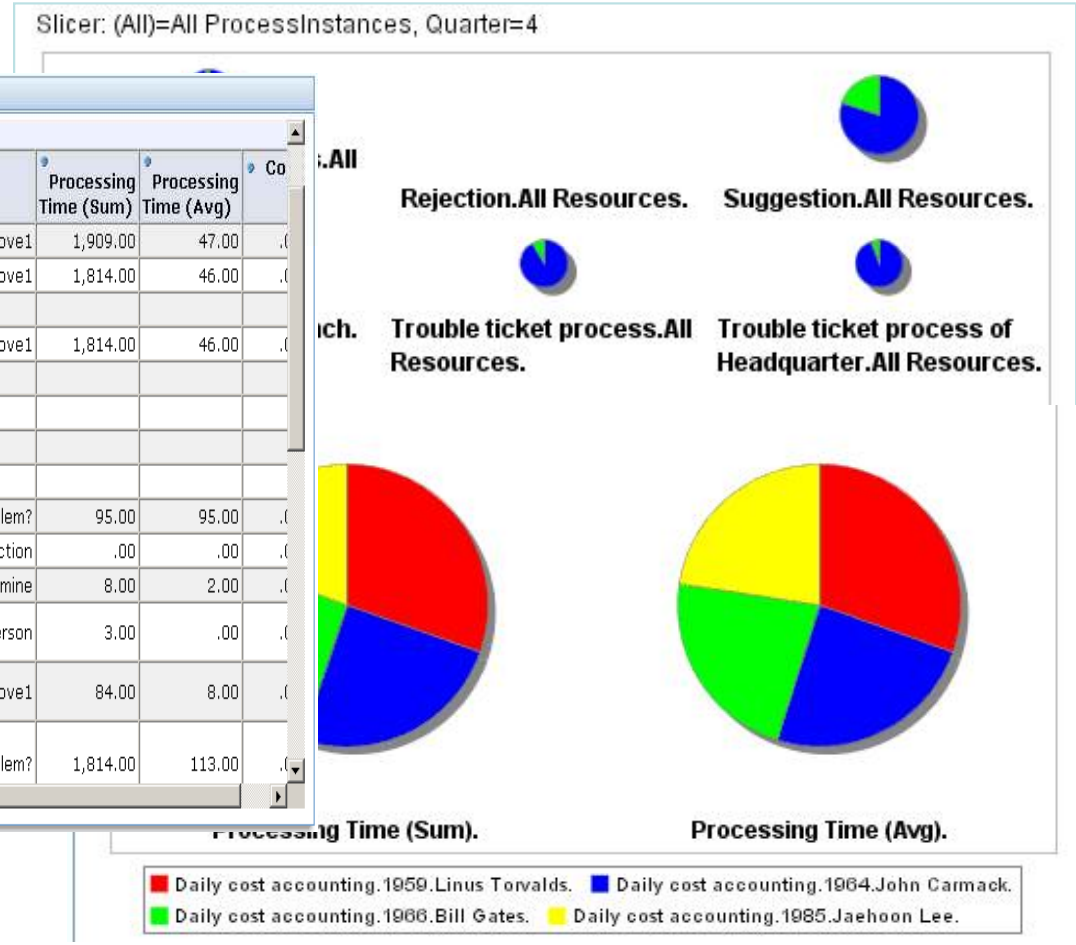
Process analysis contributes to finding implications about the critical issues of process management such as the reason of process inefficiency, the identification of constraint resources, the performance of process execution and customer satisfaction for the performance.

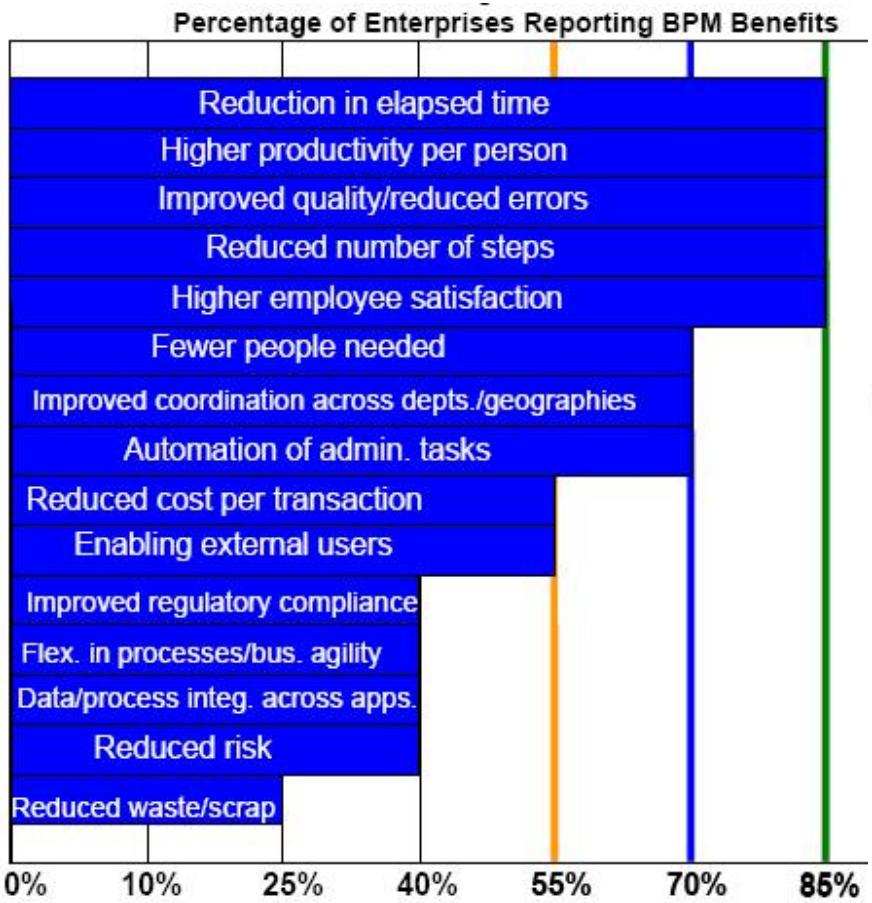
- By judging from process analysis, BPM can answers such questions:
  - Who is the most eligible worker for a certain task?
  - Which stages of a process are a bottle-neck and how to resolve it ?

Process Analyzer

Process Definition		Resource			Measures			
(All)	DefName	(All)	birthday	resource name	Activity	Processing Time (Sum)	Processing Time (Avg)	Co
-All Process Definitions		-All Resources			Approve1	1,909.00	47.00	
		All Resources	-1970		Approve1	1,814.00	46.00	
			1970	Joe Bloggs				
				John Wayne	Approve1	1,814.00	46.00	
				Test HKG 2				
				Test HKG 3				
				Test HKG 7				
				Test LAX 27				
			null		Internal or external problem?	95.00	95.00	
All Process Definitions	+Rejection	+All Resources			Rejection	.00	.00	
	+Suggestion	+All Resources			examine	8.00	2.00	
	+Trouble Ticket of Branch	+All Resources			Set the right person	3.00	.00	
	+Trouble ticket process	+All Resources			Approve1	84.00	8.00	
	+Trouble ticket process of	+All Resources			Internal or external problem?	1,814.00	113.00	

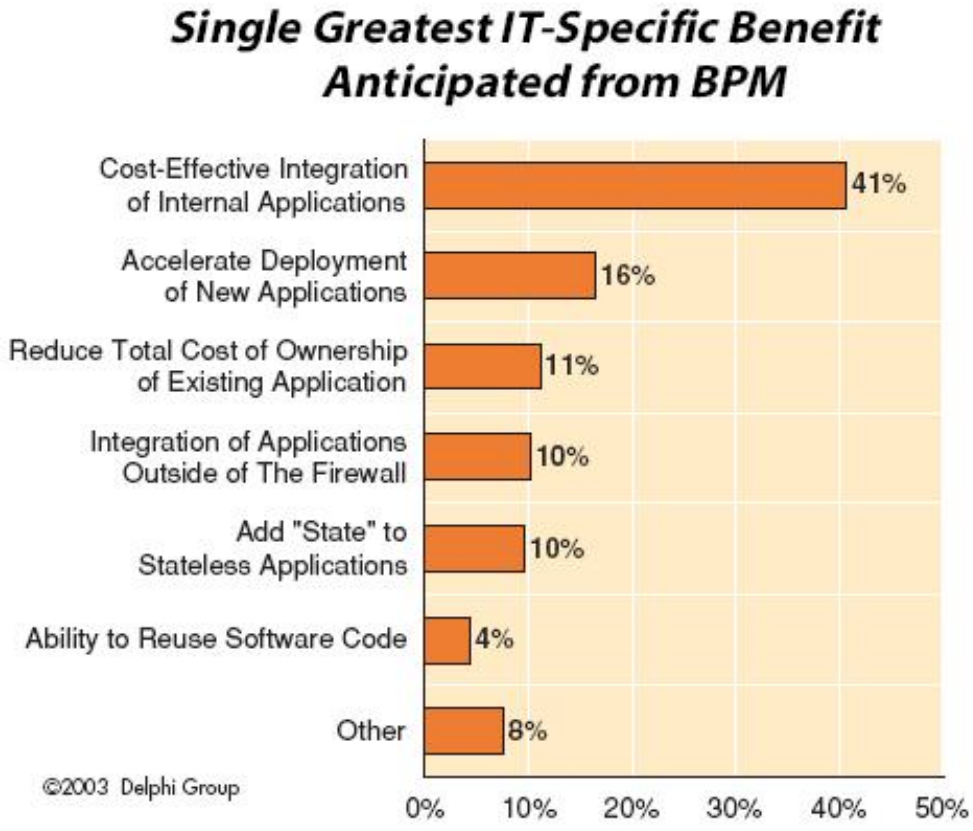


BPM benefits analyzed by Gartner and Delphi Group



(The indicated percentages highlight the impact of the top BPM benefits.)

Source: Gartner Research (May 2003)



Application Areas of BPM?

Conclusion

Effects and Application Areas of BPM

Effects of BPM

Executives
- Fast action by real-time performance analysis and statistics
- Gives hints for process improvements
- Correct decision by improved transparency and statistics

Director
- Real-time monitoring for his request
- Captures risk or exception more rapidly
- Reassigns work items for more effective process

Users
- No need to find out how to work, work items will incoming
- No need to report the progress of work
- Gives more fast and broad understandings of process

System Managers
- Easy and rapid development by separating business processes from application
- Enables Real-time Enterprise by reflecting the changes in business process instantly
- Promotes more process oriented and application integration oriented system architecture

Application Areas

Banking / Finance
Subscription, Loan approval, Call-centers

Manufacture / Common
Sales, Finance/Accounting, HR, Procurement/Manufacture, Outsourcing Management

Government
Voice of citizen, Consumer care, Social security, public administration

Telecommunication
Customer mgmt., Sales, Service mgmt., Call-centers

Clinic
Patient history mgmt., Guideline automation, treatment mgmt.

Education
Learning Process Mgmt., administration, facility mgmt.

BPM for BP Outsourcing

BPM for BP Outsourcing : Background

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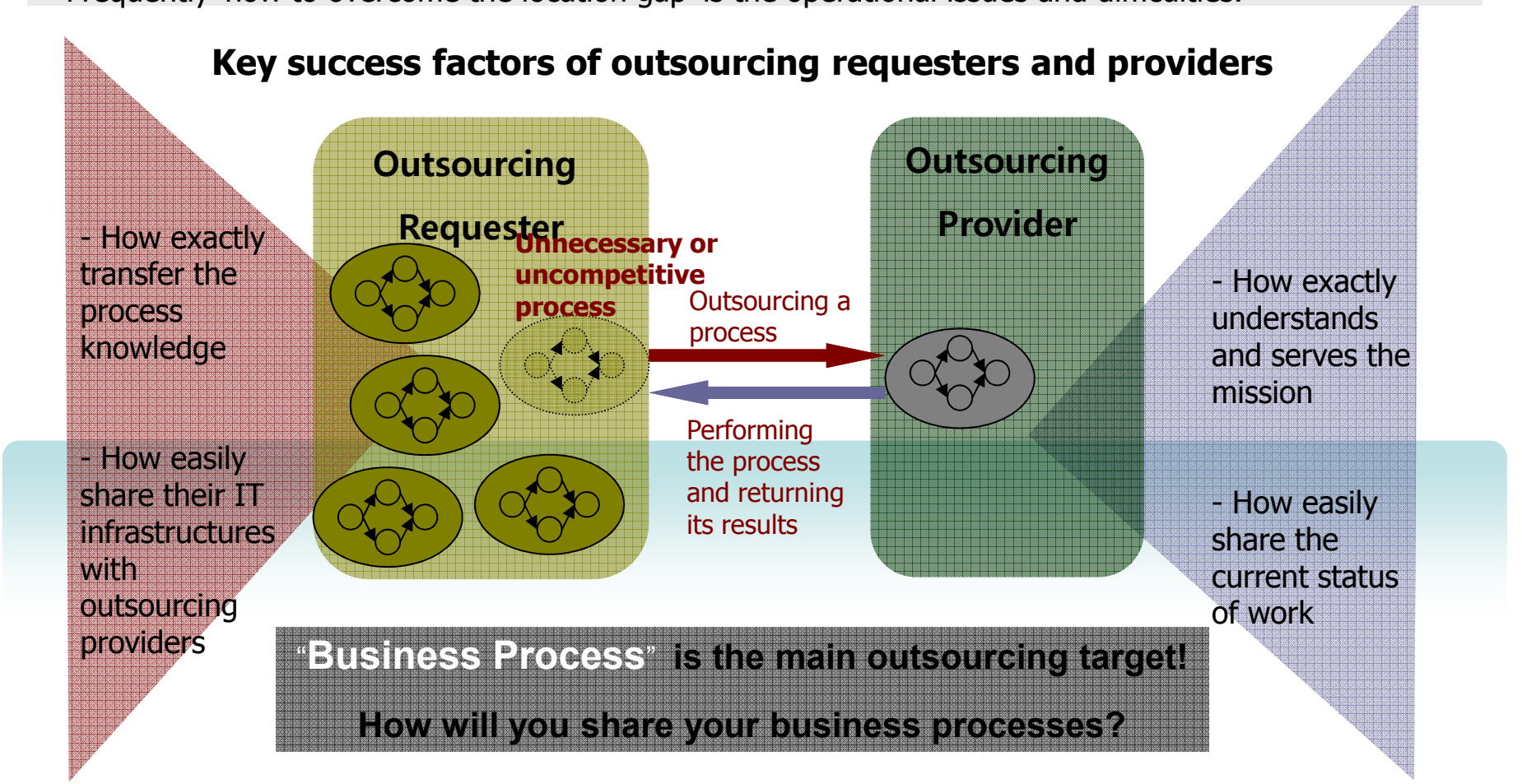
What is BPO

- The assigning of an independent, internal business function to a third-party service provider.
- Aims at making business organizations more slim and flexible by removing not essential, uncompetitive functions.
- Frequently 'how to overcome the location gap' is the operational issues and difficulties.



BPM for BP Outsourcing : Before vs. After

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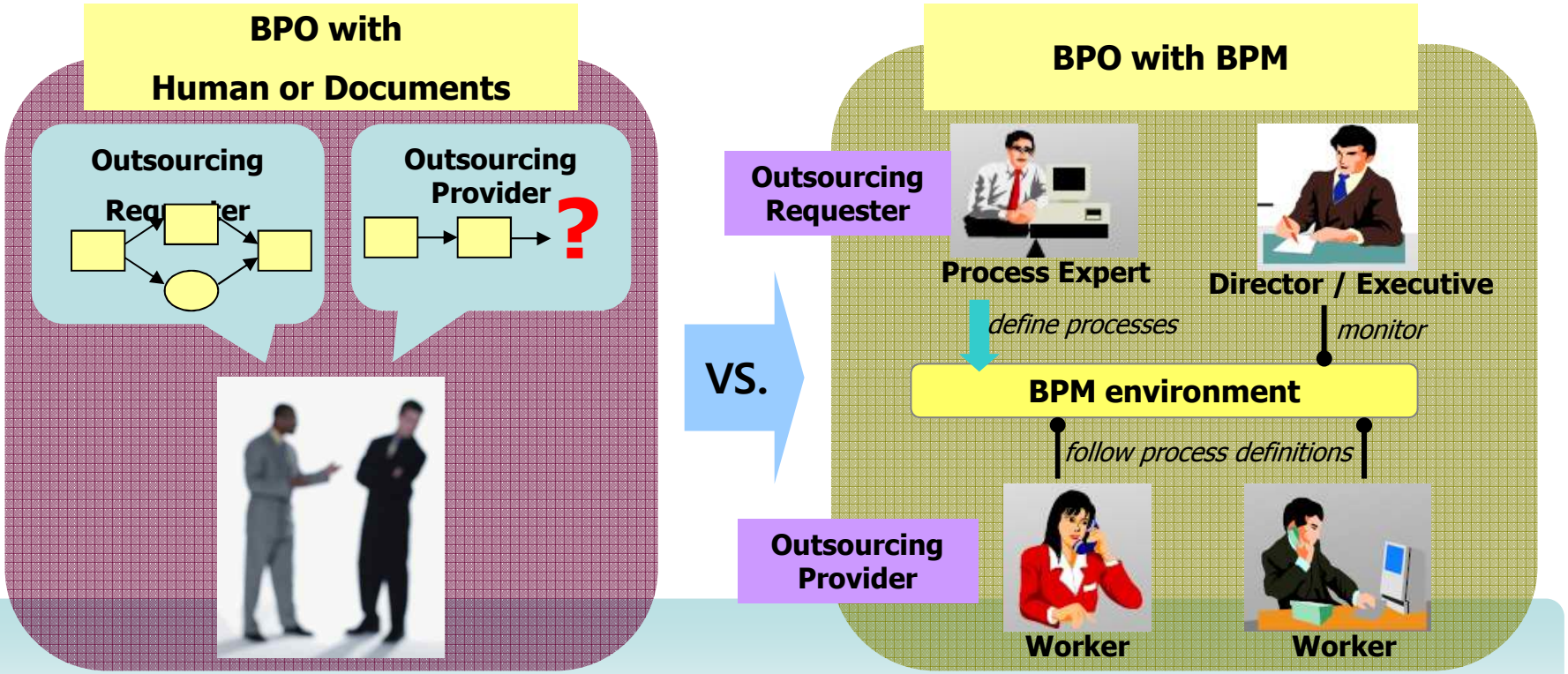
First glance of the BPM effects in BPO



- Difficulty in sharing and change of process
- Impossible to enforce the execution
- Unable to real-time monitoring

- Processes are digitized so that it can be shared and immediately changed
- System controls Process execution and Human works
- Process execution can be monitored and analyzed by software tools

BPM for BP Outsourcing: Effects by BPM

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By providing BPO Services through BPM, Philippines can get more spotlight as an accurate and efficient outsourcing provider in the world.

A BPM-ASP business leaded by government level will encourage BPO provider companies to easily use the infrastructure under low-costs.

	Process Visibility	Process Automation	Process Monitoring	Process Analysis	Application Integration
Outsourcing Requesters	Visualizing and specifying the functions in a process form.	Preventing service providers from the incorrect procedure and results of the outsourced processes.	Monitoring the ongoing status of their outsourced businesses.	Evaluating the performance and quality of results conducted by providers using KPI, etc.	Sharing and checking real-time data between their systems and providers'.
Outsourcing Providers	Easily understands the exact processes they should do.	By just following the automatically received tasks, they work properly.	Don't need to report their work schedule, plan or status of current tasks all the time.	Don't need to report their work done and results every time by writing reports.	No need to re-enter same data into different applications once have entered.

BPM for e-Government

BPM for e-Government: Backgrounds

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e-Government

• e-Government pursues the efficient management of internal organizations and simultaneously the provision of transparent and convenient services for people.

e-Government is considered from the perspective of four types:	
G2G	- Streamlines data over different countries or heterogeneous national agencies. - Reduces a huge amount of cost in exchanging exact documents and performing transaction events.
G2Business	- Ensures complete collaborations among government and private corporations.
G2Citizen	- Provides convenient services for people. - Enables them to check the results or status of their requests
Internal	- Manages governments' organizations for more efficiency. - Shows people the positive and transparent image of bureaucratic organizations.

BPM can becomes a center point where the four types of e-Government are integrated.

The benefit of BPM (1) – Internal Use

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There's no cost-effective way to leverage existing technology investments

→ BPM streamlines processes, reduces paper and administrative costs, empowers employees, and provides visibility into the process.

Challenges in Government Administration	BPM Contributions
- **Manual, paper-based processes** : inefficient, error-prone, and difficult to track	- **Task and Document Management** : streamlines and automates inefficient, and error-prone processes (i.e. the management of correspondence, engineering documents, logistics, and others).
- **Long cycle times** : late payment penalties, inability to take advantage of early payment discounts, delayed revenue collection, and participant dissatisfaction	- **Application, Request and Approval Management** : improves the processes including grants, loans, travel, facilities, equipment and services, and provides automated tracking, routing, and reporting.
- **Isolated Applications** : don't allow the sharing of information and processes among agencies and other governments.	- **Human Resources Management** : addresses Human Resource related needs by providing a solution that automates recruitment,

The benefit of BPM (2) - Portal

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Experts argue that many government agencies must use the next generation of portals, "process portals" to achieve cost savings, efficiency gains, and strategic value.

Process Portal **is comprehensive, core system to bring together business logic and rules that are automated and integrated with multiple supporting backend systems.**

Challenges in Government Portal integration	BPM Contributions
- **For People** **:** Connect users to processes involving multiple applications and make it easy for citizens to obtain services and interact with the government.	- **Deliver on the key vision of e-government** : improve service to citizens and other constituents. support complex actions and exception handling, resulting in a more effective government workforce.
- **privacy and security**	
- **Leverage existing technology investments** : integrating internal processes and	- **Seamless flexibility** : guarantee flexibility for introducing a process layer to government portals, e-mail systems, wireless devices, and other technologies.

**** By bringing human-based processes to the portal dashboard in a unifying platform, the process portal simplifies and streamlines work, empowers strategic decision-making, and gives government the ROI they expect.***

E-Government: overall benefits of BPM

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How will agencies meet the challenges of automating processes and integrating people and systems seamlessly and securely with other agencies, the private sector, other governments, and the citizens they serve?

- **BPM facilitates and accelerates the realization of e-Government.**
- **Both Government and people benefit from the introduction of BPM.**

	Process Visibility	Process Automation	Process Monitoring	Process Analysis	Application Integration
Government	-Clarifying your procedures. - Gaining visibility and control over internal and external processes	- Automating commonly performed tasks - Ensuring privacy and security at all levels of interaction	-Facilitating coping with urgent requests - Contributing to giving better image and belief of government services.	Collecting the statistical data from the processes completed by government agencies.	Eliminating redundancies in systems requested and built by various agencies
People	Believing in the internal tasks of government	Not having to worry about the inaccurate results of their request	Easy to check the ongoing status of their requests	Possessing their personalized view of their history of requests for government	No barrier to access necessary systems wherever systems belong.

BPM in IT industry

BPM for IT industry – Old IT vs. New IT

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Old IT

- **First Fifty Years** of IT
- **Cost-Based Competition**
- Automate **Data** Processing
- Operational Efficiency for what you already do (**Doing things right**)
- Do **Best Practice**
- Ignore Unique Best-in-Class

New IT

- **Next Fifty Years** of IT
- **Time-Based Competition**
- Automate **Value-Delivery** System
- Strategic Advantage for changing what you do (**Doing the right things**)
- Unique **Best-in-Class**

Time is the **scarcest resource** and unless it is managed nothing else can be managed.

--Peter F. Drucker

Information technology allows us to run the company **differently**. It allows us to make massive resource allocation decisions that we can now apply more resources to things that we think are going to grow the company for the long term.

–Jeff Immelt, GE CEO

Economies are measured in terms of **the intellectual content** embedded in the products and services they sell.

--Craig Barrett, Intel CEO

The importance of Process Management

This is the New IT

BPM for IT industry – BPM is a service market

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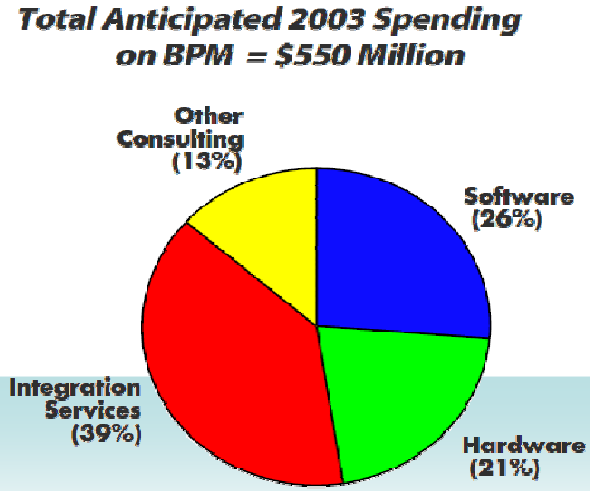
BPM market explodes in both way of service and product

The total revenue of the BPM market is expanding into the amount of 2.5 billion dollars. In addition, about the 40 percent on the Fortune 1000 list possessed the BPM software wholly or in part within their organizations in 2005, and almost the 90 percent is estimated to use BPM as enterprise nervous system in 2007

-- Gartner

The value added of BPM originates from relevant services rather than the software product itself. The revenue of services (0.8 billion dollars) far exceeds that of the BPM product sales (0.1 billion dollars)

-- Ovum



There should be a large market for those IT services and professionals:

- **BPM consultants who is responsible for modeling business processes**
- **System administrators who work on coordinating legacy systems with BPM**
- **System Developers who will writes source codes for BPM based applications**

Thank you

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