

Powering Dynamic Processes with ILOG BRMS

ILOG BRMS Briefing

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- The Path to Dynamic BPM
- Understanding BRMS
- How BRMS Complements BPM
- ILOG BRMS and IBM

Are Your Business Systems “Dynamic”?

Etymology

From French **dynamique** < Ancient Greek **δυναμικός** (dunamikos) "powerful" < **δύναμις** (dunamis) "power"

Pronunciation

- IPA: /daɪˈnæmɪk/
-  Audio (US)^{help file}

Adjective

dynamic (*comparative* more dynamic, *superlative* most dynamic)

1. Changeable; active; in motion.
*The environment is **dynamic**, changing with the years and the seasons.*
*He was a **dynamic** and engaging speaker.*
2. Powerful
3. Able to change and to adapt (also in computing)
4. (*music*) Having to do with the volume of sound.
*The **dynamic** marking in bar 40 is forte.*

Synonyms

- (*changeable, active*): active, fluid, moving
- (*powerful*): energetic, powerful

Antonyms

- static

Source: <http://en.wiktionary.org/wiki/dynamic>



<http://www.dynamicarchitecture.net>

CEOs Worry About Change

83%

Expect substantial or very substantial change

The change gap

Triplies

98%

Plan business model changes



Source: IBM Global CEO Study 2008



■ Reduces organizational agility

- Difficulties in responding to evolving business conditions



■ Reduces employee productivity

- Manual intervention required to deal with complexities of operations



■ Increases load on IT

- Keeping applications/systems updated & current across the enterprise consumes time and resources

What is Business Process Management?



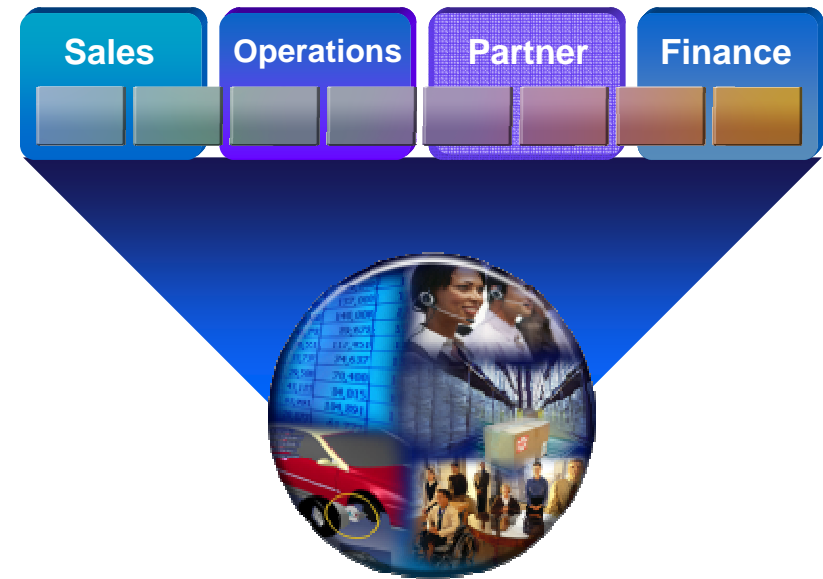
BPM is a discipline consisting of software and expertise to improve the performance, visibility, and agility of business processes

How does it work?

BPM improves processes that span IT systems, people and information by:

- Providing tools for modeling and implementing end-to-end processes
- Orchestrating and automating process activities across functional boundaries
- Integrating disparate systems and data/information sources
- Providing real-time visibility and actionable insights to enable continuous process improvement

Business Processes



Agility Enablers:

Business Rules Management

Active Content

Policy Management

Service Selection

Business Events Management

Analytics

IBM Brings a Number of Agility Enablers to Increase the Flexibility and Responsiveness of its BPM Suite

IBM BPM Suite

Powered by Smart SOA™

Foundational

Extend
End-to-End

Transform

Adapt
Dynamically

Basic

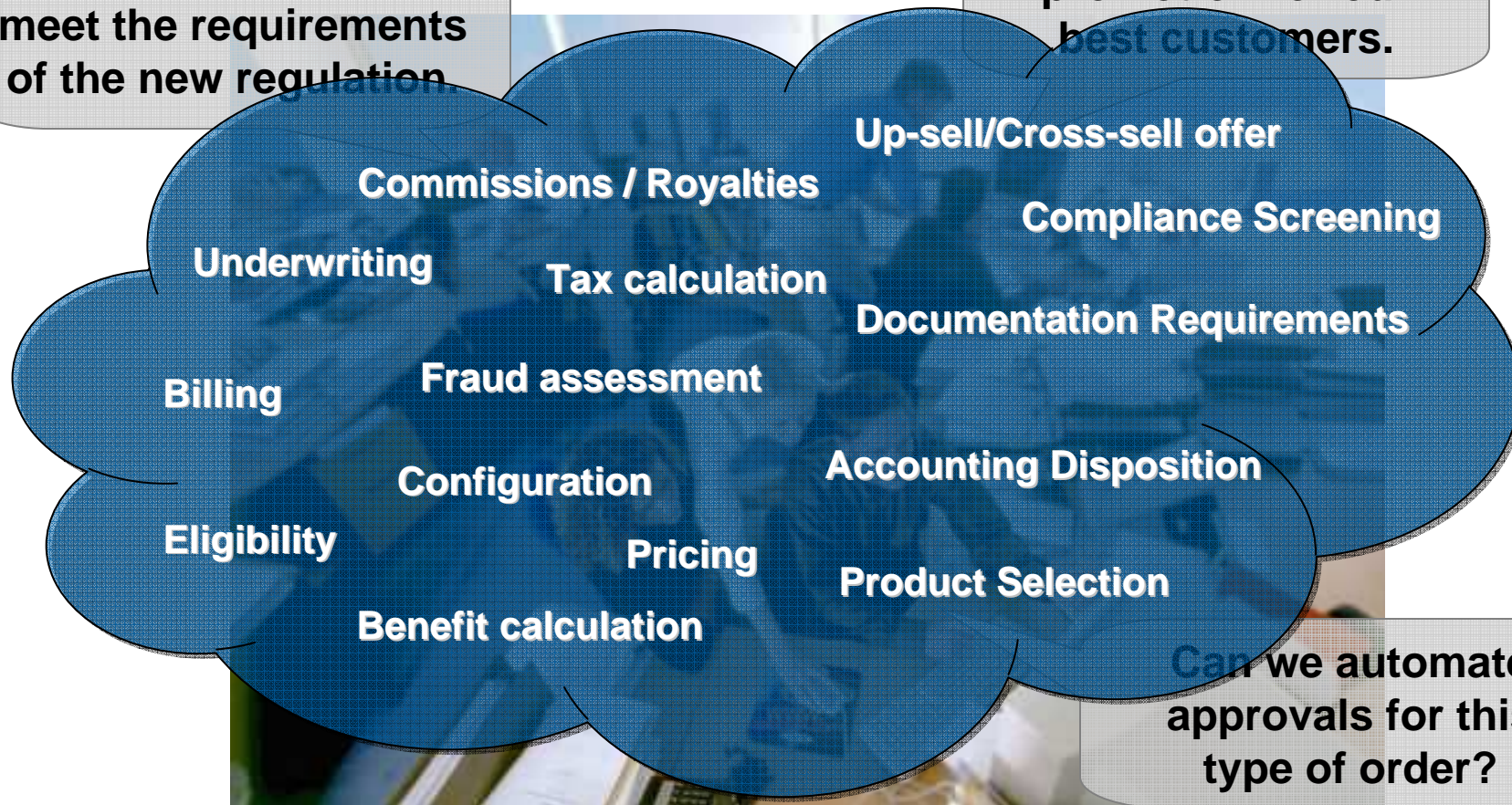
Advanced

Understanding BRMS

Business Decisions are Everywhere...

We need to add an eligibility check to meet the requirements of the new regulation

Let's create a special promotion for our best customers.



Can we automate approvals for this type of order?

And Changing Frequently

Easy, Fast, Reliable Change with BRMS

- Eliminate decision silos
- Make decision logic accessible to Business and IT
- Reduce maintenance time/cost
- Increase decision automation
- Implement fine-grained, context-specific logic

Where Business Rules Typically Exist

```
typedef __WIN__  
/*  
 Before performing any socket operation (like retrieving hostname  
 in init_common_variables we have to call WSASStartup  
 */  
{  
  WSADATA WsaData;  
  if (SOCKET_ERROR == WSASStartup (0x0101, &WsaData))  
  {  
    /* errors are not read yet, so we use english text here */  
    my_message(ER_WSAS_FAILED, "WSASStartup Failed", MYF(0));  
    unireg_abort(1);  
  }  
}  
#endif /* __WIN__ */  
  
if (init_common_variables(MYSQL_CONFIG_NAME,  
                          argc, argv, load_default_groups))  
  unireg_abort(1); // WTF! do exit  
  
init_signals();  
if (!!(opt_specialflag & SPECIAL_NO_PRIOR))  
  my_thread_setprio(pthread_self(),CONNECT_PRIOR);
```

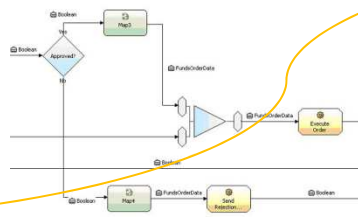
Applications



Documents



People



Processes

Business Rule Management System

User Tools

Rules are Defined, Analyzed and Maintained

Rules + Metadata

Rule Repository

Rules are Stored and Shared

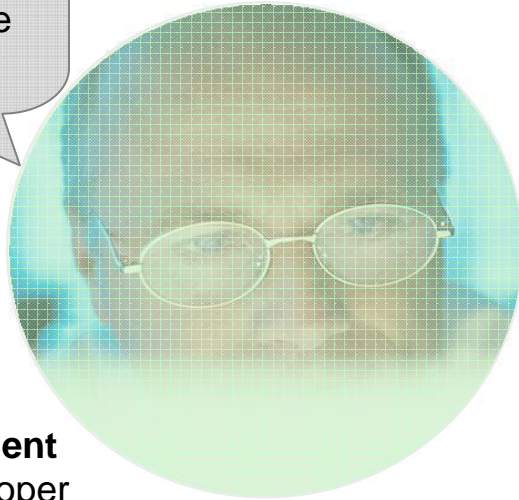
Rule Server

Rules are Deployed, Executed and Monitored

Varying Needs Across the Organization



I need a comprehensive rules development and maintenance environment



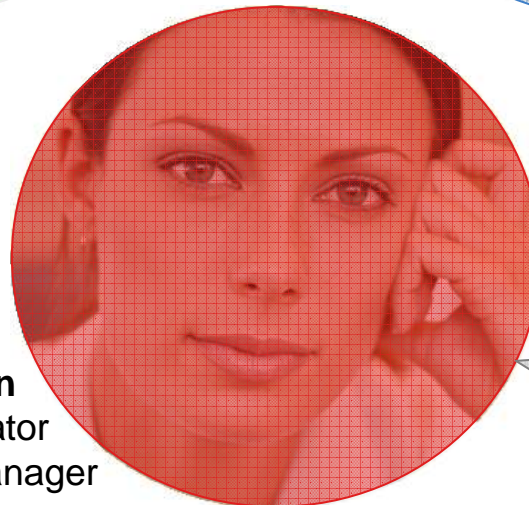
Development
Rule Developer
Rule Modeler
Business Analyst

I need easy, efficient and reliable policy change delivery



Line of Business
Business Partner
Policy Manager
Line of Business Manager

Production
IT Administrator
System/Ops Manager



I need performance, scalability, monitoring and reliability of operations

IBM ILOG JRules



Rule Studio

Developers

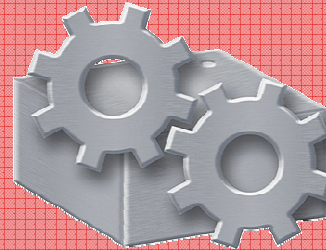


Rule Scenario Manager



Rule Team Server

Business Users



Rule Execution Server

Administrator

Benefits of ILOG BRMS



Reduced lead times for changes

Reduced time to create or update product promotions from weeks to hours (retail)

More personalized client interactions

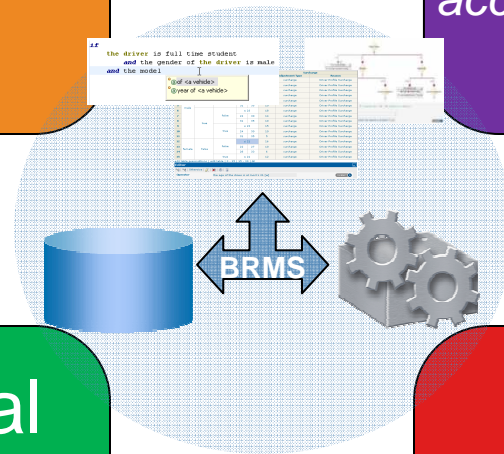
10x improvements in acceptance of cross-sell offers (retail banking)

Internal/external compliance

Support of regulations that vary by customer location and product line (insurance)

Business – IT alignment

Reduced new policy implementation by 50% (financial services)



Watch ILOG customer testimonials at: <http://www.ilog.com/dialog/>

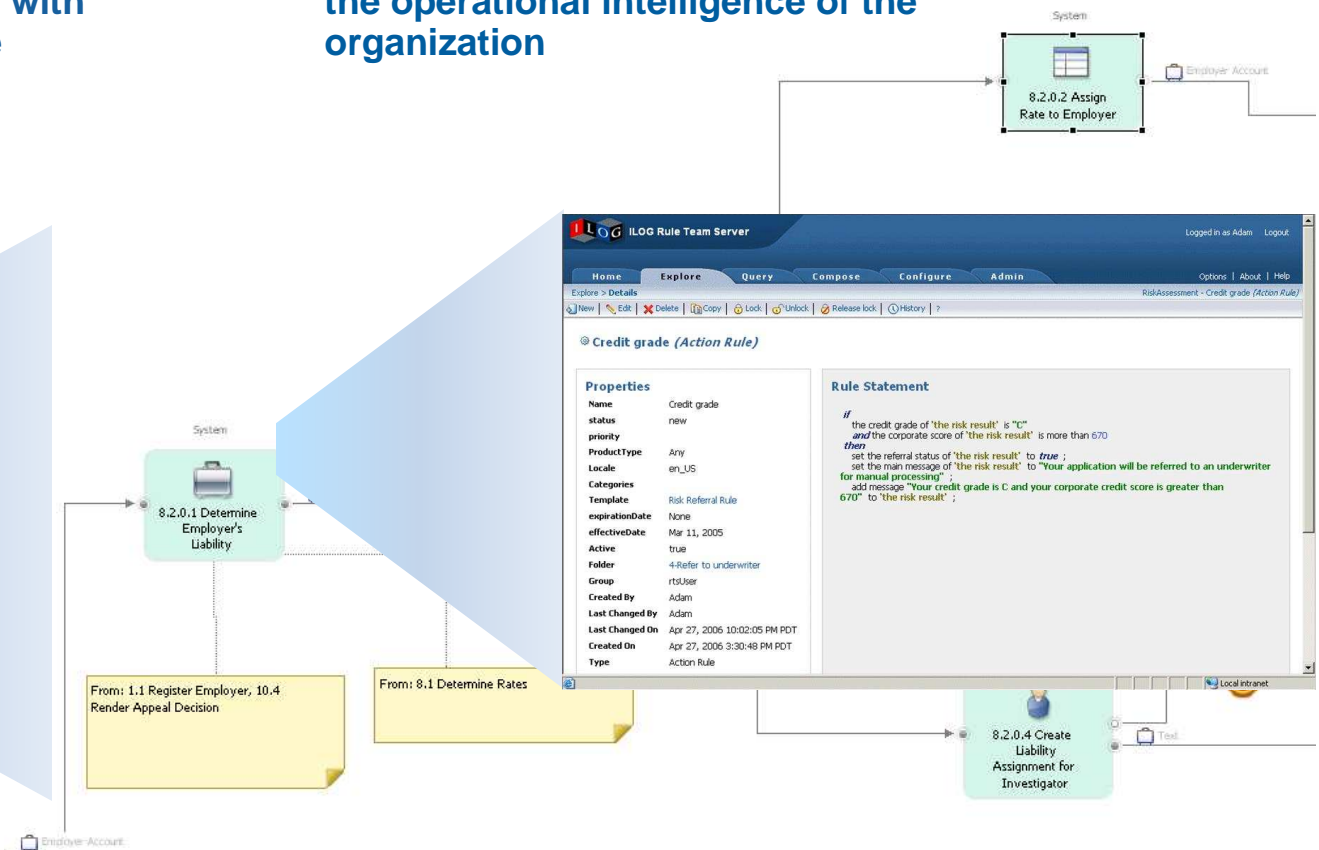
How BRMS Compliments BPM

Process Mgmt

- Describes the “how” of the core activities of the enterprise
- Combines automatable and human elements
- Is fundamentally concerned with operational efficiency of the organization

Rules Mgmt

- Determines the “what” of enterprise activity
- Is focused on automating decisions
- Is fundamentally concerned with the operational intelligence of the organization

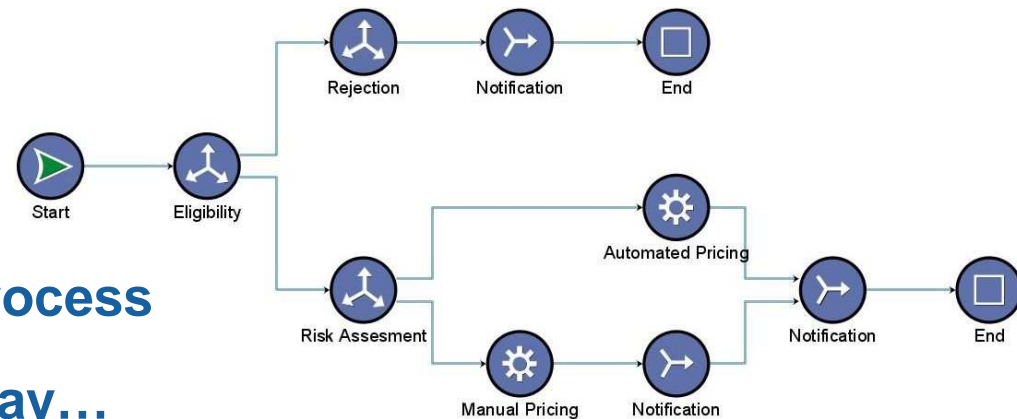


Why Separate Process & Rules Management?



- ✓ Increase business agility by allowing business users to manage decision logic
- ✓ Streamline and stabilize processes by externalizing decision logic
- ✓ Enable re-use of decisions across different processes, applications and systems
- ✓ Enable automation of complex, variable decisions
- ✓ Effectively manage large and evolving sets of rules

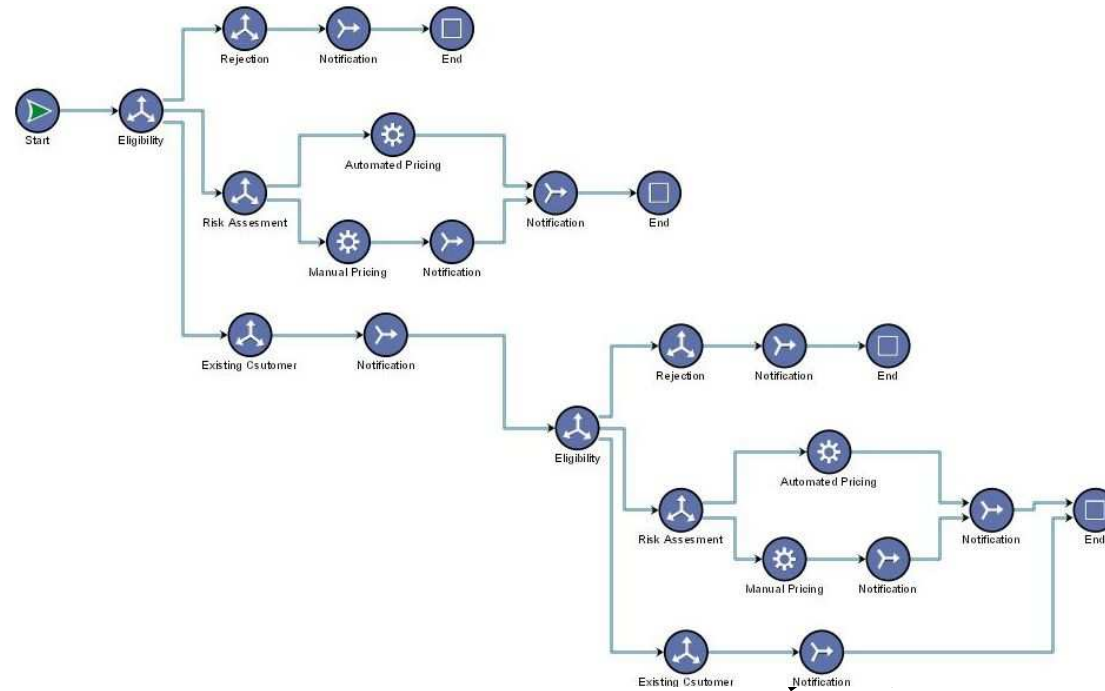
**Streamlined process
works fine today...**



- **Until**
 - **New Product**
 - **New Policy**
 - **New Regulation**
 - **New Pricing Rules / Model**
 - **New Scoring Rules / Tables**

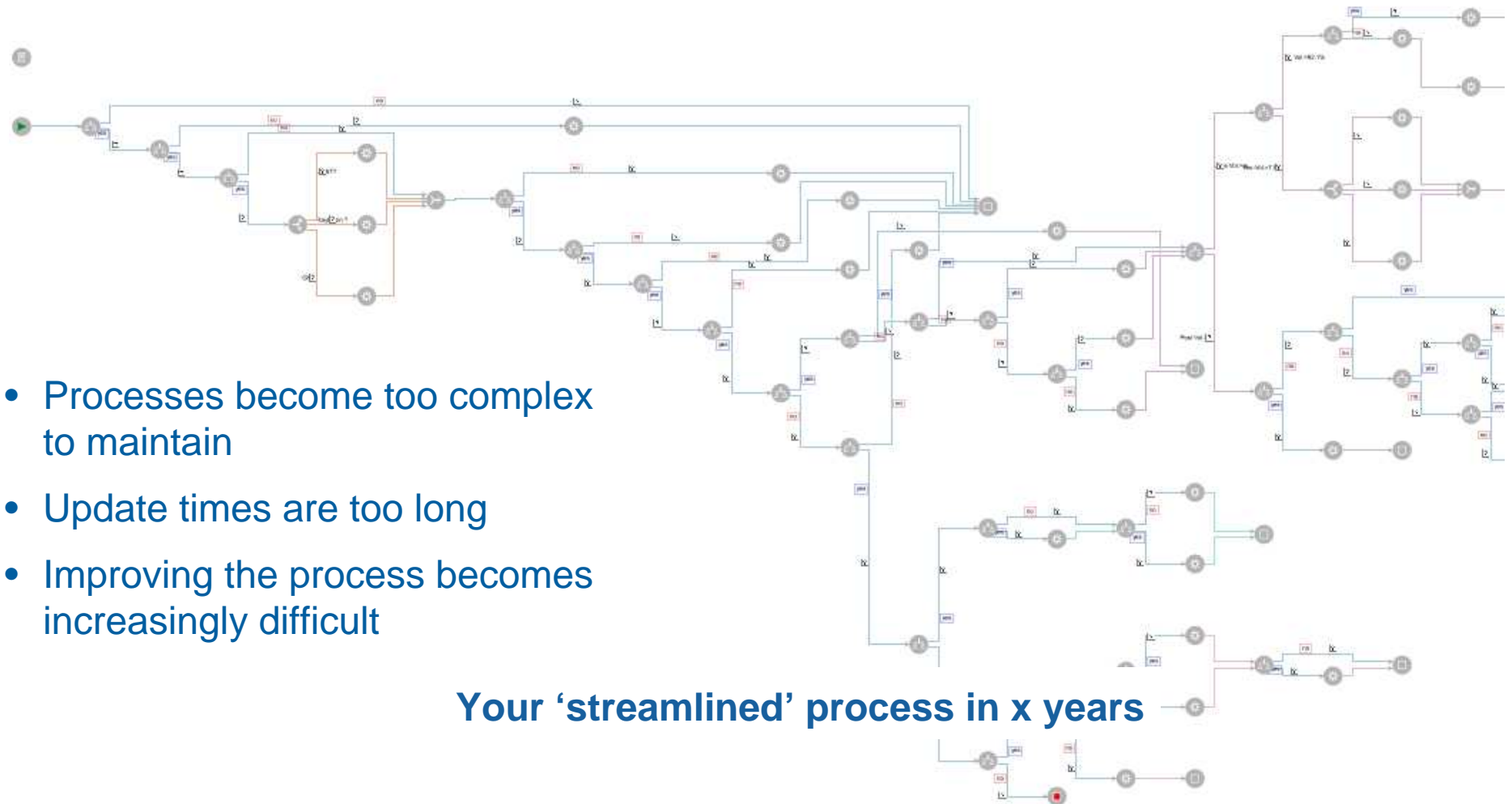
...

Managing the Decision Intensive Process

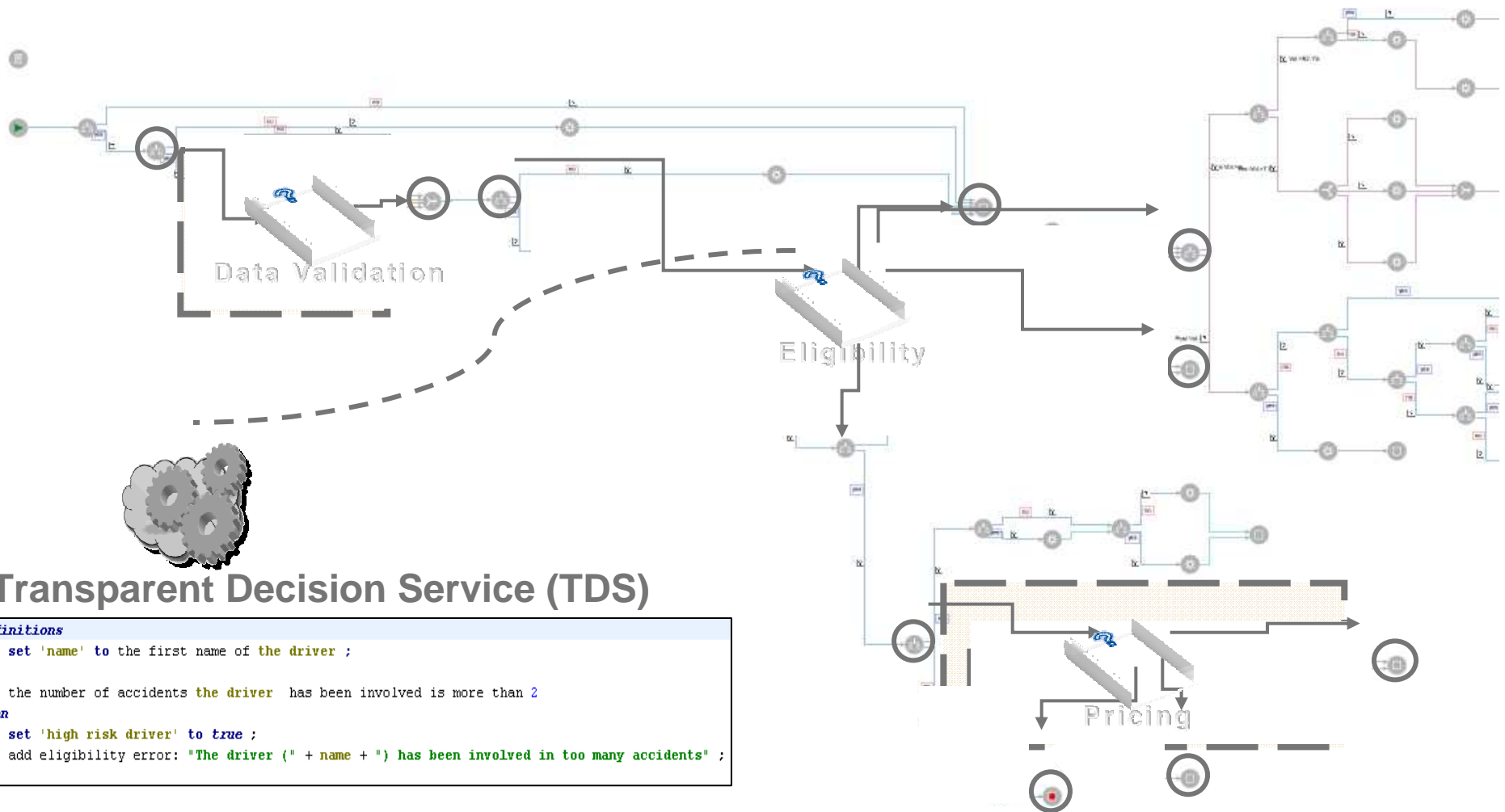


Your 'streamlined' process in x months

Managing the Decision Intensive Process



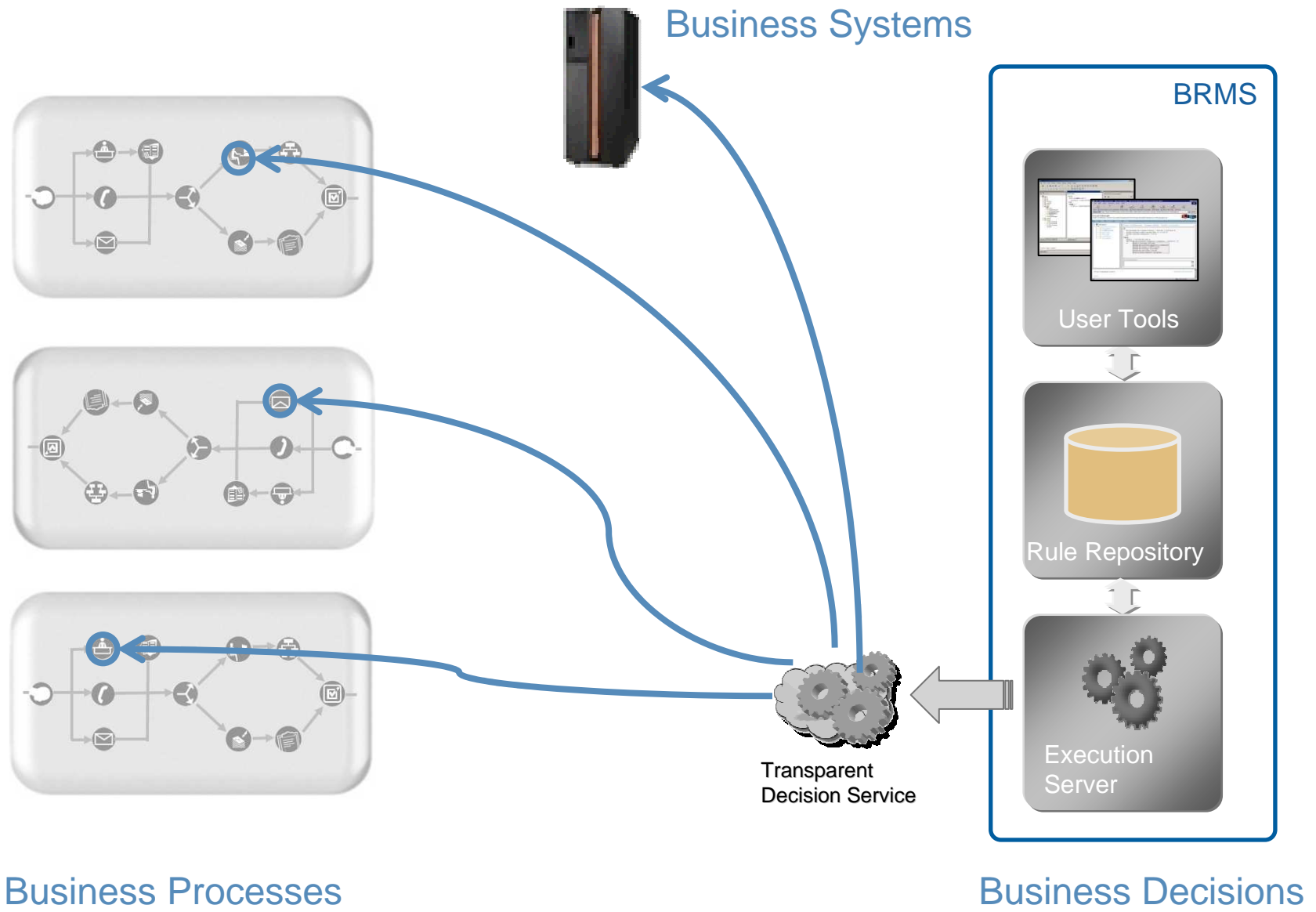
Externalize Your Business Decisions



Transparent Decision Service (TDS)

```
definitions
  set 'name' to the first name of the driver ;
if
  the number of accidents the driver has been involved is more than 2
then
  set 'high risk driver' to true ;
  add eligibility error: "The driver (" + name + ") has been involved in too many accidents" ;
```

Change Once, Impact Anywhere



ILOG BRMS-BPM Examples



Customer	Process	Results
Vision Service Plan (VSP)	Healthcare Claims Processing	<ul style="list-style-type: none"> • Speed to market gain over 50% • Changes to business rules now implemented in days • Achieved significant productivity gain on 1M+ claims processed on a monthly basis
<p>Join a March 25 webcast featuring VSP at: http://www.summitwebseminars.com/ILOGSOA/</p>		
Bank of the West	Commercial Loan Origination	<ul style="list-style-type: none"> • 93% improvement for application approval (15 days to 1) • Greater control & easier audits driving significant cost savings
Junta de Castilla y León	Government Social Benefits Eligibility	<ul style="list-style-type: none"> • Better service delivered to the citizens: clear & consistent application processing • Transparency & auditability of all scoring, eligibility & computation rules • Rapid response to changes in central or regional government policies

ILOG BRMS and IBM

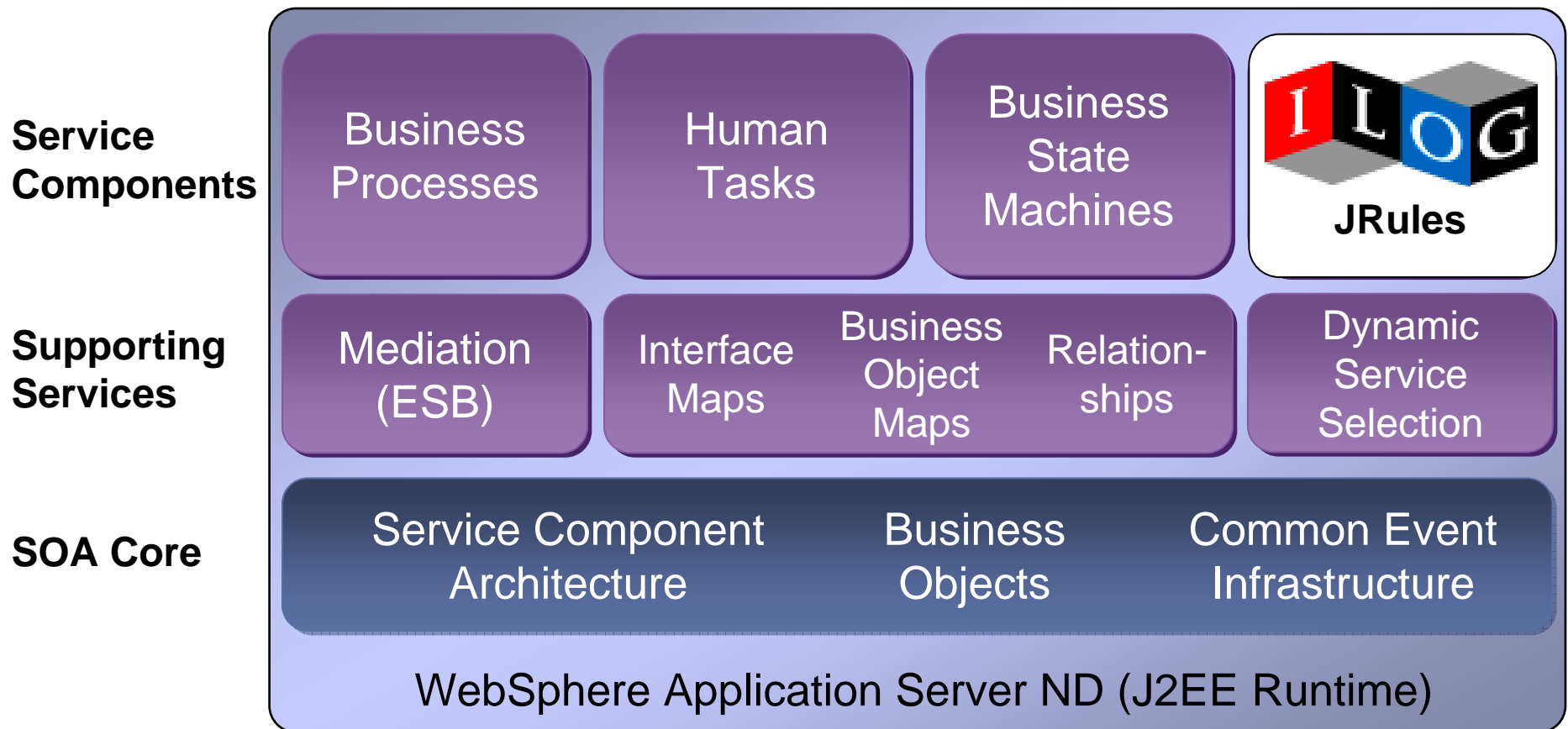
- Longtime WebSphere Partner
 - ILOG BRMS integration with WebSphere BPM
 - ILOG BRMS complements WBS Fabric, WebSphere Business Events + Industry Frameworks and Solutions
- “SOA Specialty” certification
 - ILOG supports Eclipse, SCA, CEI
- IBM FileNet Partnership
 - ILOG awarded FileNet “***ISV Partner of the Year 2006***”
- Support for Mainframe Systems and Legacy Applications
- ILOG’s BRMS Leadership
- Now IBM Family!

Ready for

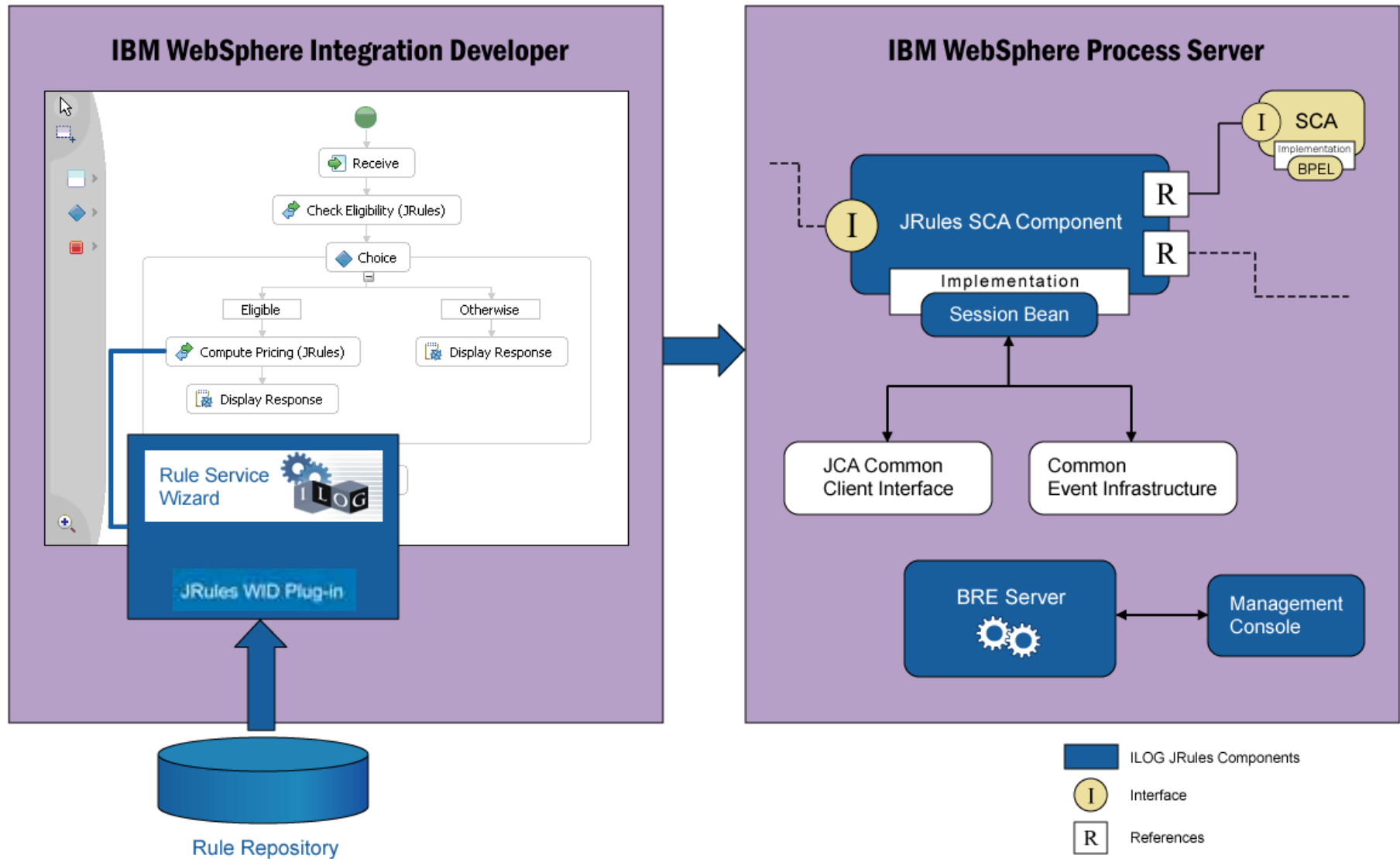
IBM | **SOA**

Specialty

How does JRules fit with WPS?

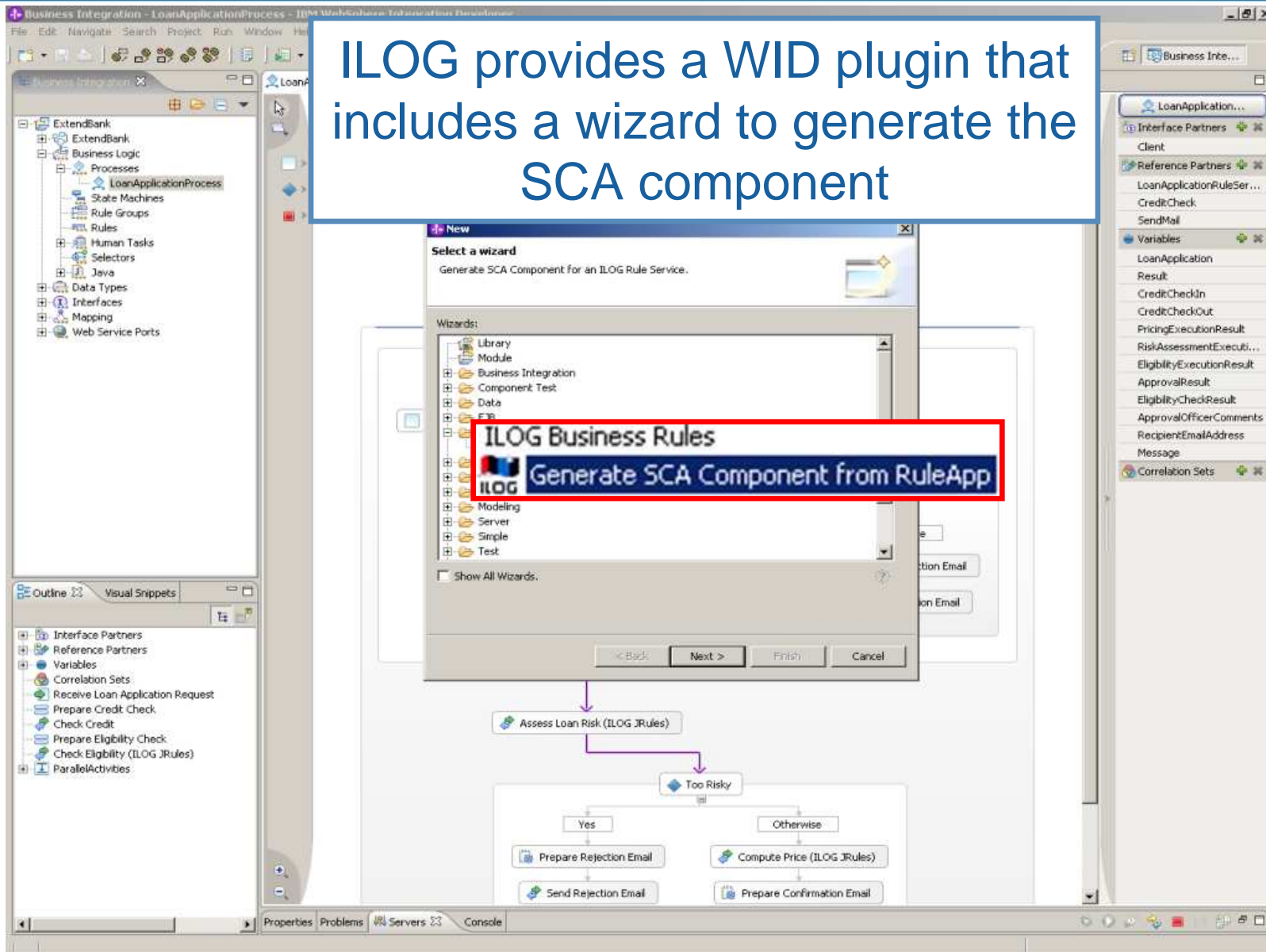


Integration with IBM WPS



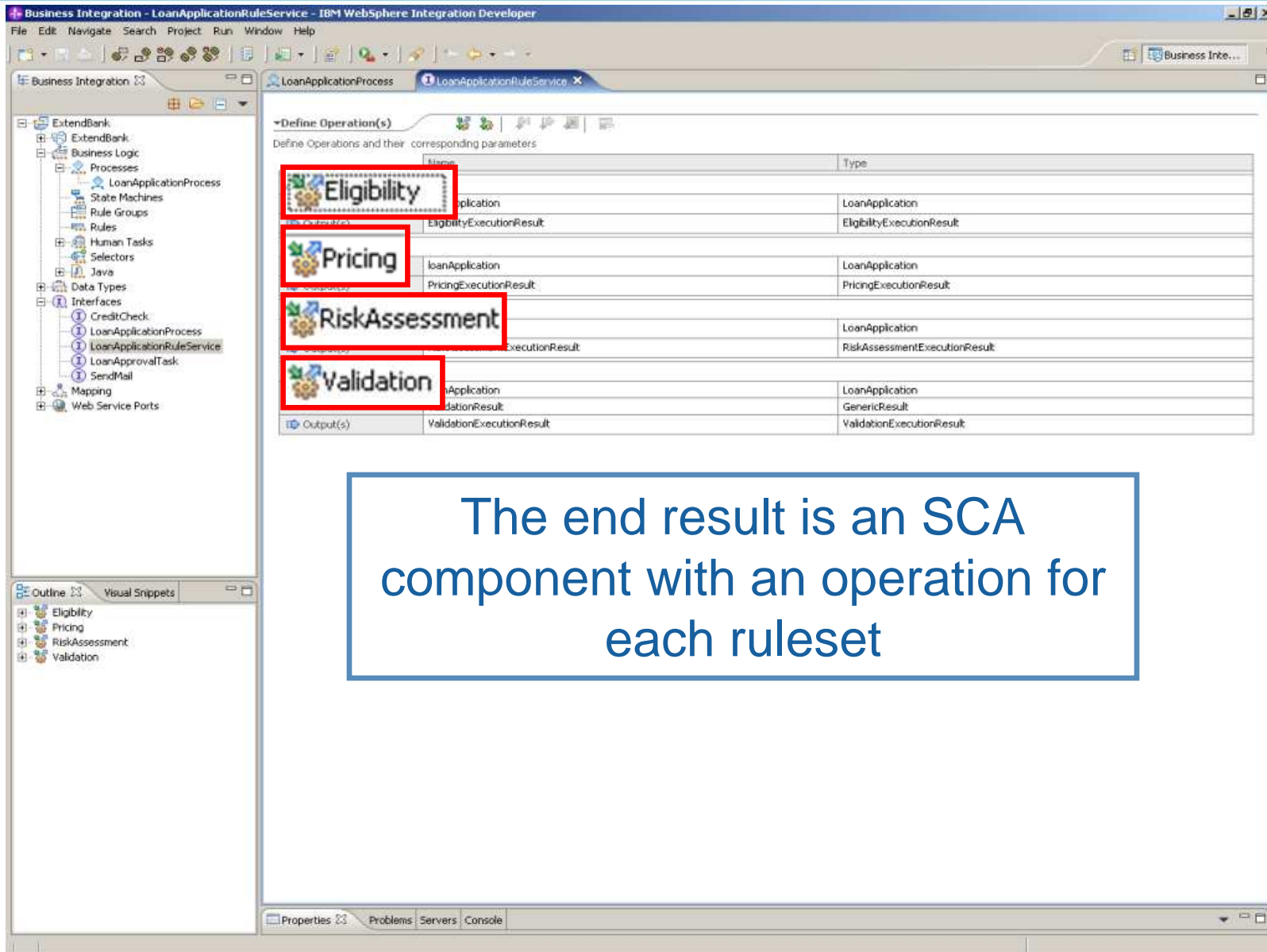
Integrating with WPS through SCA

ILOG provides a WID plugin that includes a wizard to generate the SCA component



The screenshot displays the IBM Business Integration Studio interface. A central dialog box titled "New" is open, showing a "Select a wizard" screen. The wizard list includes "ILOG Business Rules" and "Generate SCA Component from RuleApp", which is highlighted with a red box. Below the dialog, a process diagram is visible, starting with "Assess Loan Risk (ILOG JRules)" leading to a decision diamond "Too Risky". The "Yes" branch leads to "Prepare Rejection Email" and "Send Rejection Email". The "Otherwise" branch leads to "Compute Price (ILOG JRules)" and "Prepare Confirmation Email". The left sidebar shows a project tree with "LoanApplicationProcess" selected. The right sidebar shows a list of variables and correlation sets for the "LoanApplication..." process.

Integrating with WPS through SCA



The screenshot shows the 'Define Operation(s)' dialog in IBM WebSphere Integration Developer. The dialog is titled 'Define Operation(s)' and contains a table with the following data:

Name	Type
Eligibility	LoanApplication
EligibilityExecutionResult	EligibilityExecutionResult
Pricing	LoanApplication
PricingExecutionResult	PricingExecutionResult
RiskAssessment	LoanApplication
RiskAssessmentExecutionResult	RiskAssessmentExecutionResult
Validation	LoanApplication
ValidationExecutionResult	GenericResult

The operation names 'Eligibility', 'Pricing', 'RiskAssessment', and 'Validation' are highlighted with red boxes. The 'Output(s)' row shows 'ValidationExecutionResult'.

The end result is an SCA component with an operation for each ruleset

Integrating with WPS through SCA

An Integration Developer can use the JRules SCA component without any knowledge of the business rules

Check Eligibility (ILOG JRules)

Partner: LoanApplicationRuleService Browse...

Interface: LoanApplicationRuleService

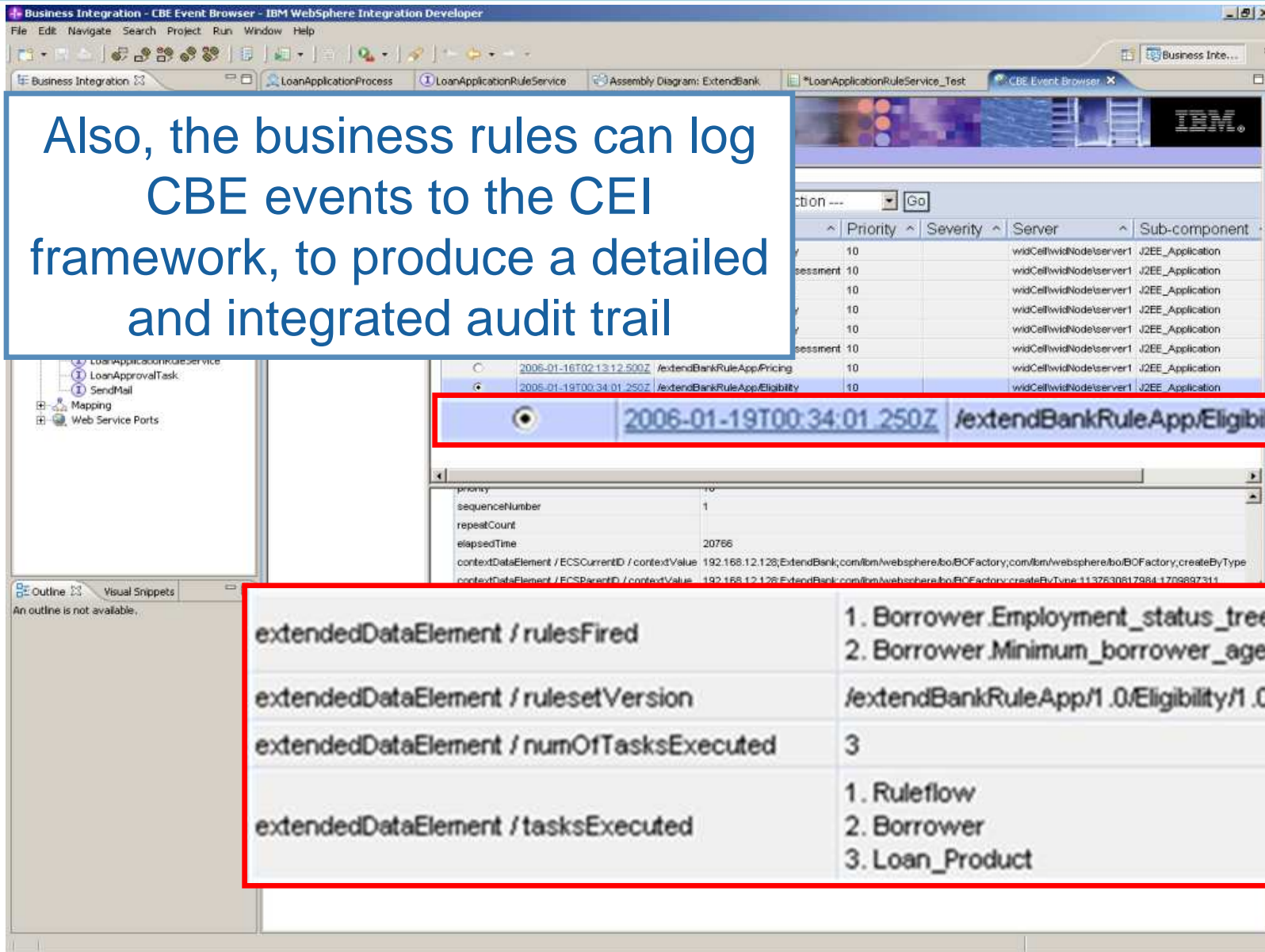
Operation: Eligibility

Use Data Type Variables

	Name	Variable	
Input(s)	loanApplication	LoanApplication	...
Output(s)	EligibilityExecutionResult	EligibilityExecutionResult	...

Integrating with WPS through SCA

Also, the business rules can log CBE events to the CEI framework, to produce a detailed and integrated audit trail



The screenshot shows the IBM WebSphere Integration Developer interface. The 'CBE Event Browser' window displays a table of events. A red box highlights a specific event: `2006-01-19T00:34:01.250Z /extendBankRuleApp/Eligibility`. Below this, another red box highlights a detailed view of the event's extended data elements.

Priority	Severity	Server	Sub-component
10		widCell/widNode/server1	J2EE_Application
10		widCell/widNode/server1	J2EE_Application
10		widCell/widNode/server1	J2EE_Application
10		widCell/widNode/server1	J2EE_Application
10		widCell/widNode/server1	J2EE_Application
10		widCell/widNode/server1	J2EE_Application
10		widCell/widNode/server1	J2EE_Application
10		widCell/widNode/server1	J2EE_Application
10		widCell/widNode/server1	J2EE_Application
10		widCell/widNode/server1	J2EE_Application

priority	10
sequenceNumber	1
repeatCount	
elapsedTime	20766
contextDataElement / ECSCurrentID / contextValue	192.168.12.128:ExtendBank;com.ibm/websphere.bo/BOFactory;com.ibm/websphere.bo/BOFactory;createByType
contextDataElement / ECSParentID / contextValue	192.168.12.128:ExtendBank;com.ibm/websphere.bo/BOFactory;createByType;1137630617984;1709897311

extendedDataElement / rulesFired	1. Borrower_Employment_status_tree_1 2. Borrower_Minimum_borrower_age
extendedDataElement / rulesetVersion	/extendBankRuleApp/1.0/Eligibility/1.0
extendedDataElement / numOfTasksExecuted	3
extendedDataElement / tasksExecuted	1. Ruleflow 2. Borrower 3. Loan_Product

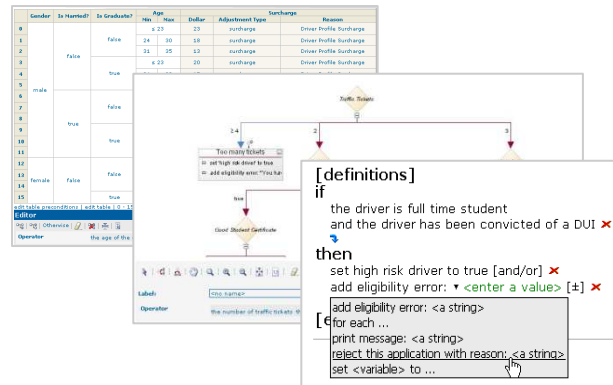
■ Integrated Tooling

- Development Environment Built on Eclipse
- Integrates with SCC systems (Rational Clearcase)
- Generates SCA-compliant service

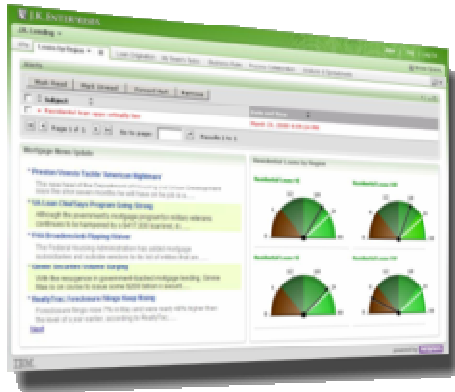
■ Run-Time Integration

- 100% J2EE
- Common Event Infrastructure (CEI) support
 - Supported by WebSphere Monitor
- JMX Support
 - Supported by Tivoli

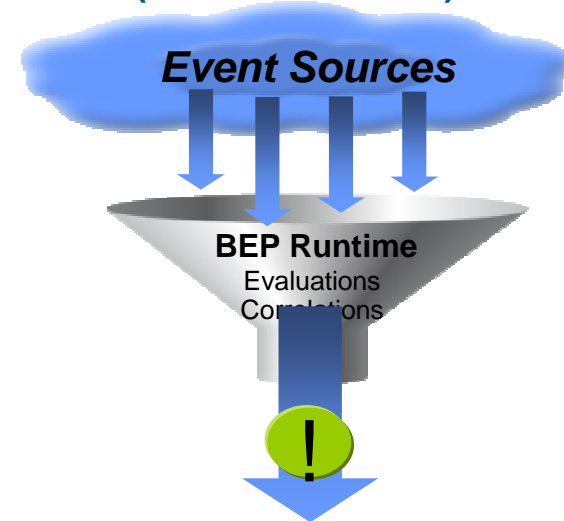
Decide (Business Rules)



Monitor (BAM)



Detect (Business Events)



Orchestrate



Know What's Happening, When to Act, and What to Do

- On-demand Webinar Series – all available at <http://www.ilog.com/products/businessrules/>
 - Early education
 - **Buyer's Guide** - what one needs to know when buying a BRMS
 - **BRMS in Action** - role-based usage scenarios demos
 - Advanced education
 - **Best Practices** - implementation best practices & methodology
 - **Hot Tips** – deep technical insights
 - IT Modernization & Transformation
- **BRMS Resource Center** – <http://www.ilog.com/brms>
 - Free 6 month trial download
 - White papers
 - Use cases
 - Forums and blogs on business rules

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Questions & Answers

Thank You