

WEBSPHERE DECISION SERVER - BPM & SOA ADOPTION ON SYSTEM z

WAS z, CICS Events, BRMS and WBE Connectivity and Integration on System z



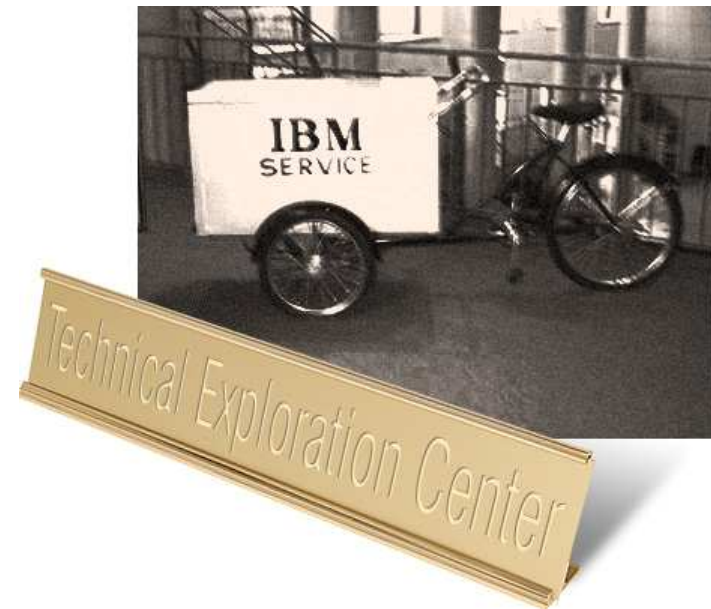
Welcome to the Technical Exploration Center

- Introductions
- Access restrictions
- Restrooms
- Emergency Exits
- Smoking Policy
- Breakfast/Lunch/Snacks – location and times
- Special meal requirements?



Introductions

- Please introduce yourself
- Name and organization
- Current integration technologies/tools in use



What do you want out of this Exploration session?

Agenda – Decision Management

IBM Software



Solution Overview

- 1** *Decision Server Concepts*
- 2** *Business Events*
- 3** *Business Rules*

Solution Demonstration

- 4** *CICS Business Events*
- 5** *Business Event Processing*
- 6** *Business Rules Processing*



Business Requires Greater Decision Agility & Effectiveness

Automate, improve and govern high-volume, operational decisions

Business agility and responsiveness



Improve process automation, flexibility and efficiency

Shorten response time in actionable situations

Business alignment, compliance and transparency



Empower LOB users to manage and improve decisions

Maximize decisions for resources, risk and value

Smarter personalization and self-service

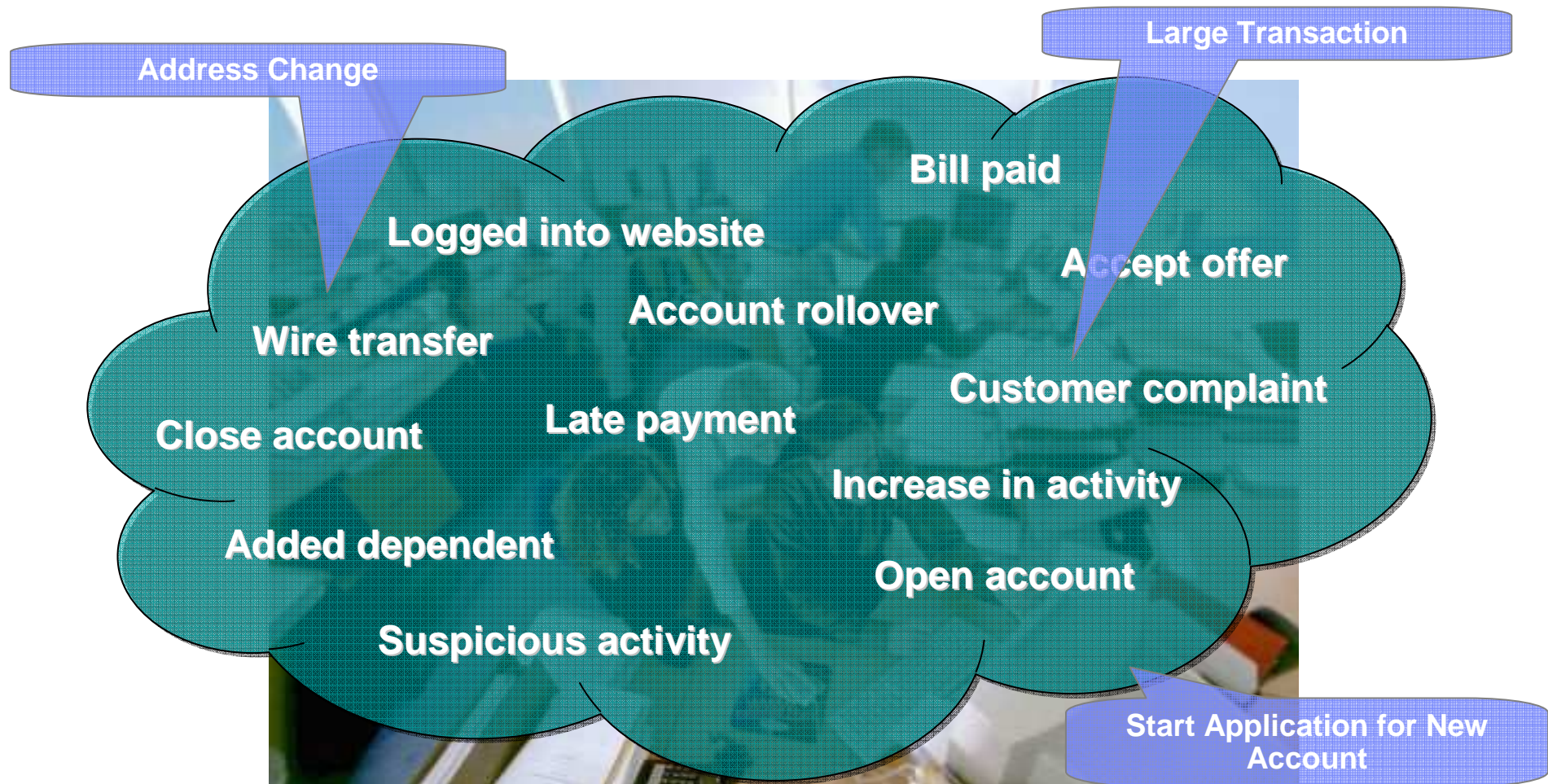


Achieve finer-grain personalization in customer interaction

Move decision-making to point of contact with customers

Greater Decision Agility and Effectiveness

Business Events Indicate The Need for Decision Management to Make Decisions



“Events... pass silently back and forth... as unrelated pieces of communication. They are a source of great power, for when they are correlated, they yield a wealth of information.”

-Dr. David Luckham, Professor Emeritus, Stanford University

Greater Decision Agility and Effectiveness

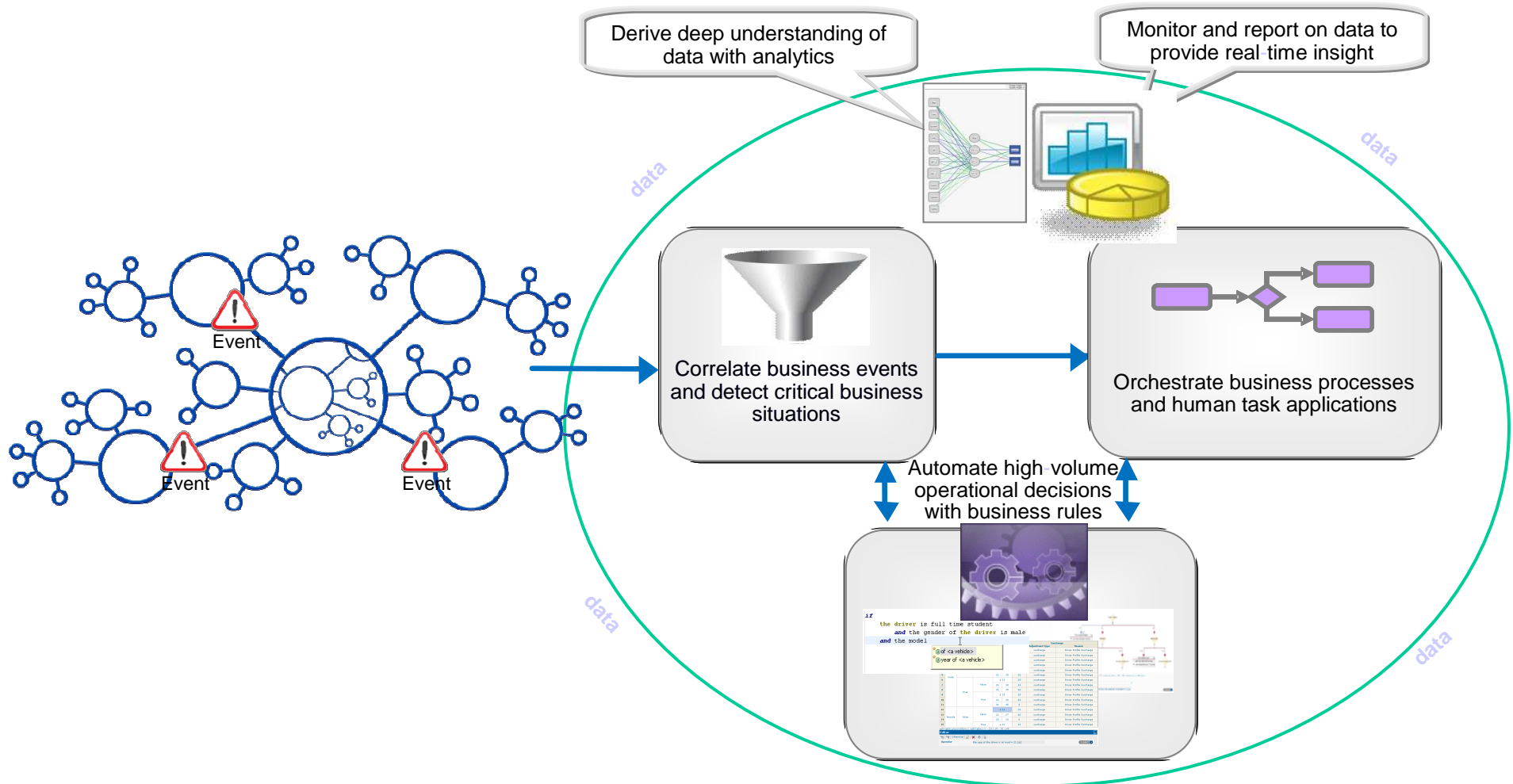
Business Rules Codify Logic For Deciding What To Do



For operational systems, business rules are usually contained within application code, although they can also be in documentation or the knowledge of employees

Greater Decision Agility and Effectiveness

Key Technologies

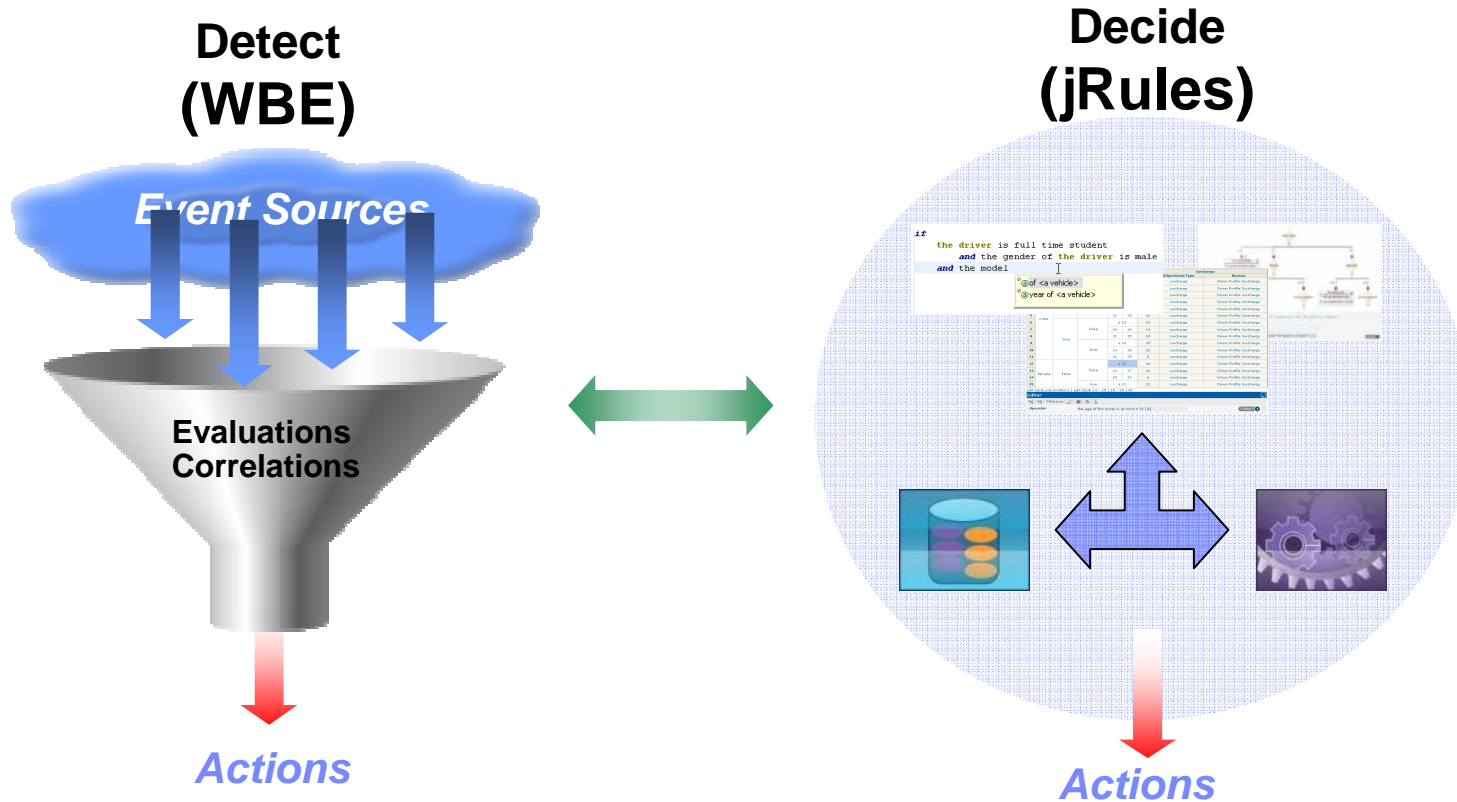


Qualifying Prospects for WebSphere Decision Server

1. How well can your systems track customer behavior across systems and channels? Are there opportunities you could exploit by being able to respond more quickly to insights on customer behavior?
2. Would you like to be able to increase personalization of pricing, promotions, product offers (etc.) through your business systems? How could this help you vs. your competitors? How could this help you with customer loyalty?
3. What are the current rates of automation for key decisions within your business processes? Are there repeatable, high-volume decisions that require a lot of manual intervention? What factors are limiting decision automation?
4. Can your business experts manage and govern automated decisions effectively without involving IT? What benefits would IT gain by being able to easily collaborate with line-of-business users in the implementation of decision logic that drives business systems behavior? What benefits would line-of-business functions gain?
5. Does your IT infrastructure enable you to implement event-driven applications that sense and respond real-time to actionable business situations and initiate actions based on knowledge-based rules?

WebSphere Decision Server

Greater Decision Agility and Effectiveness



▶ WBE - Detects when events or patterns of events occur to notify people or systems to take action

▶ jRules - Decides business outcome through execution of business rules against available data

Greater Decision Agility and Effectiveness

Business Event Processing

- Primarily implements a time-based pattern detection model – correlating events as data is in motion
- Main purpose is to determine what of interest is transpiring and coordinate one or more responses by other systems or generate alerts to people
- Correlating patterns of events coming from different sources is a key capability

Business Rules Management

- Primarily implements a decision model - given a snapshot view of data, determines best course of action at a specific point in a process or application
- Main purpose is to automate a decision based on a combination of factors (business policies, regs., best practices)
- Governing the evolution of decision logic used by operational systems is a high priority

Gartner characterizes BRMS and CEP systems as complementary notions. The combination being required to implement intelligent decision management programs.

[Gartner Research Report: Rule Engines and Event Processing, Mar 9 2009](#)

WebSphere Decision Server

Automate and Improve High-volume Operational Decisions

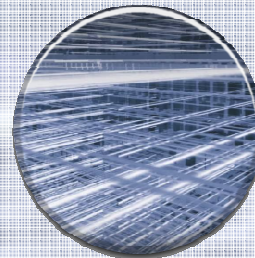
WebSphere Decision Server

- Detect critical events across the business network and automate precise, context-specific decisions
- **Major American Utility Company** delivers electricity to 2 million customers in a 5,000-square-mile area
- Smart Grid is a top priority:
 - **Business Events Processing** is used for detecting events and event patterns from Smart Meters as they occur
 - **Business Rules Management** will increase automation of follow-up decisions on Smart Meter alerts, based on the collective knowledge of the customers' subject matter experts
- Ability to respond to real-time data with intelligent, automated decisions focuses operations personnel on those situations where there is real value-add in having manual review of alerts



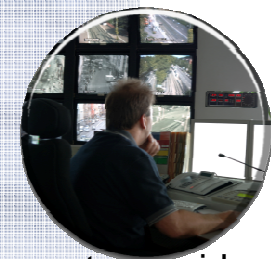
WebSphere Decision Server

Combined rules and events capabilities to power flexible decision management solutions



Can be used for fully automated interactions, or...

...for decision support in the back-office, or...



... to provide decision guidance for personal interactions with customers



Decision Agility and Effectiveness in Health Care



Business Challenge:

Large, regional Healthcare provider challenged to offer improved patient after-care to reduce readmissions, overall cost and risk for both provider and payer.



Solution: WebSphere Business Events and WebSphere ILOG JRules are being used for real-time assessment and decision-making for chronic disease management:

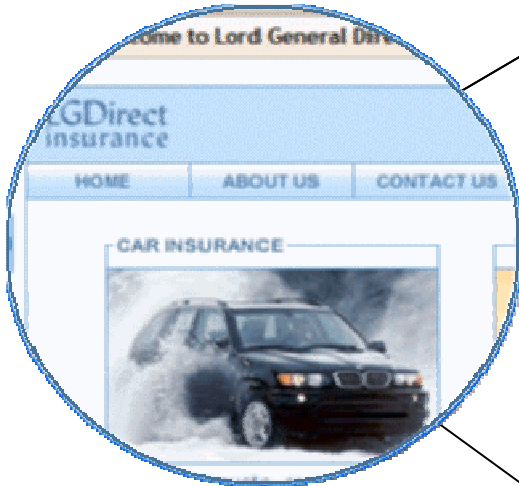
- capture care events and home health device metrics
- catch problems before they escalate into a dangerous and costly treatment situation
- when WBE detects and identifies defined patterns of interest, it initiates JRules to make patient-specific decisions, providing guidance to healthcare provider



- Goals:**
- ✓ Ability for clinicians to customize logic for individual patients
 - ✓ Improved patient care and loyalty to the provider
 - ✓ Reduced readmissions
 - ✓ Reduced cost to patient and provider
 - ✓ Mitigates risk for both the provider and payer

Decision Agility and Effectiveness

Insurance & Credit Card Services



Customer Acquisition (E.g. Car Insurance)

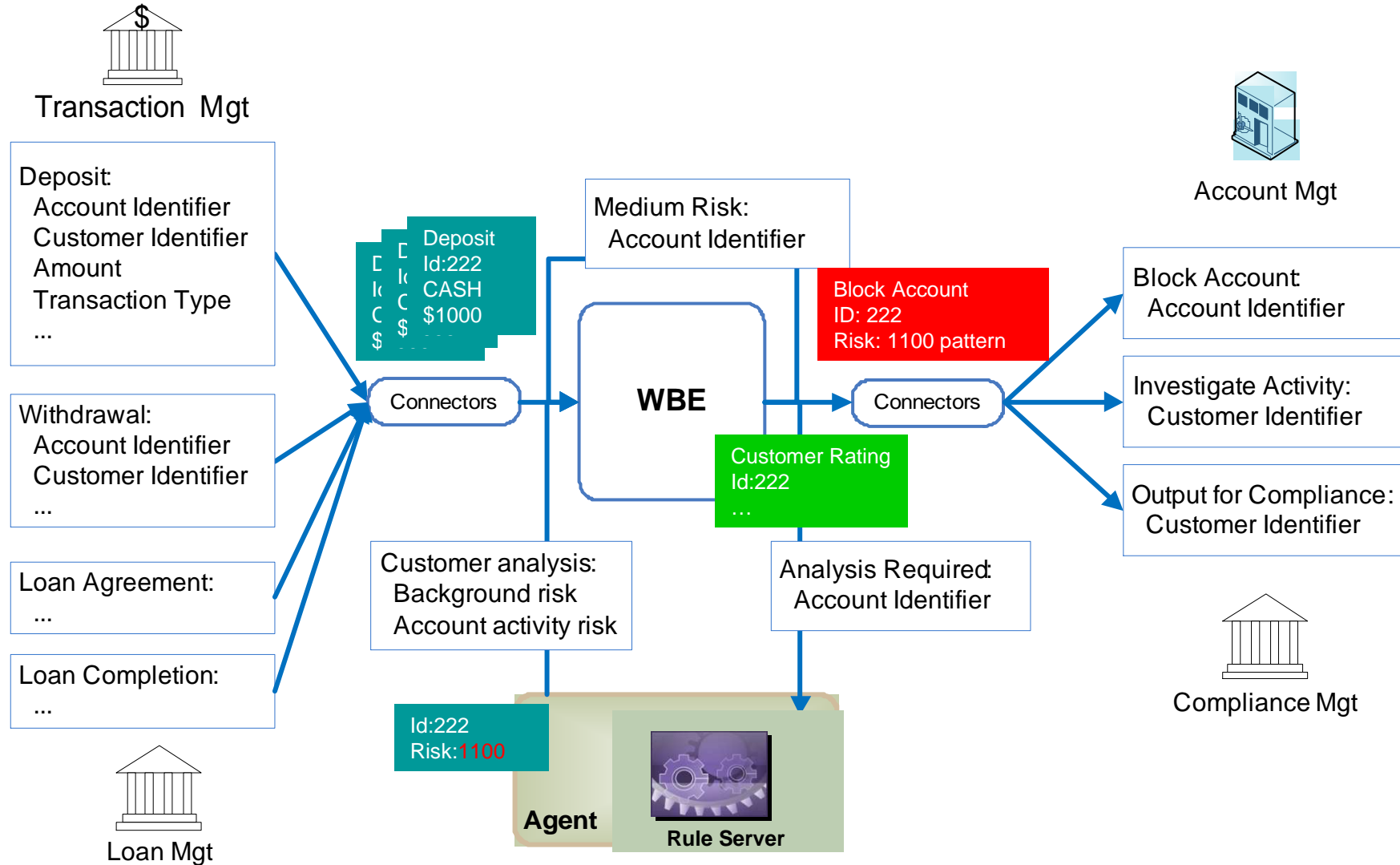
- WBE to monitor customer behavior and offer promotional discounts
 - Detect multiple requests for insurance quote over a short period of time
 - Detect quote requests that have not been accepted within a period of time
 - Trigger action to JRules to determine customer promotional offer
- JRules to determine whether to make an offer, and if so, for what
 - Tailor offer based on customer demographic and quote details
 - Provides ability to quickly introduce/remove offers as company risk profile changes



Value Add Personalized Service and Interaction (E.g. Credit Card Services)

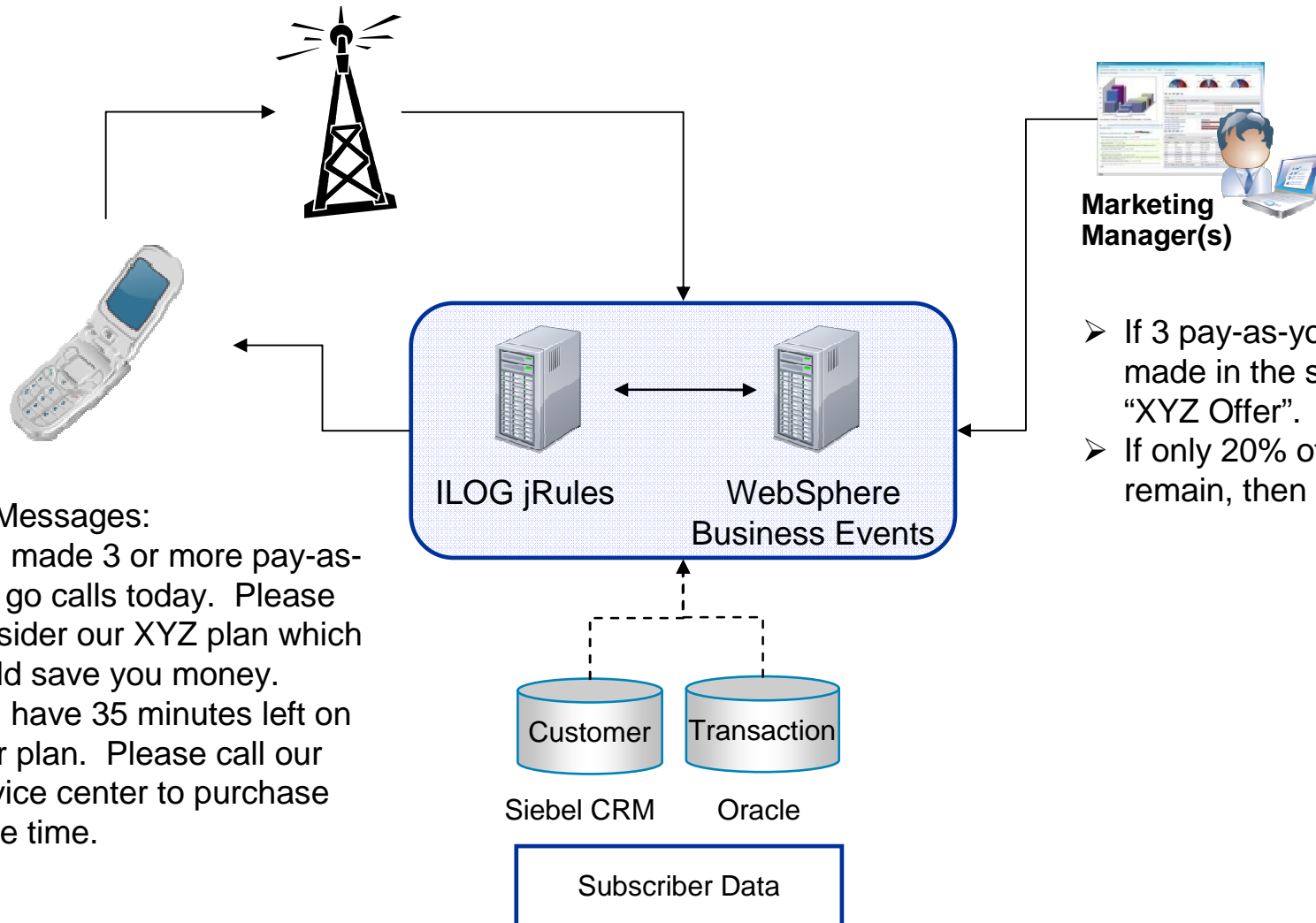
- WBE to monitor transaction behavior based on individual customer preferences
 - Detect patterns and subsequently notify cardholders about card activity behavior and thresholds (i.e. purchases exceed threshold over 24 hours)
 - Offers business users the flexibility to change rules and patterns definitions
 - Identify behavior patterns that meet promotional opportunity
- JRules to determine whether to offer a targeted offer, and if so, for what
 - Precise offer based on customer profile and behaviour

Decision Agility and Effectiveness in Banking



Decision Agility and Effectiveness

Just-in-time marketing to Telecom subscribers



SMS Messages:

- You made 3 or more pay-as-you-go calls today. Please consider our XYZ plan which could save you money.
- You have 35 minutes left on your plan. Please call our service center to purchase more time.

- If 3 pay-as-you-calls are made in the same day, then "XYZ Offer".
- If only 20% of minutes remain, then "Buy More".

WebSphere Decision Server

Greater Decision Agility and Effectiveness

- Improve responsiveness to critical business situations
- Determine the best response for a variety of operational decisions
- Rapidly implement changes to meet market needs and competitive threats
- Reuse decision logic across processes and systems
- Ensure compliance with business policies and external regulations



Learn more at:

<http://www-01.ibm.com/software/integration/business-rule-management/decision-server/>

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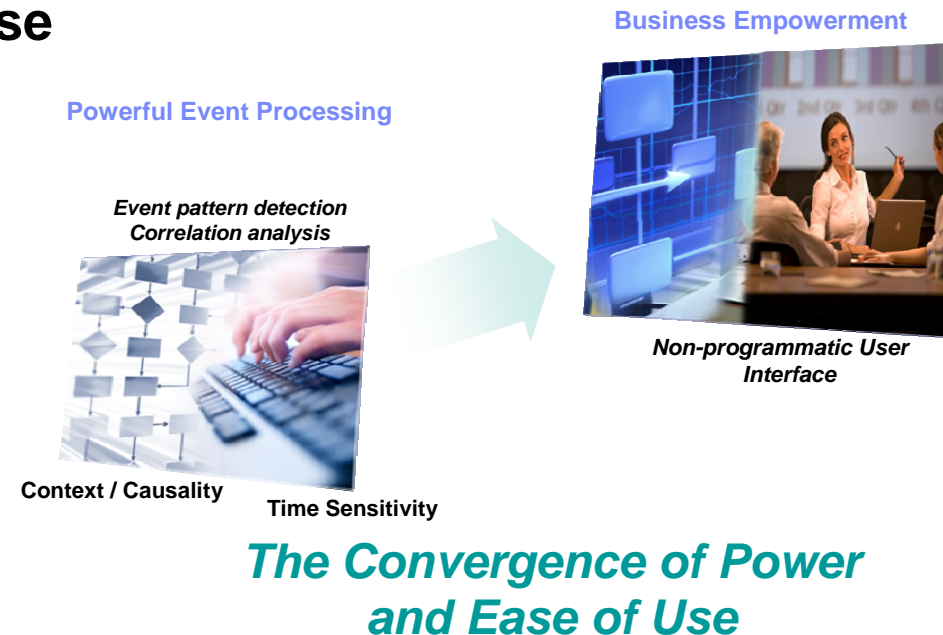


WebSphere Business Events

Putting the Power of Event Processing in the Hands of the Business

Situational Awareness and Response

- A powerful, scalable, flexible event processing platform
- Business user oriented interfaces reducing time to value.
- Built-in Connectivity to the widest range of events.
- Designed to expect change – supports incremental development and deployment

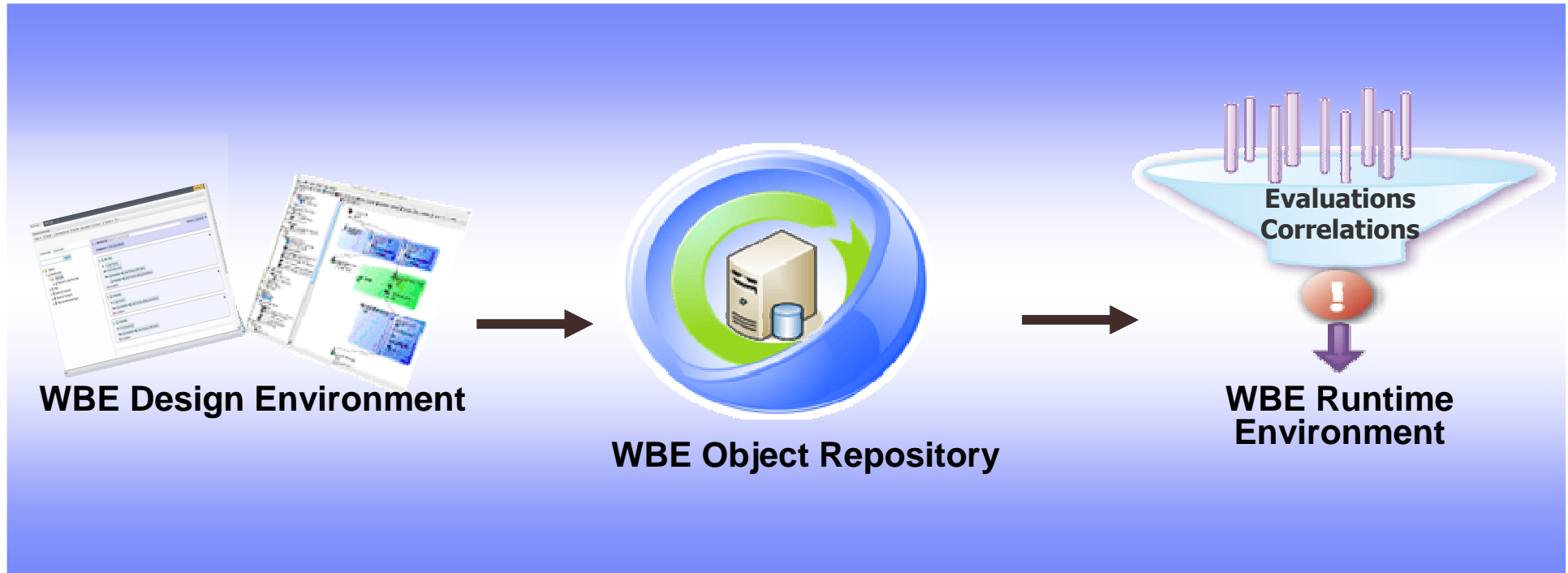


“The real world is mostly event driven, and event-driven situations are best addressed by event-driven business applications”.

Roy Schulte, VP Gartner Research

WebSphere Business Events

Putting the Power of Event Processing in the Hands of the Business



Seamlessly integrated solution for the design and execution of business event processes

Define WBE Interactions (Logic)

Empowers IT and Business Analyst to define the logic

Interaction III

Interaction Set: Respond To Large Price Related by: Customer.Id

In response to: Price Quote (Website)

Event



Conditions

After 3 days

If: Large Premium
and No Purchase Event

Actions

Then: Immediately Sales Followup (CRM System)
Immediately Send Promotion Mailing (Direct Mailing)
Else: no action

 IT Developer
  Business Analyst

- Drop-down, Point & Click Construction
- Business Vernacular
- Reusable Aids – Events, Filters, Actions

Filter UI

Filter: Large Premium

Customer.Customer Premium Is Greater Than 1000

Filter: No Purchase Event

(All Occurrences Of Purchase) Is 0

With Building Blocks Defined, Business Analyst Define the Logic

WebSphere Business Events

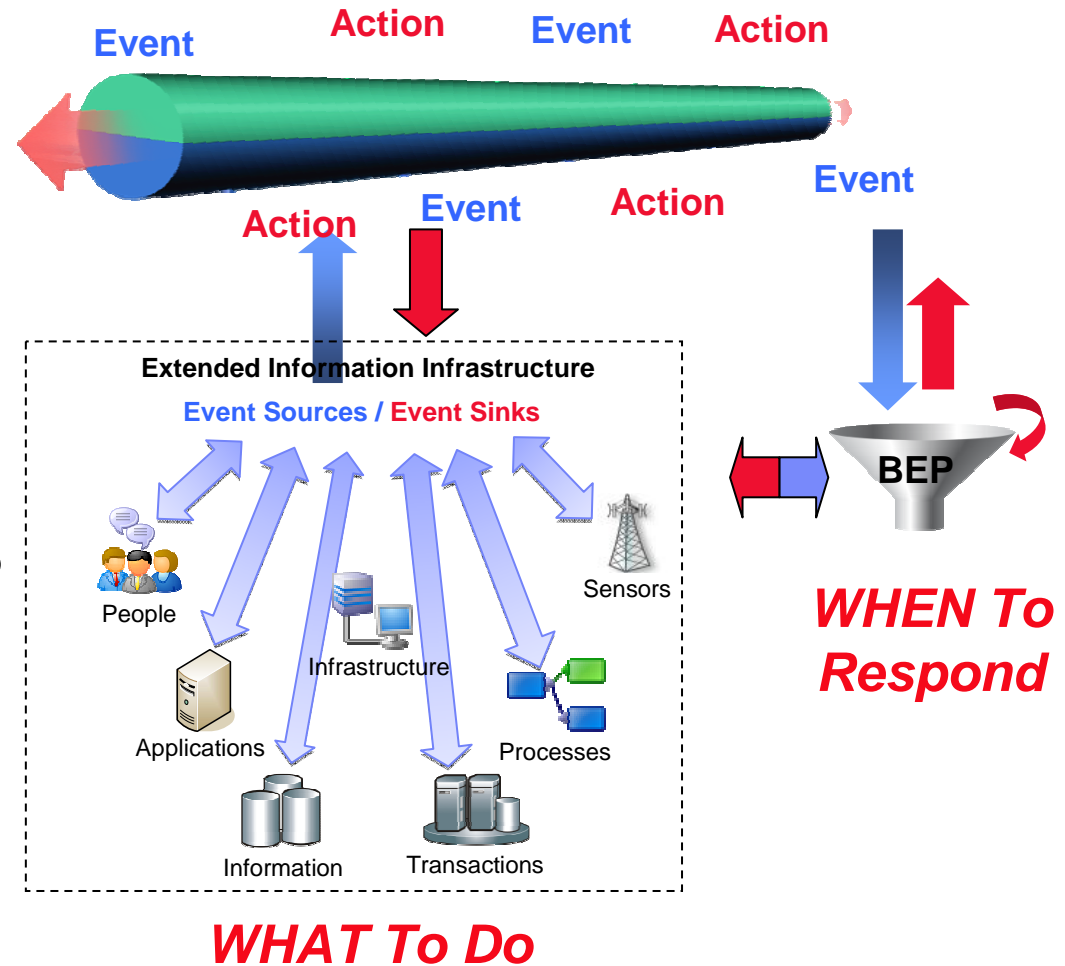
Leveraging the Infrastructure – Detect and React to Actionable Situations

Event Processing is About Determining “When” To Act

- WBE detects “when” an event or event pattern occurs (actionable situation) and generates one or more messages (actions) alerting the infrastructure

Knowing “When” Allows Coordination of “What” To Do

- When any application or process, operating in the IT infrastructure, receives an alert message (posted by WBE) indicating an actionable situation has occurred, it will determine “what” to do” I.e. do nothing, execute and when finished create a new event message or *not*

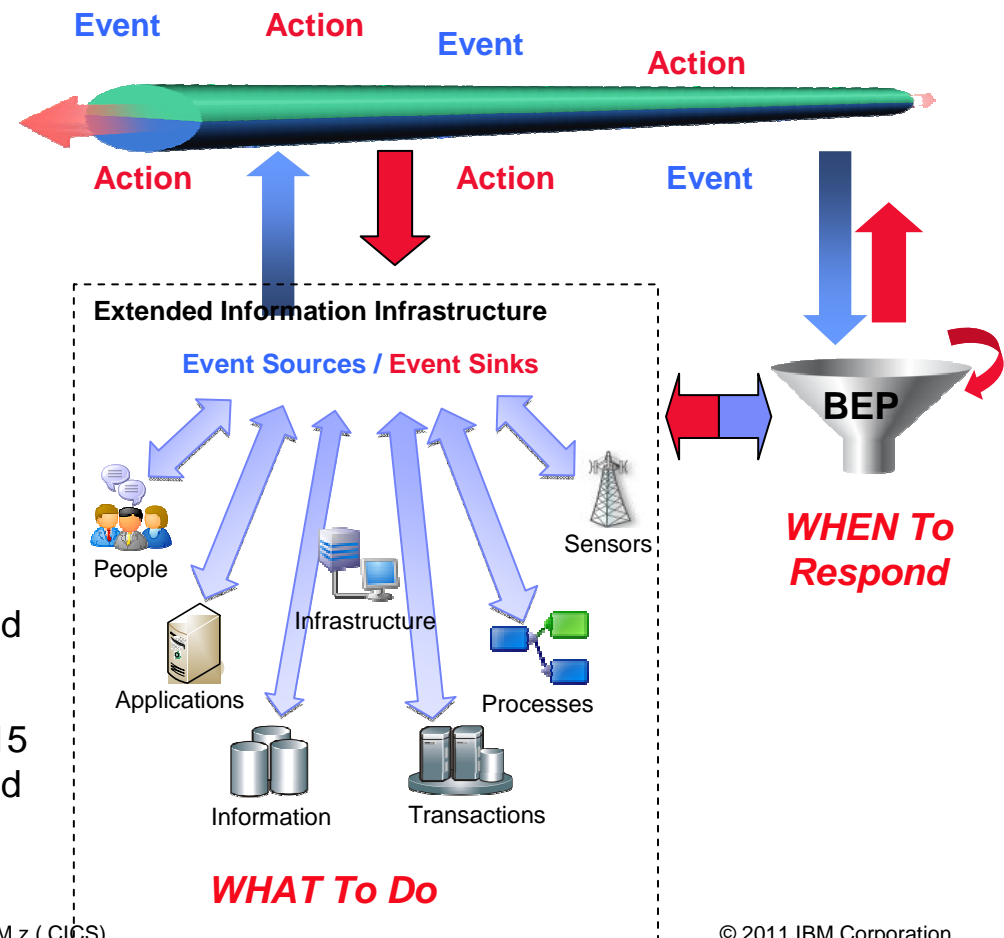


Business Event Processing

Detect Events and Complex Patterns, as they occur, and Responds



- If Event-A occurs then initiate Action-X
- If Event-A occurs and Data Field $\neq \langle \rangle$ (value) then initiate Action-X
- If Event-A occurs 3 times and Data Field $\neq \langle \rangle$ (value) then initiate Action-X
- If Event-A occurs and Event-B occurs and Data Field $\neq \langle \rangle$ (value) then initiate Action-X,Y
- If Event-A occurs and Event-B occurs and Event-C does *not* occur and Data Field $\neq \langle \rangle$ (value) then initiate Action-X,Y
- If Event-A occurs and Event-B occurs within 15 minutes and Event-C does *not* occur within 2 days and Data Field $\neq \langle \rangle$ (value) then initiate Action-X,Y,Z
- If Event-A occurs and Event-B occurs 2 times within 15 minutes and Event-C does *not* occur within 2 days and Data Field $\neq \langle \rangle$ (value) then initiate Action-X,Y,Z



Elevator Pitch

Today, decision agility requires situational awareness, the ability to sense and respond in a timely manner to actionable situations that represent opportunity or risk.

WebSphere Business Events® enables situational awareness. WBE manages the business events flowing across systems and people and detects and responds to actionable situations. It enables users to describe the events and patterns to detect and react to in business terms. WBE provides tooling to define, implement, and manage business event rules without programming. WBE is unique because in its ability to empower the business and rapidly deploy and respond to change.

For example, WBE could be used to identify an opportunity to up-sell to a customer and initiate follow-up activity:

When, in 72 hours, a customer researches a product at the Web site and calls the help desk for more information, but does not purchase

Then, initiate updating the customer/product activity in the CRM system and after five days, initiate sending a “thank you for your interest” e-mail from the Campaign Management system.

Employing WBE will:


- Provide more timely line-of-business insight and awareness to business situations
- Increase business agility to leverage opportunity and mitigate risk
- Enable business users to define and manage business events
- Reduce TCO for decision management


Qualifying Prospects for WBE


1. How often is your business negatively impacted by untimely response to actionable situations? Are you losing more than an acceptable amount of business to your Competitive Analysis? Is customer satisfaction being hurt? Is customer loyalty decreasing?
2. Are you able to respond quickly enough to the accelerating pace of change in today's business world? Does the business feel that IT takes too long to implement changes to adapt new patterns of activity?
3. Are you missing opportunities to leverage knowledge across disparate business processes or separate instances of the same process?
4. Are you happy with your ability to detect and act on business risks? Is your company looking to reduce the costs incurred from fraud, identity theft and other risks?
5. Are you seeking ways to market your products and services to your customers when they are most susceptible to your offering? Do you feel your leaving money on the table because your promotional offers aren't made at the right time?
6. Would your business benefit by detecting and responding to patterns of activity more consistently across the company? Are you confident that your best practices are being followed as defined in every situation?

BEP in Retail

Promote Customer Loyalty

 **Business Challenge:** Retailers wish to provide incentive for customers real-time while they are still in the store, to join customer loyalty programs or upgrade to a higher value programs, as well as reap the benefits of certain purchasing milestones.

 **Solution:** WBE can correlate a purchase as it is being made, to the customer's purchase total for the current year and loyalty status and determine loyalty program eligibility based on the purchase total plus the purchase in-progress and notify the cashier or the store manager If the customer is not participating in that loyalty program to approach the customer before he or she leaves the store. Additionally, WBE could correlate external factors like weather forecasts or time of year (holiday, new season) with the given loyalty purchase to help more specifically tailor the reward, e.g., if the customer hits a given plateau on during a cold spell, deliver a cappuccino coupon in real-time vs. a frappuccino during more balmy weather.

 **Results:**

- ✓ Greater participation in loyalty programs that foster repeat customer visits
- ✓ Greater customer satisfaction
- ✓ Positive word of mouth/viral publicity for the company

BEP in Manufacturing

Order Management across Multiple ERP Systems

Business Challenge: Manufacturing and retail companies are frequently challenged by maintaining multiple ERP systems based on legacy operational practices. Incoming orders are split and distributed to the appropriate systems, but if there is a problem with delivery of one part, or a request for a delivery change, coordinating a response is difficult.

Solution: WBE can detect events that occur across multiple ERP and enterprise systems that represent critical supply chain situations that will result in customer impacting delays or practices such as splitting order fulfillment into multiple shipments and initiate a series of automatic responses to properly fulfill complex orders or compensate for delays or challenges in specific parts of the order fulfillment process.

Results:

- ✓ Improved operational efficiency
- ✓ Coordination across disparate processes
- ✓ Improved customer responsiveness and satisfaction

BEP in Government Smarter Infrastructure



Business Challenge:

Governments are challenged with limited resources, technologies and personnel for evaluating and detecting deteriorating conditions across the physical infrastructure – roads, bridges and buildings



Solution: WBE is being used to monitor and correlate events from sensors attached to bridges. These event patterns can be used to measure traffic and the condition of the structure under stress used to recommend more timely and cost effective inspections.



Results:

- ✓ Determination and notification of preventive maintenance
- ✓ Alert to critical public safety conditions
- ✓ Determination and alert to compliance with regulations

WebSphere Business Events

Real Time Situational Awareness and Response

Why WebSphere Business Events:

- Mature Product Offering
- Synergy with WebSphere Portfolio
- Unequaled Business User Empowerment
- Superior Event Processing Functionality
- Broadest Access to Event Sources
- Unparalleled Scalability Up and Out
- Unsurpassed Global Support



Unlock the value of events by enabling the business user to define actionable business situations and responses

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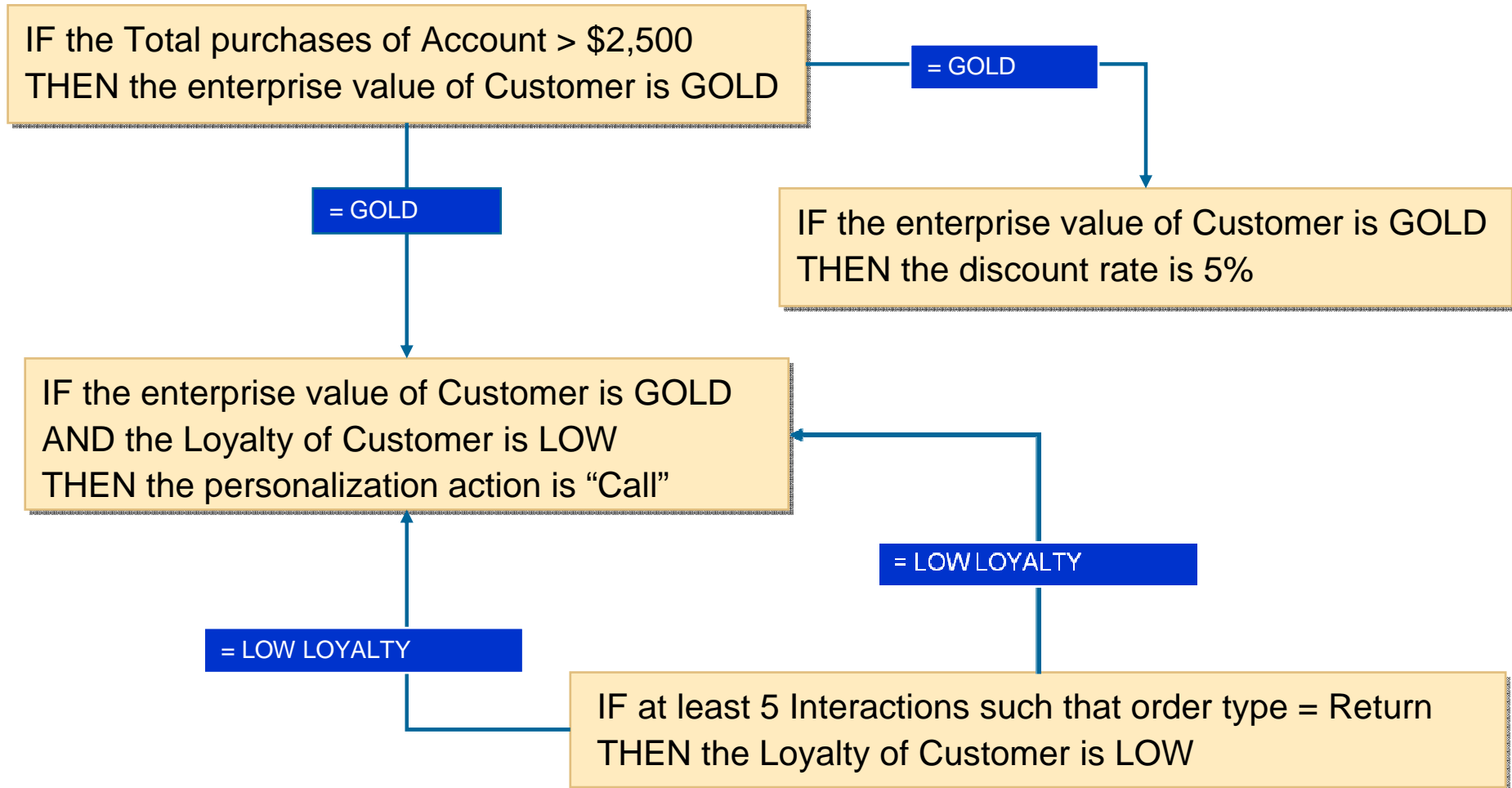


Business Decisions are Everywhere...



And Changing Frequently

What is a business decision?



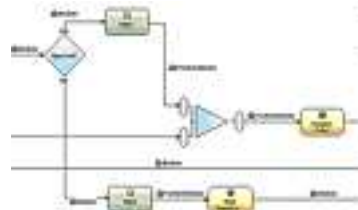
The traditional (ad hoc) approach of dealing with rule changes leads to...

- 💣 Reduced organizational agility
- 💣 Reduced employee productivity
- 💣 Increased load on IT

Where Business Rules Typically Exist



People



Processes

```

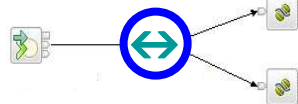
#IfDef __WIN__
/*
 * Before performing any socket operation (like retrieving hostname
 * to test_connect_variables we have to call WSASStartup
 */
WSADATA WsaData;
if (SOCKET_ERROR == WSASStartup (0x0101, &WsaData))
/* errors are not read yet, so we use english text here */
my_message(ER_WSA_FAILED, "WSAStartup Failed", MYF(0));
unireg_abort();
#endif /* __WIN__ */

if (!init_common_variables(OMSSL_CONFIG_NAME,
    argv, load_default_groups))
unireg_abort();
init_stmatics();
if (!log_specialflag & SPECIAL_NO_PRIOR)
my_thread_setprio(pthread_self(), CONNECT_PRIOR);
    
```

Applications



Documents



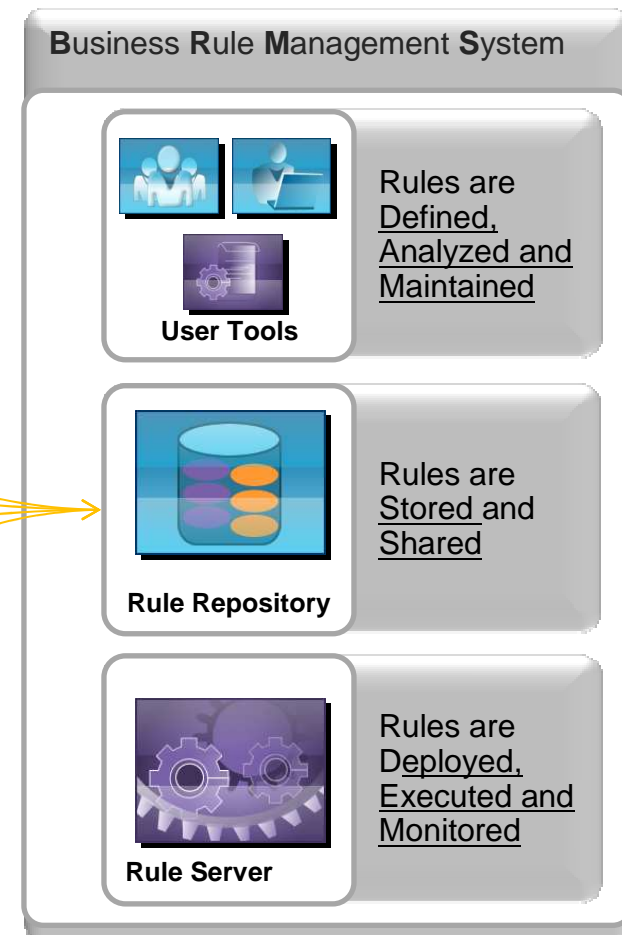
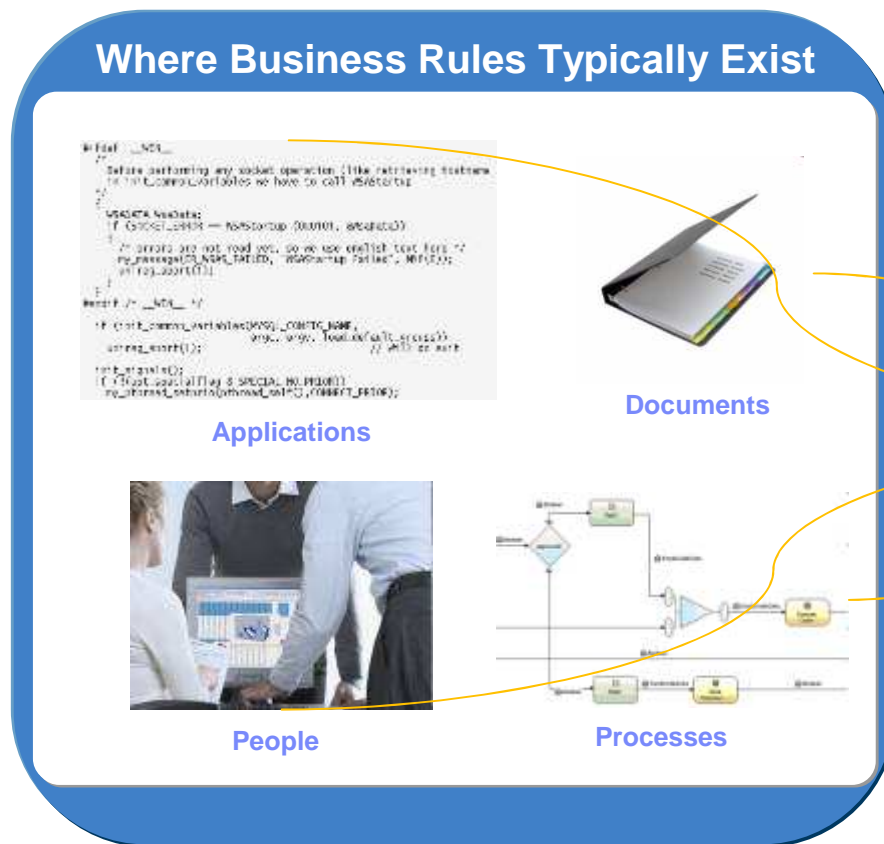
Message Flows

Issues

- Rules are hidden in code or isolated within the organization
 - Changes are hard to track and maintain over time
- Rules used by systems have to be programmed and require IT resources
- Duplication and multiple versions of the same rules
 - Lack of auditability, traceability
- Decision changes cannot be easily tested or simulated

The Smarter Approach – Easy, Safe, Reliable Change with BRMS

- Eliminate decision silos
- Make decision logic accessible to Business and IT
- Allow business users to manage rules
- Implement fine-grained, context-specific decision automation
- Reduce maintenance time/cost



Requirement: separate Application Development and Rule Lifecycles

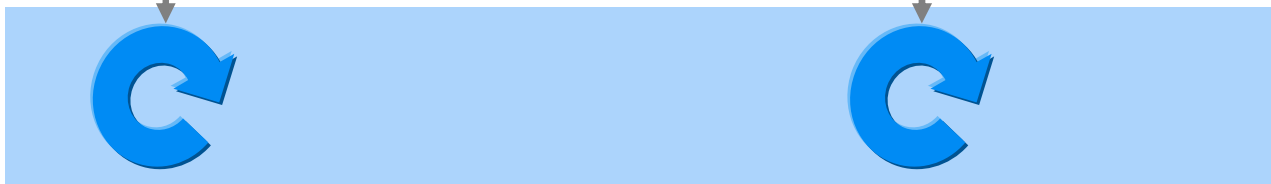
Application changes in Weeks / Months



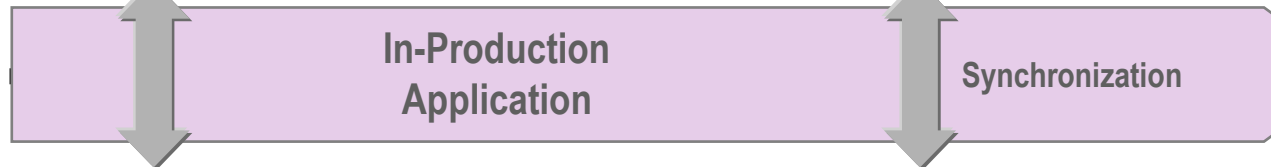
Application Developer

Functional Requirements

Functional Enhancements / Platform Upgrades



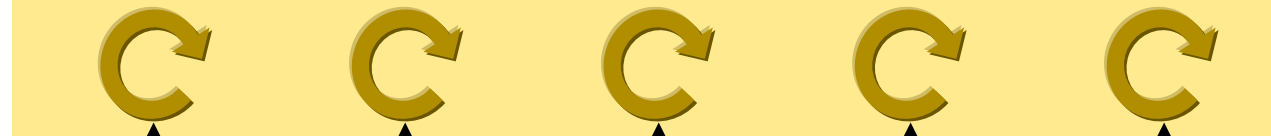
Application Development



In-Production Application

Synchronization

Business Rule Management



Business & IT

Business policies

Business policy and rule changes

Business policy and rule changes

Business policy and rule changes

Business policy and rule changes

Decision / Policy Changes in Days / Weeks

Value of BRMS



▪ Improved agility

- Business Decisions and Rules can be more easily accessed and changed
- Business Decisions and Rules can be reused across applications



▪ Improved time to market

- Line of Business Managers can manage and change rules
- Quick response to market and regulatory changes



▪ Management of rule based decisions

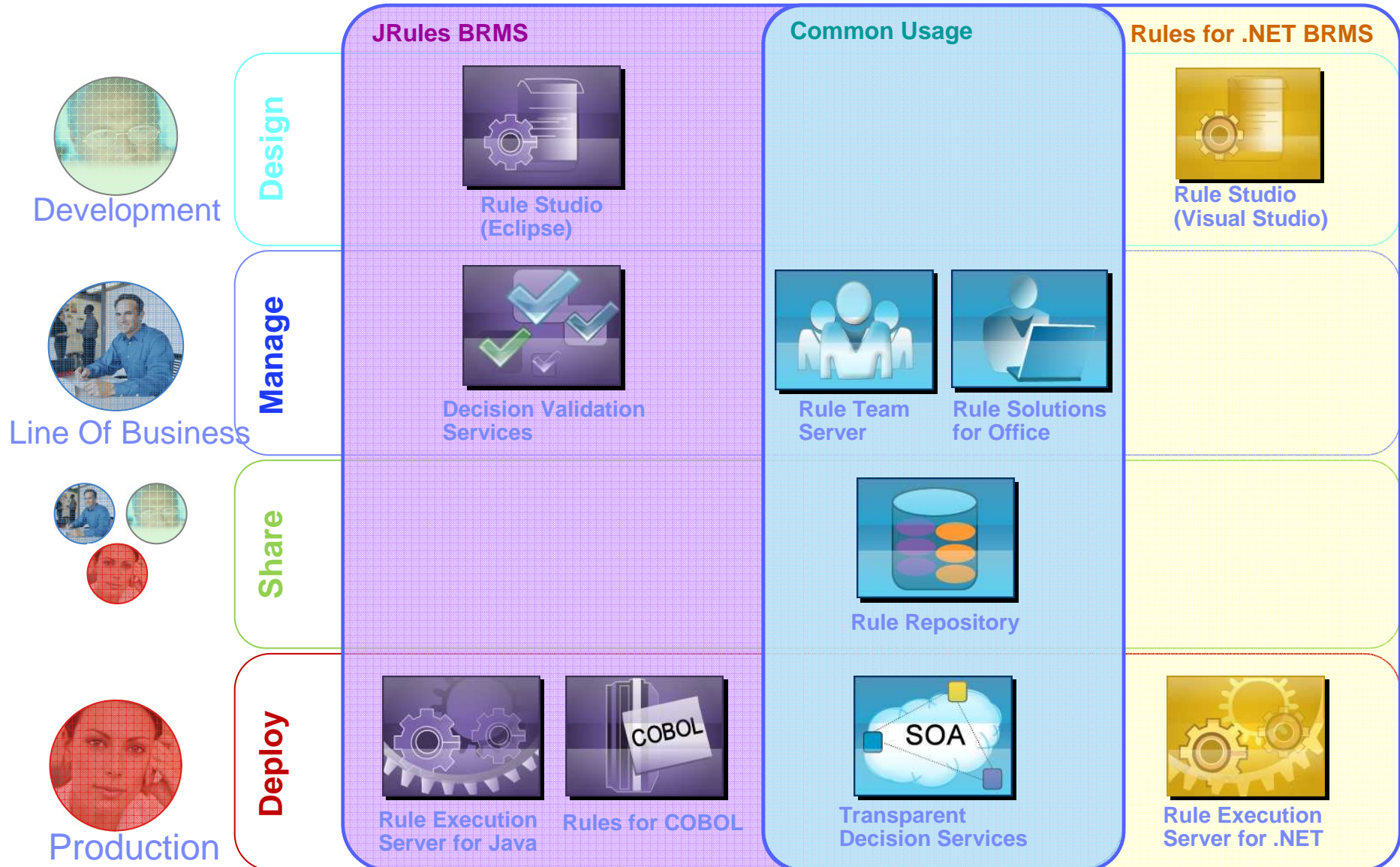
- Improved regulatory compliance
- Consistency in applying business decisions across applications



▪ Incremental application modernization

- Incrementally modernize business applications by managing business logic independently of technical services

IBM WebSphere ILOG Business Rules Product Family



COBOL Applications

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IDENTIFICATION DIVISION.
PROGRAM-ID. BLANK-SCREEN.
ENVIRONMENT DIVISION.
CONFIGURATION SECTION.
SOURCE-COMPUTER. INTEL.
OBJECT-COMPUTER. INTEL.
DATA DIVISION.
WORKING-STORAGE SECTION.
77 FURNITURE PIC 9(7) VALUE ZEROES.
77 BUILDING PIC 9(7) VALUE ZEROES.
77 DEBTORS PIC 9(7) VALUE ZEROES.

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IDENTIFICATION DIVISION.
PROGRAM-ID. BLANK-SCREEN.
ENVIRONMENT DIVISION.
CONFIGURATION SECTION.
SOURCE-COMPUTER. INTEL.
OBJECT-COMPUTER. INTEL.
DATA DIVISION.
WORKING-STORAGE SECTION.
77 MACHINERY PIC 9(7) VALUE ZEROES.
77 CASH-PETTY PIC 9(7) VALUE ZEROES.

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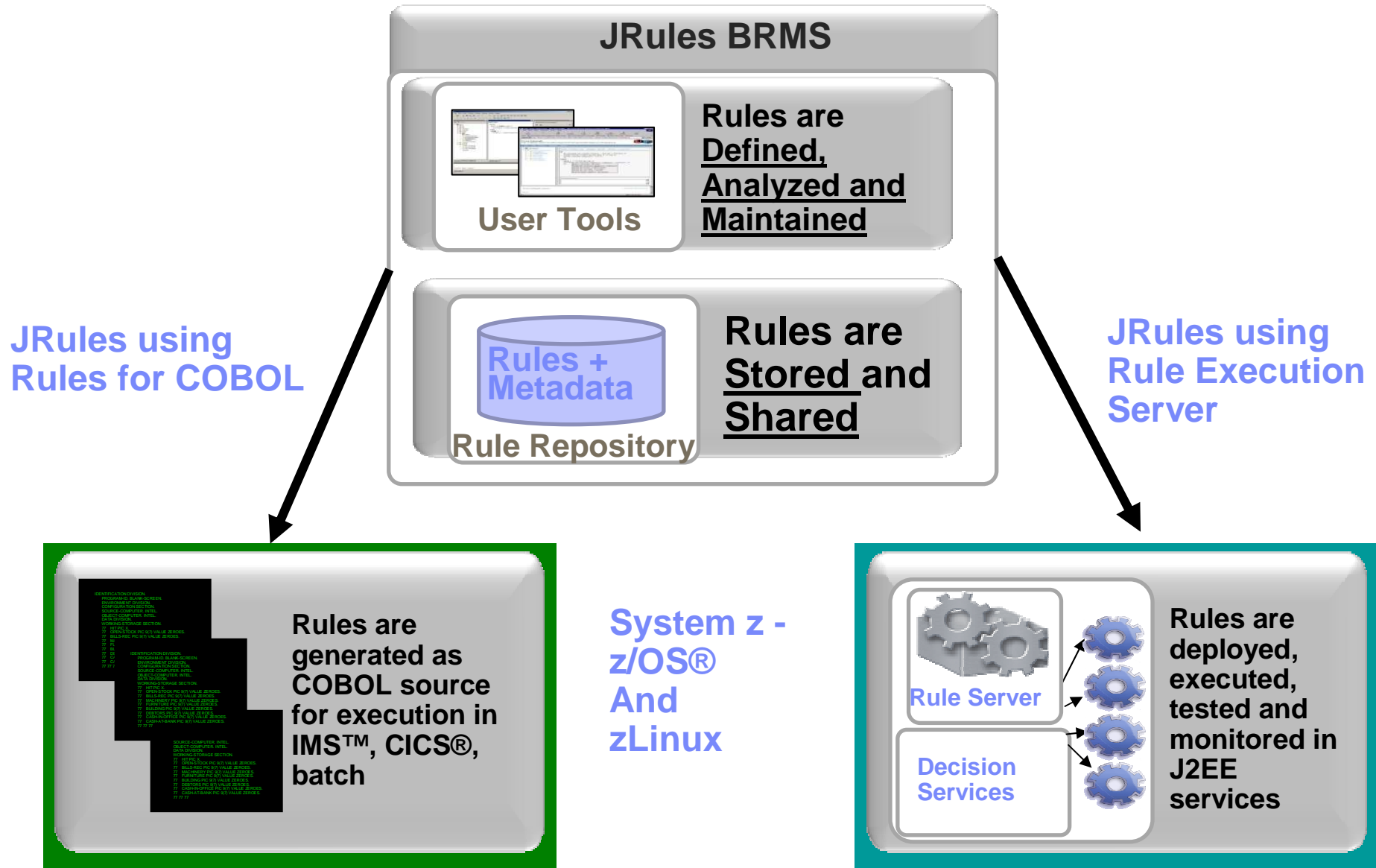
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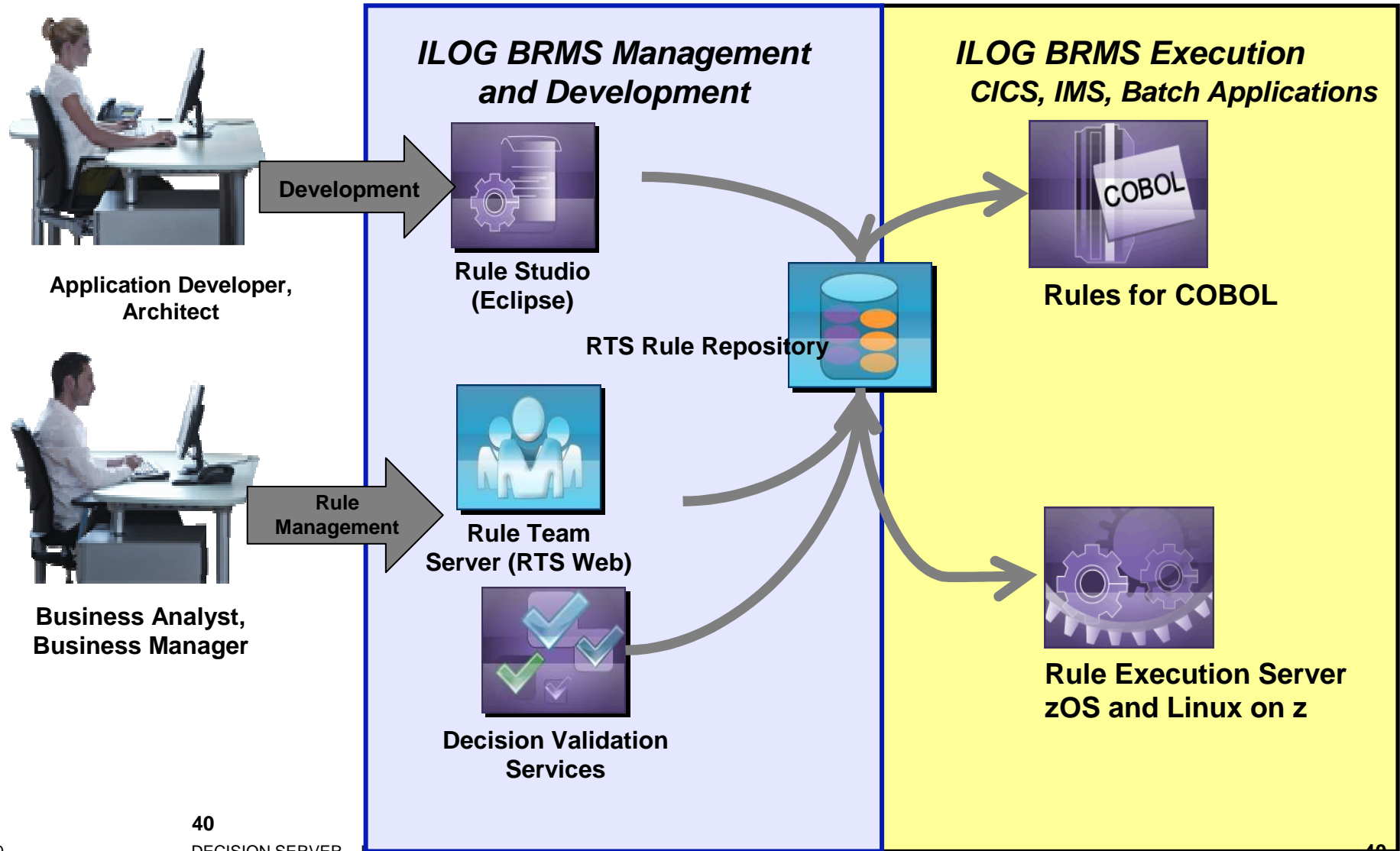
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- Without a BRMS, these coded rules are:
 - Hidden in COBOL code, databases, etc
 - Potentially undocumented
 - Accessible only by IT people
 - Subject to same life cycle as the code

ILOG BRMS System z Options

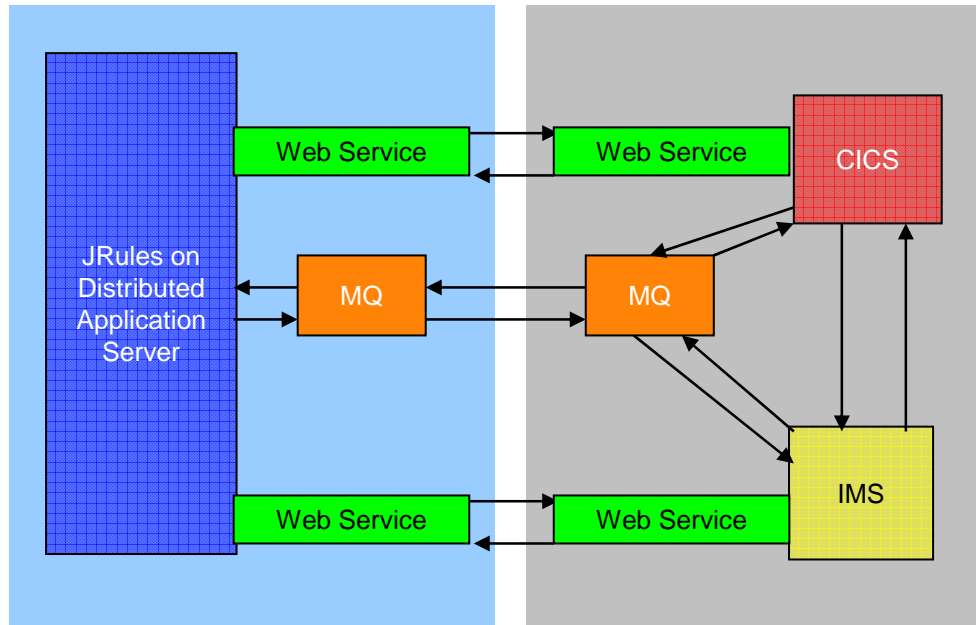


ILOG Business Rule Management Solutions for COBOL Applications on System z



z/OS JRules options

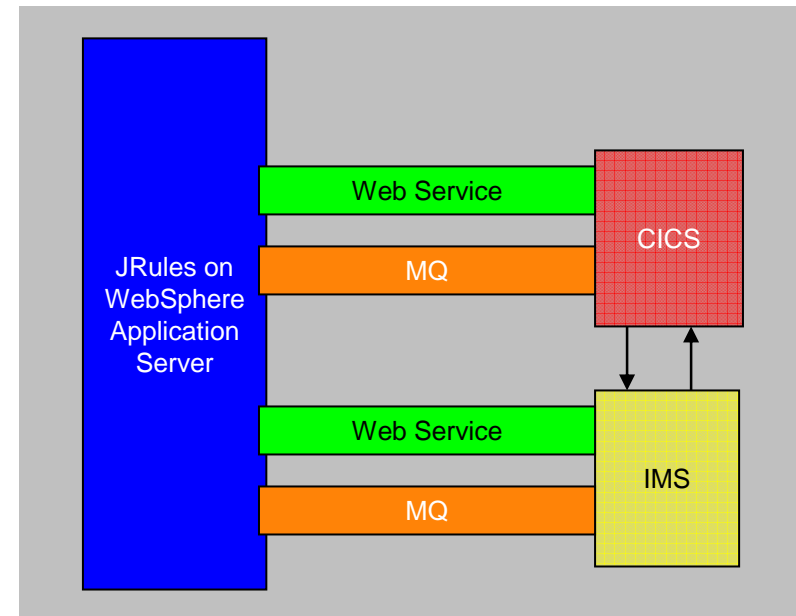
Multi-tier



Linux, Unix, Windows

z/OS

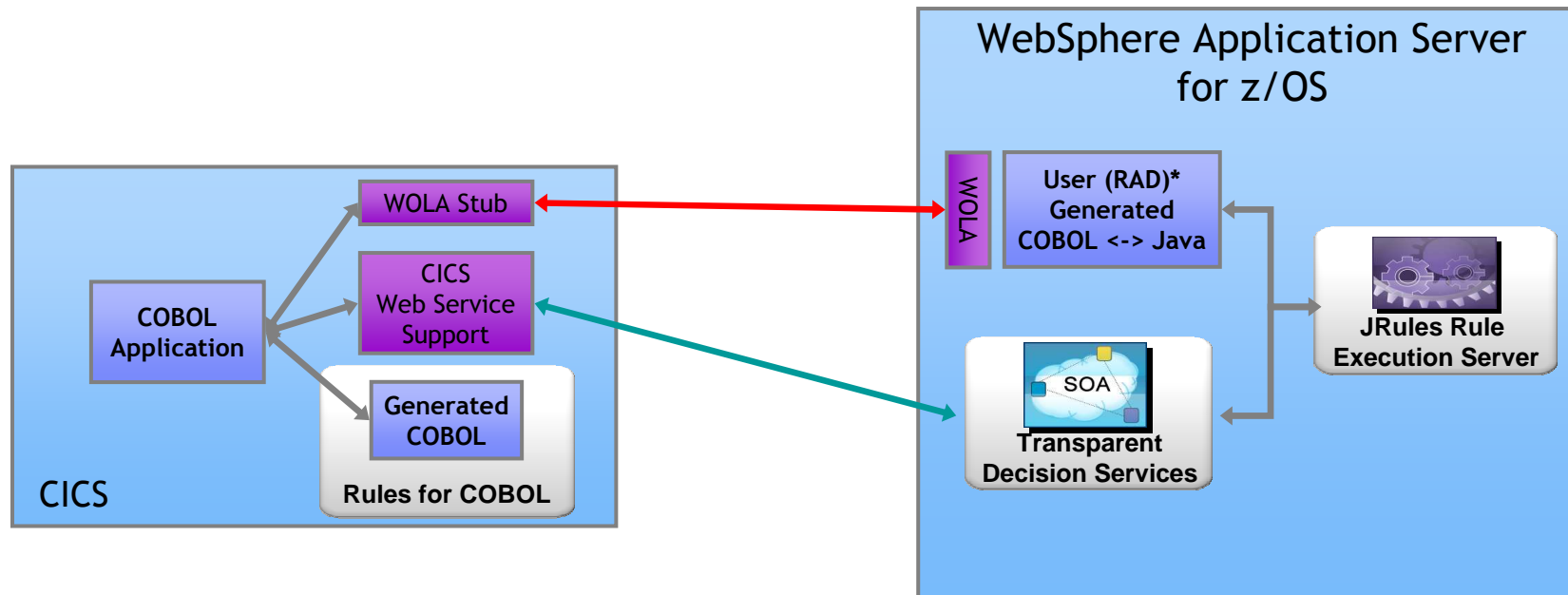
Single Tier



z/OS

Moving from multiple physical tiers to a single tier provides additional benefits, including tighter security, enhanced management, reduced costs, simplified configurations and performance gains.

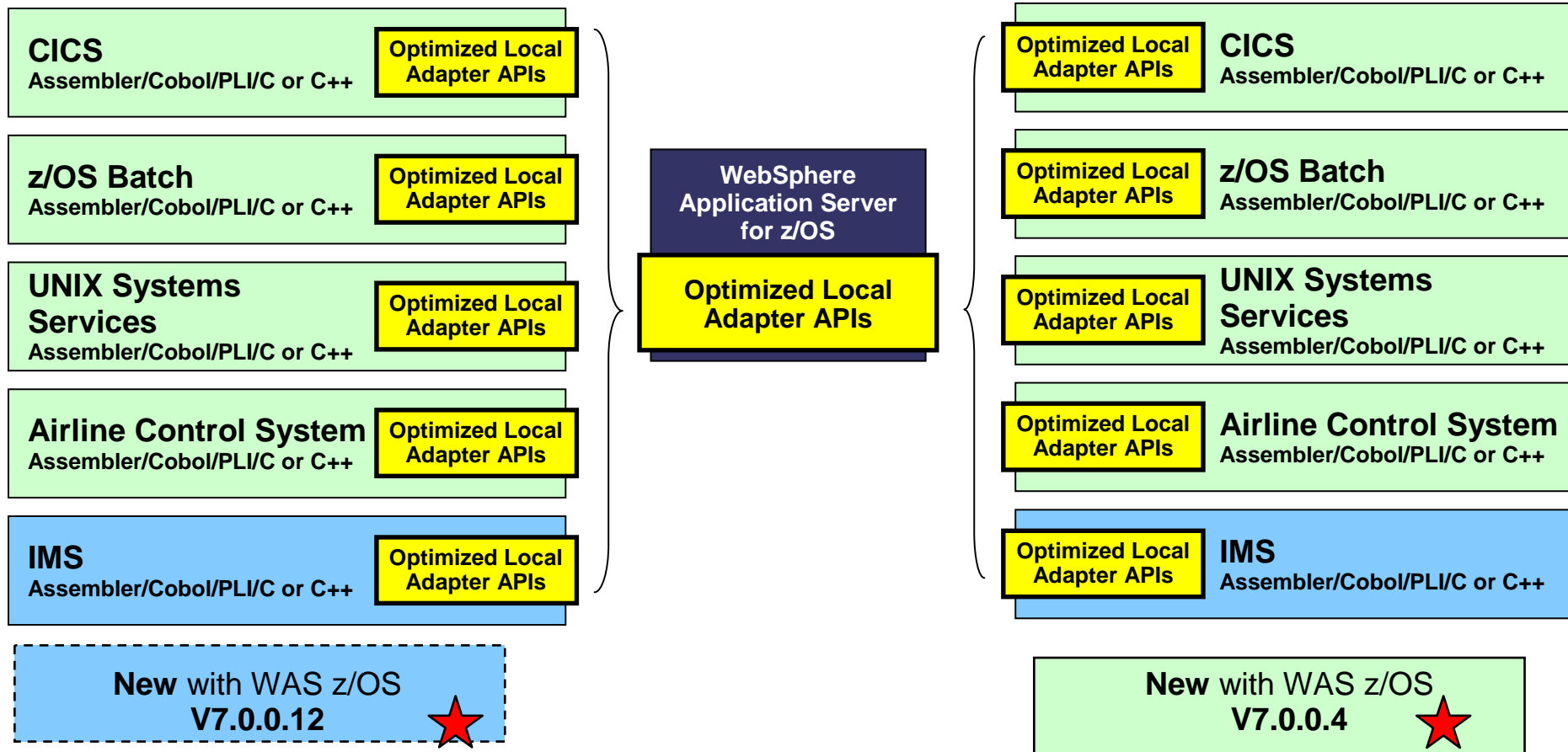
Choices of Tightly Coupled or Loosely coupled solutions



* Rational Application Developer provides tooling to map COBOL data structures to Java

Cross-Memory: New Optimized Local Adapters (WOLA)

The new WOLA Adapters allow a bi-directional Cross-Memory communication between WAS and CICS, z/OS Batch and USS.



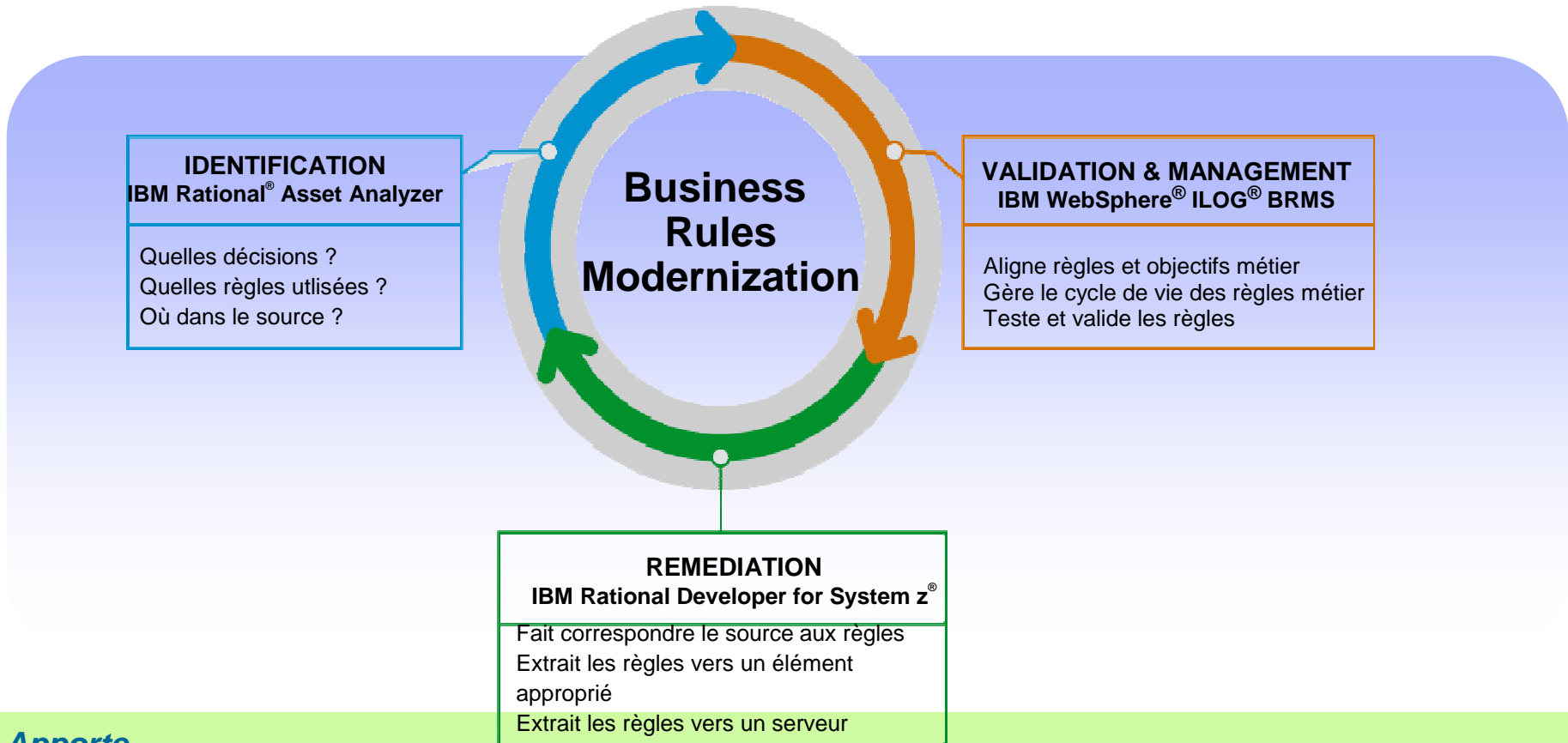
Benefits:

- Based on Local Comm cross-memory access (z/OS exclusive)
- Bi-directional ... WAS outbound or inbound to WAS (WOLA exclusive)
- CICS Security and Transaction propagation
- Very, very fast. 2x – 6x faster than other local solutions
- Allows all the z/OS players to call one another like peers – leverage all of your assets



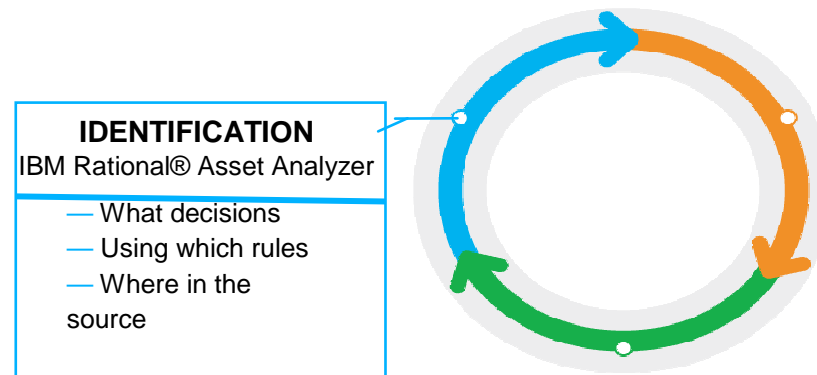
New!

**Rational Asset Analyzer v6.0
maintenant intégré avec WebSphere ILOG**



Apporte...

- ✓ L'extraction des règles métier depuis des assets existants
- ✓ Gestion, validation et teste des règles métier depuis un point central
- ✓ Maintenance et modernisation des règles métiers pour réutilisation



- **Scope the effort**
 - Defined Business Goal; with process model with specific set of business decisions
 - Deliver incremental value: Keep a manageable size with timely deliverables
- **Establish the vocabulary**
 - Import Business Terms from ILOG BRMS or define them with RAA dialogs
 - Map Business Terms to developer “terms”, code variables and data elements
- **Define the candidate business rules**
 - RAA will identify source statements that “act” on the business terms through their associated data elements
 - Form unstructured candidate rules based on the identified source statements
 - Create structured candidate business rules using ILOG Editor within RAA
- **Export Rules to ILOG**

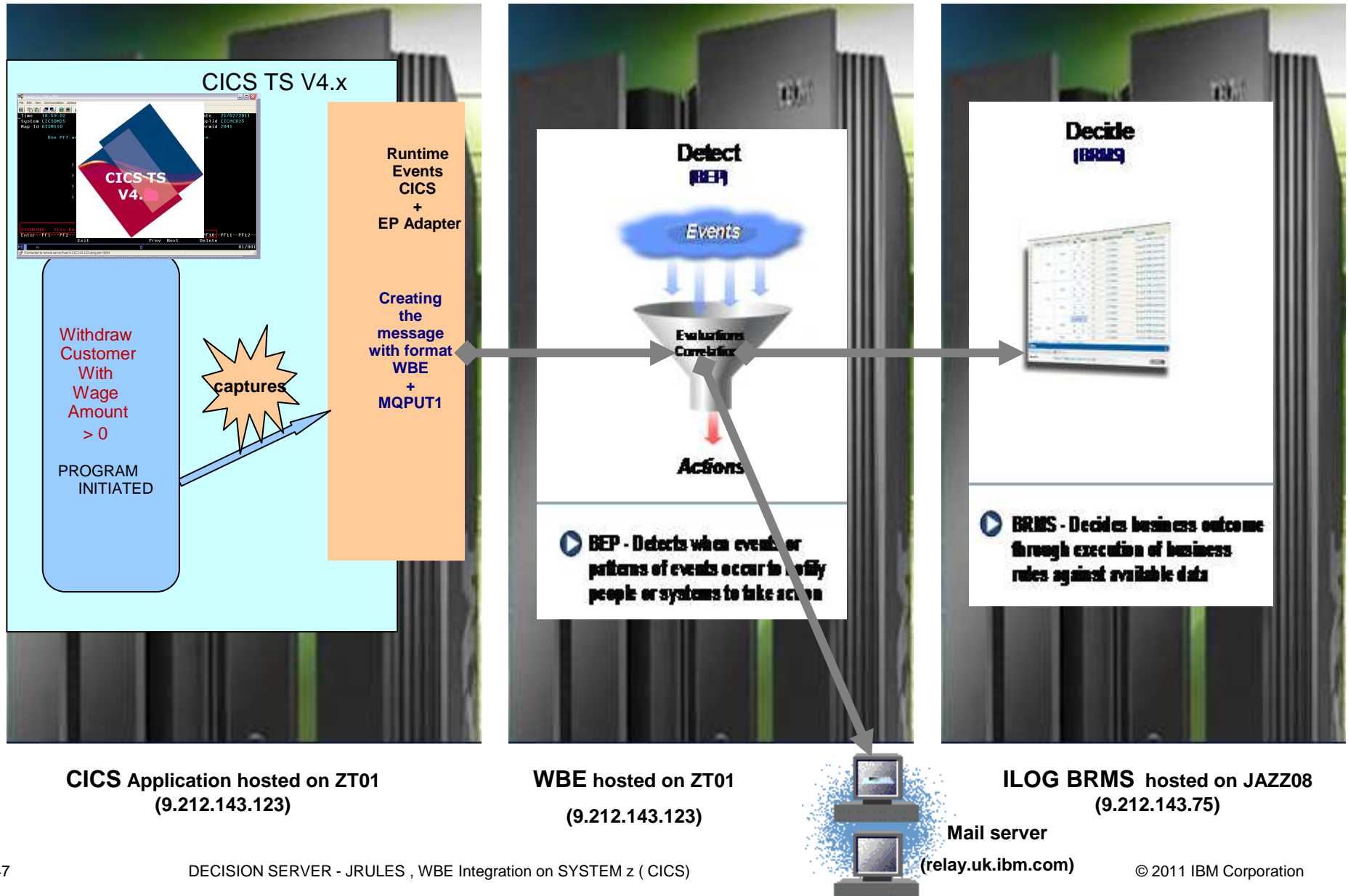
Solution Overview

- 1** *Decision Server Concepts*
- 2** *Business Events*
- 3** *Business Rules*

Solution and Demonstration

- 4** *CICS Business Events*
- 5** *Business Event Processing*
- 6** *Business Rules Processing*





```
Time 15:28:18      VSAM Scroll Display Screen.      Date 11/03/2011
System CICSDM25    Applid CICACB25
Map Id OISM110     Termid Z042

Use PF7 and PF8 to move Up and Down and PF10 to Delete.

> Record Number      32
> Person Name        DEMO-AVARD-ASHAN-PAUL-YAO
> Description         TEST
> Yearly Wage $      50,000.00

OISA1010 - This Record Has Now Been Deleted.
Enter--PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
Exit                               Prev Next      Delete
```


Decision Rule

1. Calculate customer level
2. Calculate interest premium
3. calculate interest rate

1 - Calculate customer level

The customer level is identified based on the average balance, or wage amount maintained in the bank or the number of years of relationship with the bank

Customer since (in years)	Average balance or Wage amount (in \$, €, £)	Customer Level
> 10	> 100k	P (Platinum)
> 5 <10	> 50k <100k	G (Gold)
> 3 <5	> 30k < 50k	S (Silver)
Other	Other	R (Regular)

2- Calculate interest premium

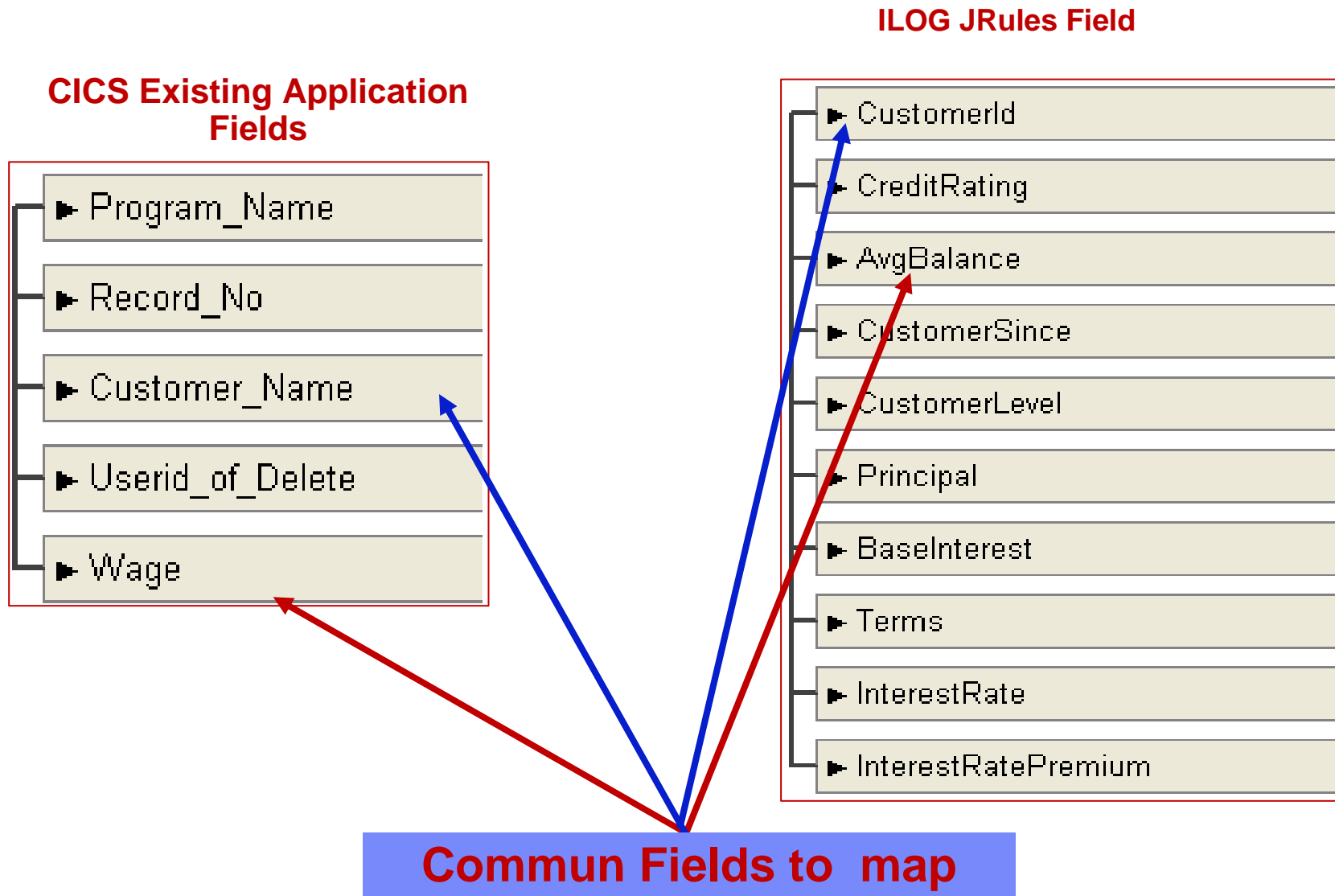
Depending on the customer level, the interest premium is defined,

Customer Level	Interest Premium (in %)
P	0
G	0.25
S	0.5
R	0.75

3 - Calculate interest rate

Depending on the customer credit rating, loan amount and duration of loan, the interest rate is added to the base interest

Credit Rating	Principle (in \$, €,£)	Terms (in years)	Add interest rate (in %)
> 540 < 700	< 430 k	15	1.90
		20	2.00
		30	2.50
	> 430	15	1.95
		20	2.05
		30	3.00
> 700 < 830	< 430	15	1.00
		20	1.5
		30	1.8
	> 430	15	1.25
		20	1.75
		30	1.85



The screenshot shows the IBM Software IDE interface for configuring an event binding. The main window is titled "Event Binding" and is associated with the file "DemoCICSEP.evbind".

Project Explorer: Shows a project named "CICSEP" containing "DemoCICSEP.evbind", "META-INF", "cics.xml", and "Interdependency Analyzer Queries".

Event Binding Configuration:

- General Information:** Description: "Event Produce from CICS When a delete happen using a program OISDDM25".
- Event Specifications:** Contains one specification: "CICSPGM_OISDDM". Buttons for "Add...", "Edit Details...", and "Remove..." are visible.

Resource: A button labeled "Resource" is highlighted with a red box in the top right corner of the main window.

Navigation: At the bottom of the main window, there are tabs for "Event Binding", "Specification", and "Adapter". The "Event Binding" tab is currently selected and highlighted with a red box.

Problems: A "Problems" window at the bottom shows "0 items".

Description	Resource	Path	Location	Type

Specifications

- CICSPGM_OISDDM
 - Delete_Capture

General
Identify and describe the event.

Name: CICSPGM_OISDDM [Edit...]

Description: [Text Area]

Emitted Business Information
Describe and order the business information to be emitted by the event.

Name	Type	Length	Precision	Description
Program_Name	Text	8	0	
Record_Number	Numeric	0	0	
Customer_Name	Text	26	0	
Deleting_UserId	Text	8	0	
Wage	Numeric	0	2	

[Add...]
[Edit...]
[Remove...]
[Move Up]
[Move Down]

Capture Specifications
Add Capture Specifications to this event.

[Add a Capture Specification...]

Automatic Capture Specification
Use this to automatically generate a capture specification for a signal event call using the business information entered above.

[Add an Automatic Capture Specification...]

Event Binding: Specification Adapter

Problems: 0 items

The screenshot shows the 'Specifications' window in the IBM Decision Server interface. The window title is 'DemoCICSEP.evbind'. The left pane shows a tree view with 'CICSPGM_OISDDM' expanded, and 'Delete_Capture' selected. The main pane has tabs for 'Capture Point', 'Filtering', and 'Information Sources'. The 'Capture Point' tab is active, showing a 'General' section with 'Name: Delete_Capture' and an empty 'Description' field. Below this is a 'Remove Capture Specification...' button. The 'Capture Point' section has a dropdown menu open, showing a list of capture point options: READ, READNEXT, READPREV, READQ TD, READQ TS, RECEIVE MAP, RECEIVE, RETRIEVE, RETURN, REWRITE, SEND MAP, SEND TEXT, SEND, SIGNAL EVENT, START, WEB READ, WEB READNEXT, WRITE FILE, WRITEQ TD, and WRITEQ TS. The 'Capture Point' dropdown is highlighted with a red box. At the bottom of the window, there are tabs for 'Event Binding', 'Specification', and 'Adapter', with 'Specification' selected.

DemoCICSEP.evbind

Specifications

- CICSPGM OISDDM
 - Delete_Capture

Capture Point **Filtering** Information Sources

Application Context
Define predicates to filter events.

Context	Operator	Value
Transaction ID	Equals	DT01
Current Program	Equals	OISA1010
User ID	All	
Response Code	Equals	Ok

Application Command Options
Define predicates for command options. Predicates marked with * should be specified to maintain CICS performance.

Name	Operator	Value
FILE*	Equals	OISDDM25
UPDATE	Exists	

Application Data
Define predicates for application data. Import a language structure and pick an item to specify the data format.

Source	Container	Offset	Length	Operator	Value

[Add...](#)
[Edit...](#)
[Remove...](#)
[Move Up](#)
[Move Down](#)

[<- Back: Capture Point](#)
[Next: Information Sources ->](#)

Event Binding | Specification | Adapter

DemoCICSEP.evbind

Specifications

CICSPGM_OI5DDM

Delete_Capture

Capture Point | Filtering | **Information Sources**

Information Sources

Define where emitted business information is obtained by this capture specification

Name	Type	Format Length	Source	Container	Offset	Capture Length	Capture Type
Program...	Text	8	PROGRAM				
Record_...	Numeric	0	INTO-SET		0	4	Signed Fullword
Custom...	Text	26	INTO-SET		9	26	Character
Deleting...	Text	8	USERID				
Wage	Numeric	0	INTO-SET		4	4	Packed Decimal

[Edit...](#)

[<- Back: Filtering](#) [Next: Adapter ->](#)

Event Binding | Specification | Adapter

Specifications

CICS/PGM: OISDDM

Delete_Capture

Information Source for Customer_Name

Edit Information Source
Choose the source of business information for this capture specification

Available Data

- Application Context
 - USERID
 - PROGRAM
 - TRANSID
- Application Command Options
 - FILE
- Application Data
 - RIDFLD
 - INTO-SET

Select from imported language structure...

Container: _____

Type: Character

Offset: 9

Length: 26

Precision: 0

Codepage: Default (LOCALE CCSID)

Length | Capture Type | Edit...

	Signed Fullword	
	Character	
	Packed Decimal	

Next: Adapter ->

Language Structure: dt01copy.cbl

Obtain data format from imported language structure
Import a language structure and choose an item to obtain formatting information

Name	Format	Offset	Length	Precision
cicsvt_record		0	80	
oisenv_rc_number	Signed Fullword	0	4	
oisenv_rc_salary	Packed Decimal	4	4	0
oisenv_rc_filler1	Character	8	1	
oisenv_rc_name	Character	9	26	
oisenv_rc_desc	Character	35	28	
oisenv_rc_filler2	Character	63	17	

Change language structure... OK Cancel

DemoCICSEP.evbind

Adapter

▼ Adapter
Choose the adapter and settings to emit events.

Adapter: WMQ Queue
Queue: TS Queue
Persist: HTTP

Priority (Optional): 0 Queue Default
Expiry Time (1/10 secs) (Optional): 1 Never Expire
Data Format: WebSphere Business Events (XML)

Export Event Specifications...

► Advanced Options

Event Binding | Specification | **Adapter**

DemoCICSEP.evbind

Adapter

▼ **Adapter**
Choose the adapter and settings to emit events.

Adapter: WMQ Queue
Emits events to a WebSphere® Message Queue either in an XML format for consumption by WebSphere Business Events, the Common Base Event (CBE) format for WebSphere Business Monitor, or in a non-XML format

Queue Name: **BUSEVENT.DM25.QUEUE**

Persistent: Queue Default

Priority (Optional): 0 Queue Default

Expiry Time (1/10 secs) (Optional): 1 Never Expire

Data Format: WebSphere Business Events (XML)

Export Event Specifications...

► **Advanced Options**

Event Binding | Specification | **Adapter**

Adapter

Choose the adapter and settings to emit events.

Adapter: WMQ Queue

Emits events to a WebSphere® Message Queue either in an XML format for consumption by WebSphere Business Events, the Common Base Event (CBE) format for WebSphere Business Monitor, or in a non-XML format

Queue Name: BUSEVENT.DM25.QUEUE

Persistent: Queue Default

Priority (Optional): 0 Queue Default

Expiry Time (1/10 secs) (Optional): 1 Never Expire

Data Format: WebSphere Business Events (XML) (highlighted)

CICS Flattened Event (Binary)

Common Base Event (XML)

WebSphere Business Events (XML)

Export Event Specifications...

Advanced Options

Event Binding | Specification | Adapter

The screenshot shows the 'Adapter' configuration window in a software application. The window title is 'DemoCICSEP.evbind'. The main section is titled 'Adapter' and contains the following fields:

- Adapter:** A dropdown menu set to 'WMQ Queue'. Below it, a note reads: 'Emits events to a WebSphere® Message Queue either in an XML format for consumption by WebSphere Business Events, the Common Base Event (CBE) format for WebSphere Business Monitor, or in a non-XML format.'
- Queue Name:** A text field containing 'BUSEVENT.DM25.QUEUE'.
- Persistent:** A dropdown menu set to 'Queue Default'.
- Priority (Optional):** A text field containing '0'. To its right is a checked checkbox labeled 'Queue Default'.
- Expiry Time (1/10 secs) (Optional):** A text field containing '1'. To its right is a checked checkbox labeled 'Never Expire'.
- Data Format:** A dropdown menu set to 'WebSphere Business Events (XML)'.

Below the main configuration area, there is a button labeled 'Export Event Specifications...' which is highlighted with a red rectangle. Below this button is a section titled 'Advanced Options'.

An 'Export Event Specifications' dialog box is open over the main window. The dialog has a title bar with the text 'Export Event Specifications'. Inside, it says 'Select' and 'Select the event specifications to export and the destination directory.' Below this is a list box containing one item: 'CICSPGM_OISDDM', which is checked. To the right of the list box are buttons for 'Select All', 'Deselect All', and 'Browse...'. At the bottom of the dialog, there is a 'To directory:' text box containing 'C:\temp', and 'Export' and 'Cancel' buttons.

Solution Overview

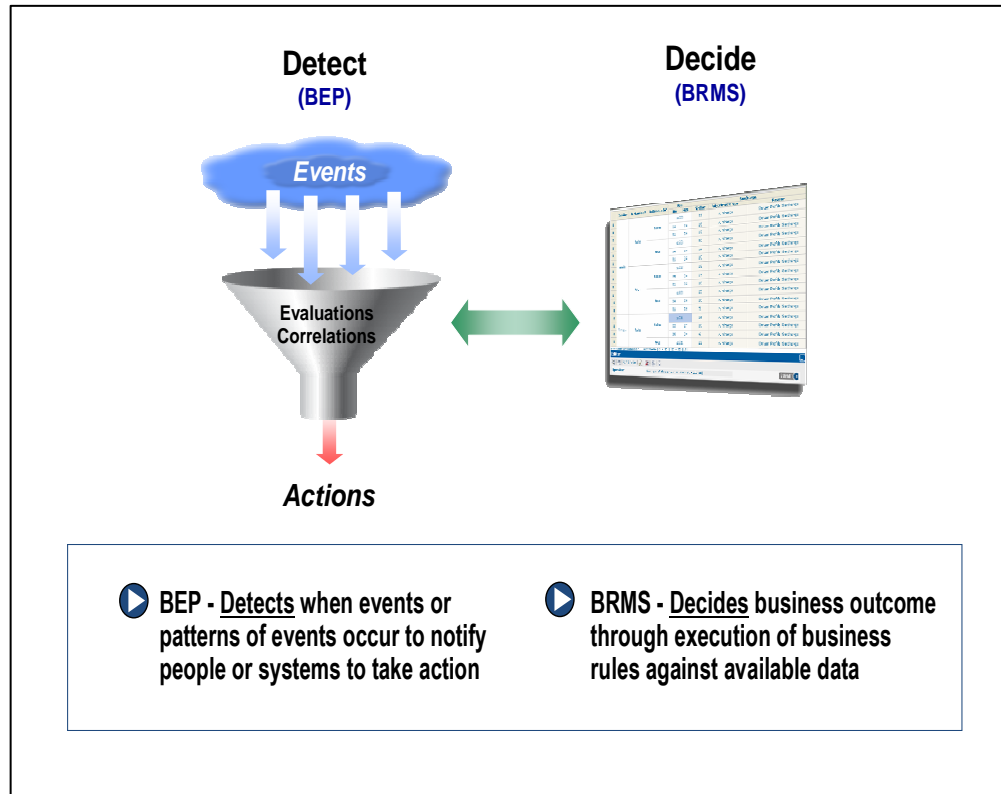
- 1** *Decision Server Concepts*
- 2** *Business Events*
- 3** *Business Rules*

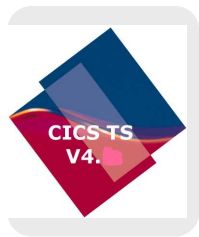
Solution and Demonstration

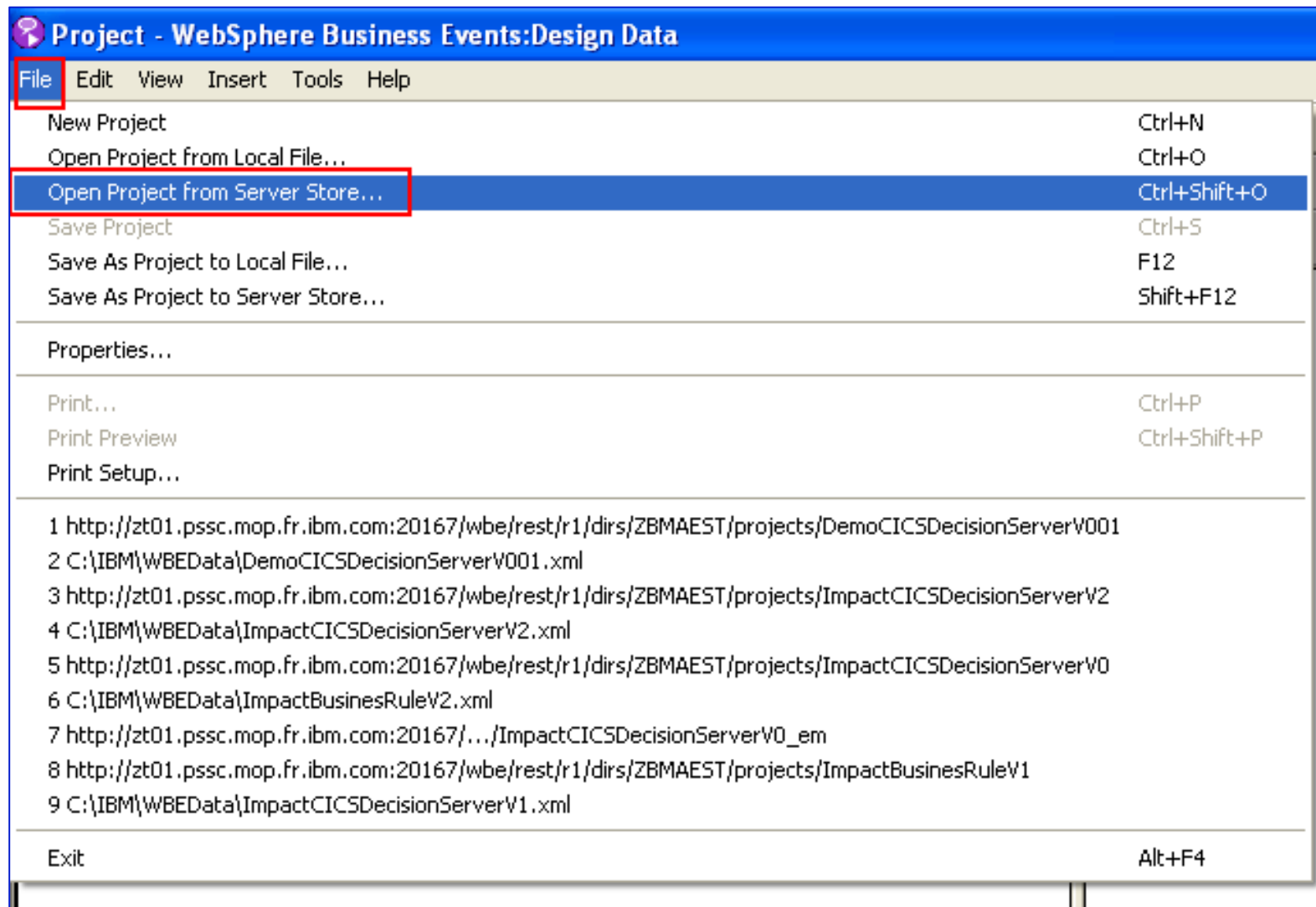
- 4** *CICS Business Events*
- 5** *Business Event Processing*
- 6** *Business Rule Processing*

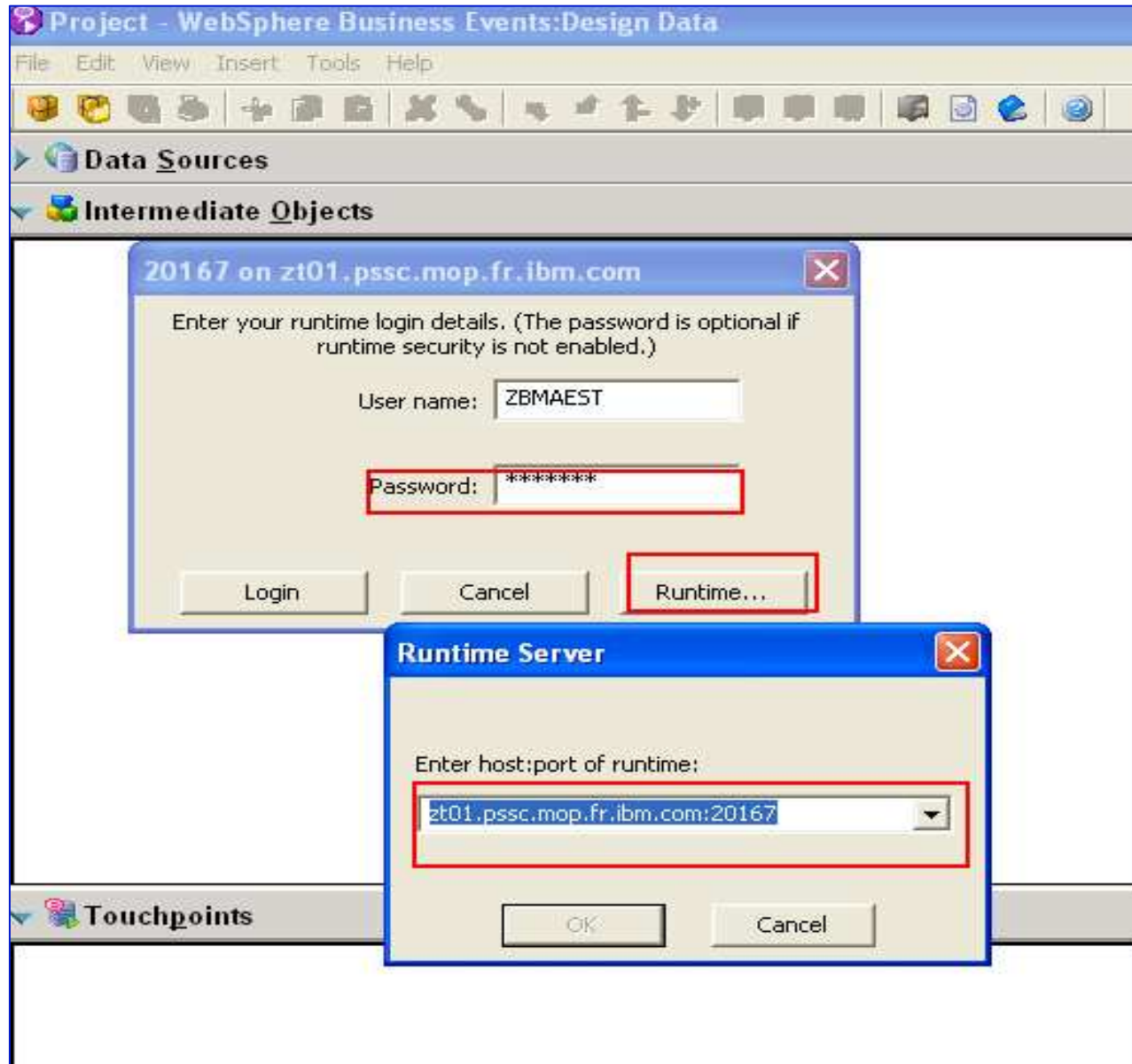


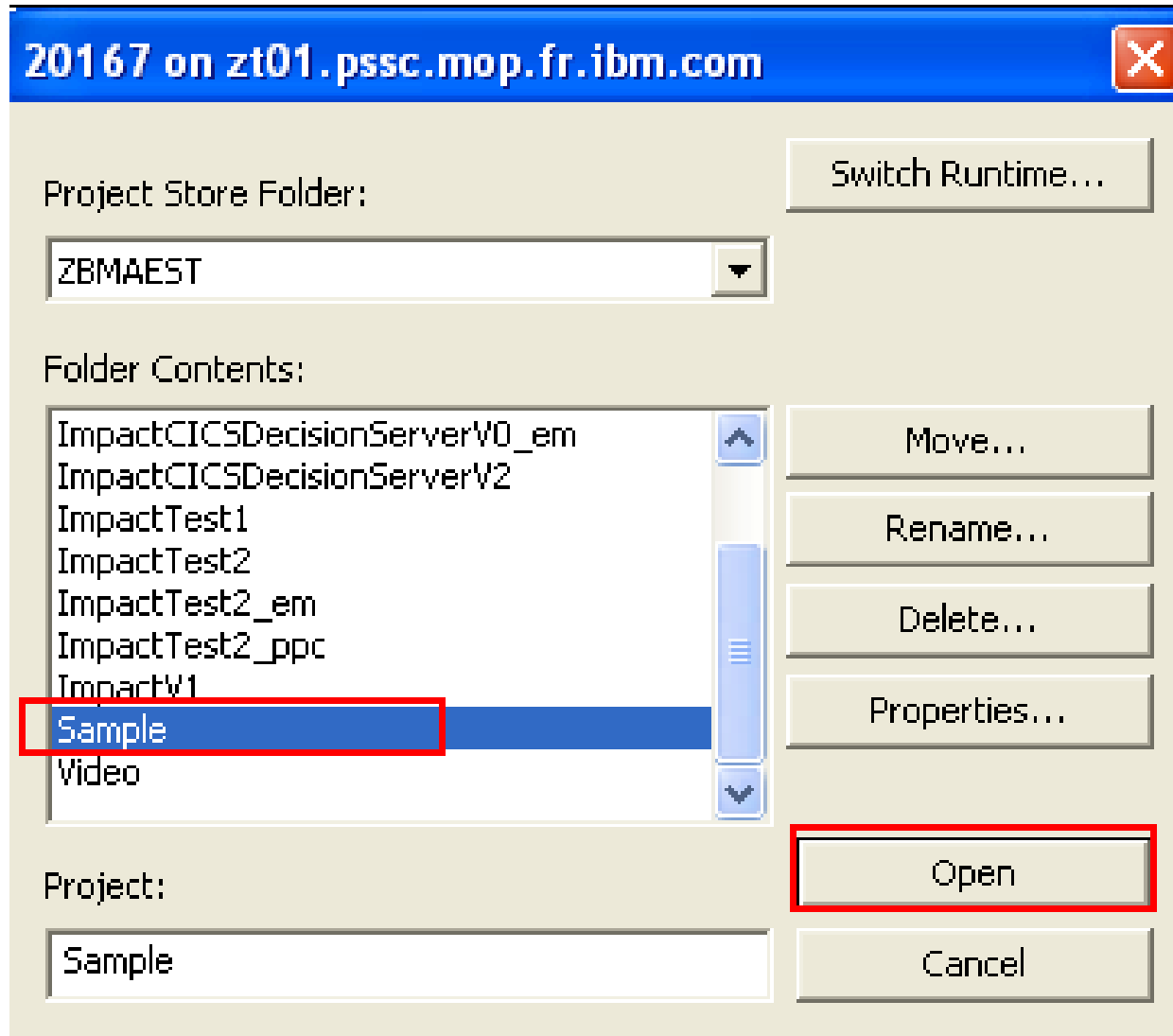
Mapping : Detect – Decide - Action











The screenshot displays the IBM Design Data interface. On the left, a tree view under the 'Touchpoints' folder shows the following structure:

- CICS
 - OISDDM25
 - OISDDM25_Context
 - OISDDM25_Data
 - [CICSData]
 - Email
 - SendEmail
 - EmailData**

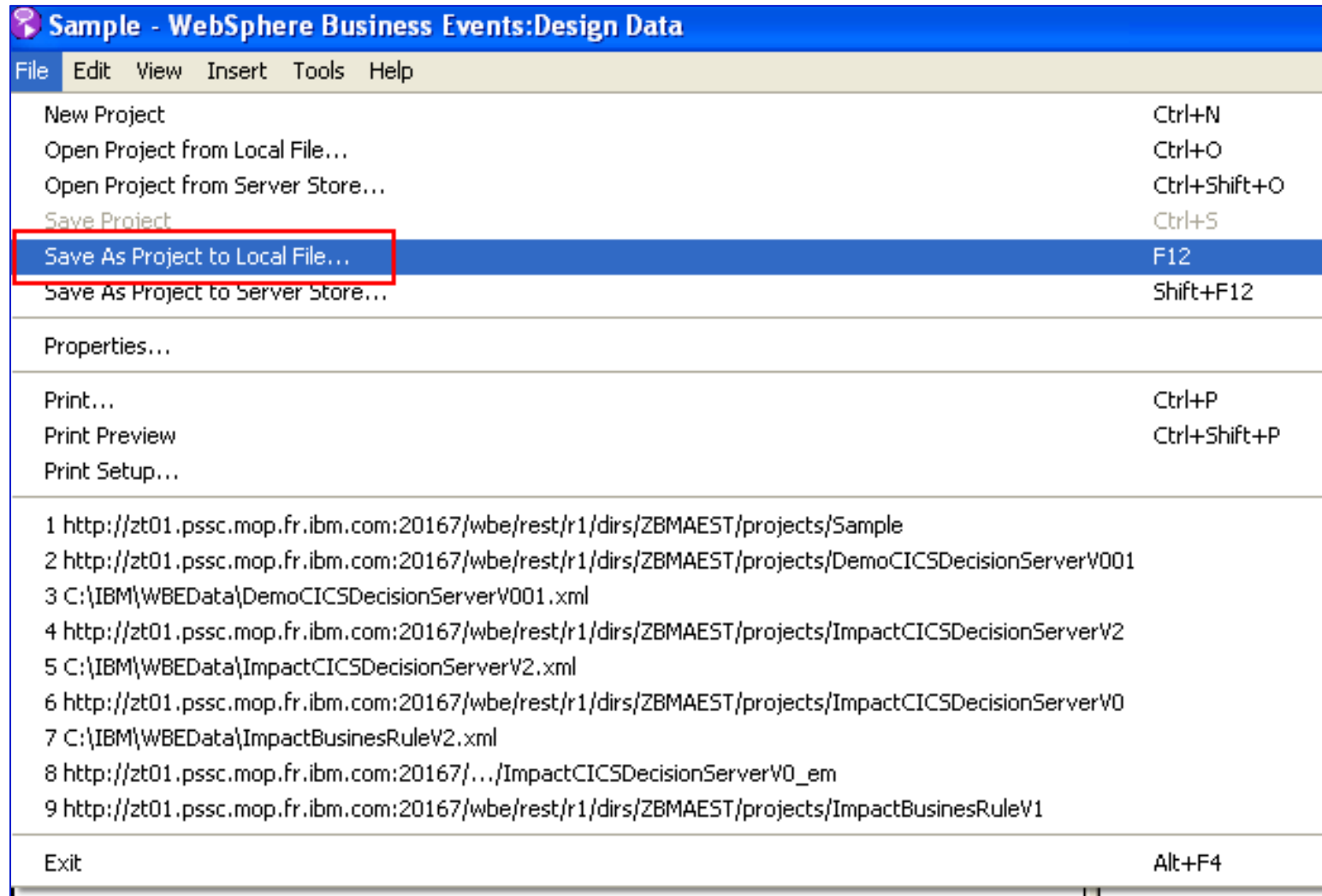
The 'EmailData' node is highlighted with a red box. On the right, a data table is shown with the following rows:

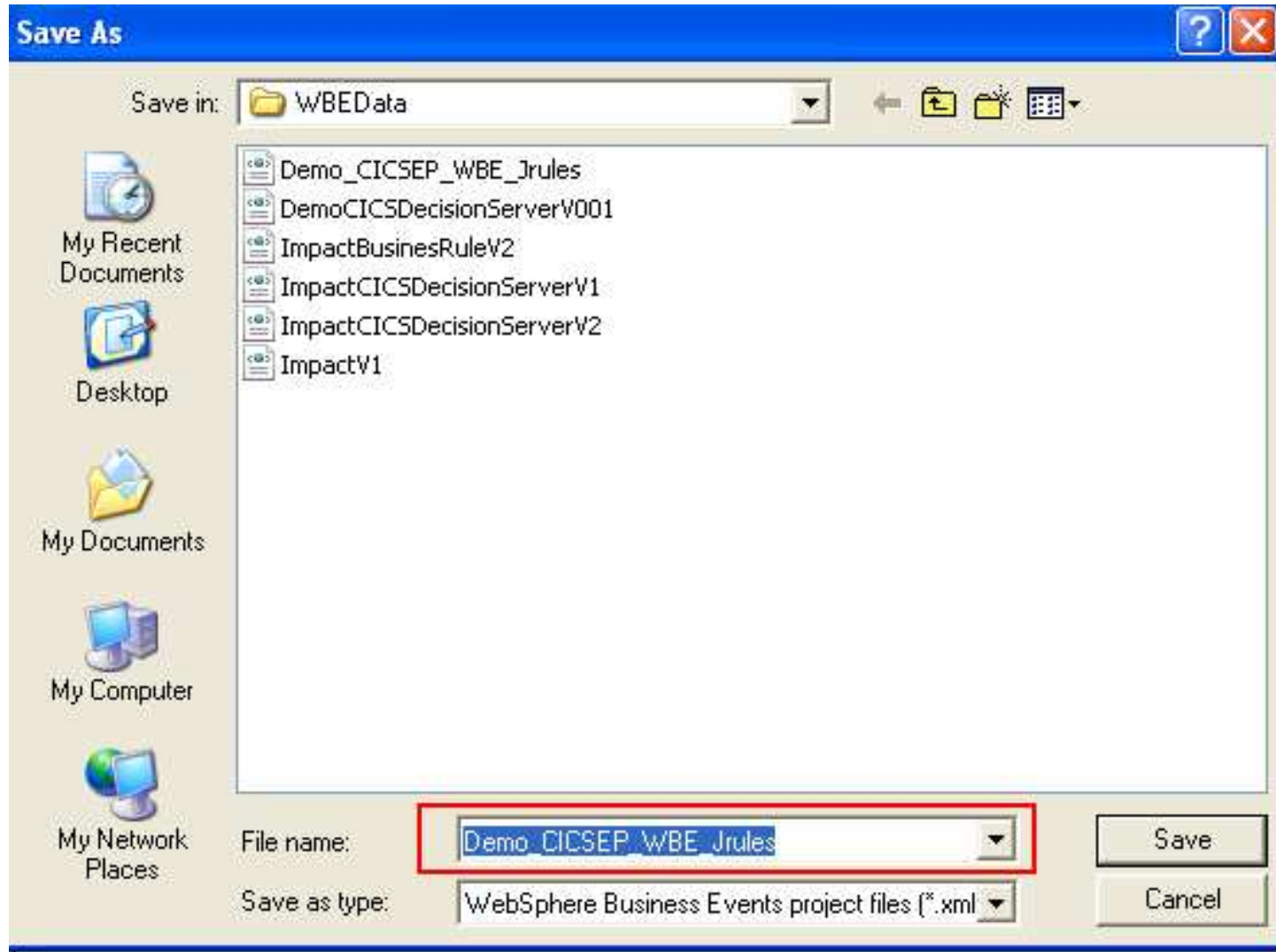
▶ Program_Name
▶ Record_No
▶ Customer_Name
▶ Userid_of_Delete
▶ Wage

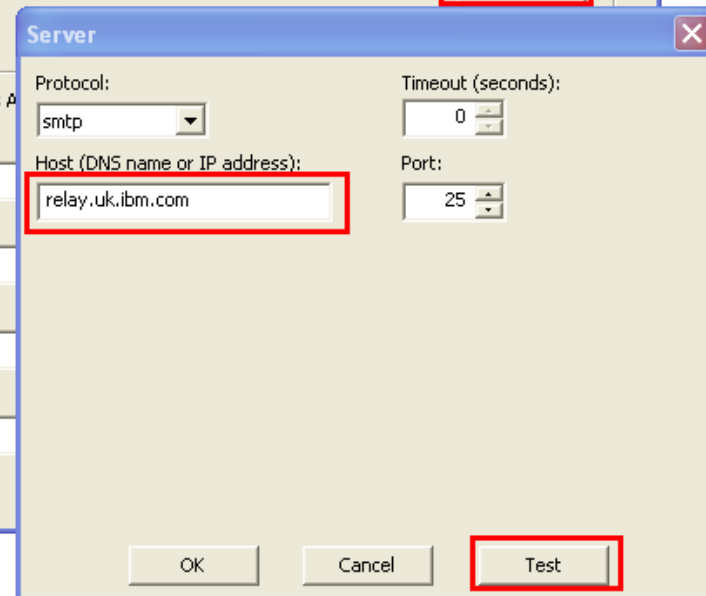
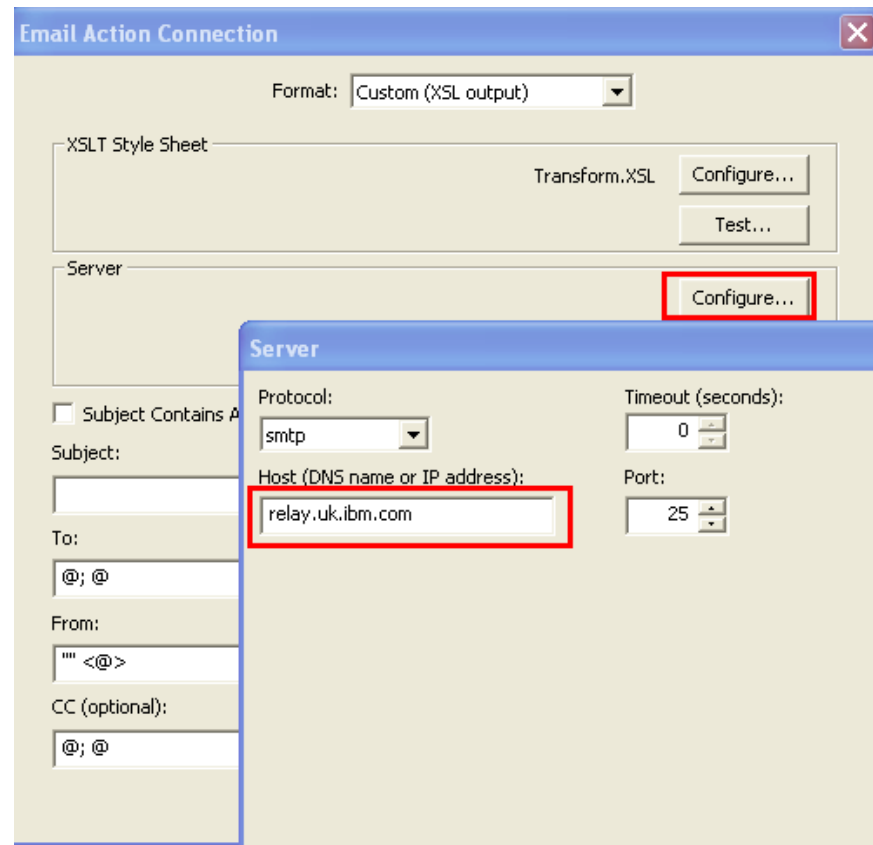
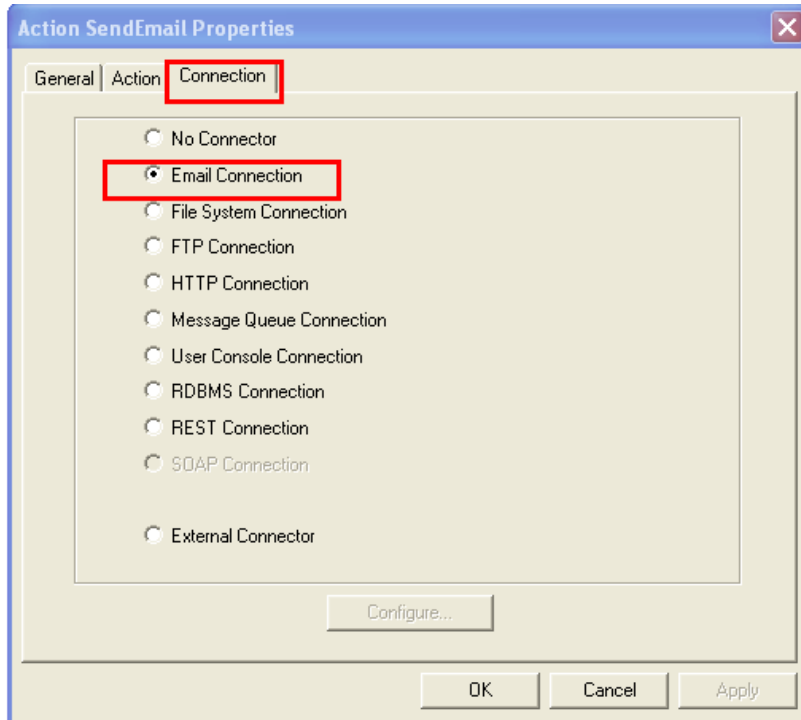
A context menu is open over the 'Wage' row. The menu items are:

- Cut
- Copy
- Paste
- Move Up
- Move Down
- Select All** (Ctrl+A)
- Insert Field... (Insert)
- Delete**
- Expand Properties

The 'Select All' and 'Delete' items are highlighted with red boxes.







Email Action Connection [Close]

Format: Custom (XSL output) [v]

XSLT Style Sheet: Transform.XSL [Configure...] [Test...]

Server: smtp:/ [Configure...]

Contact Frequency (minutes): 10 [v]

Subject Contains Action Name

Subject: System z (CICS) and Decision Server (WBE - ILOG BRMS) Integration Demo

To: yao_assou@fr.ibm.com;

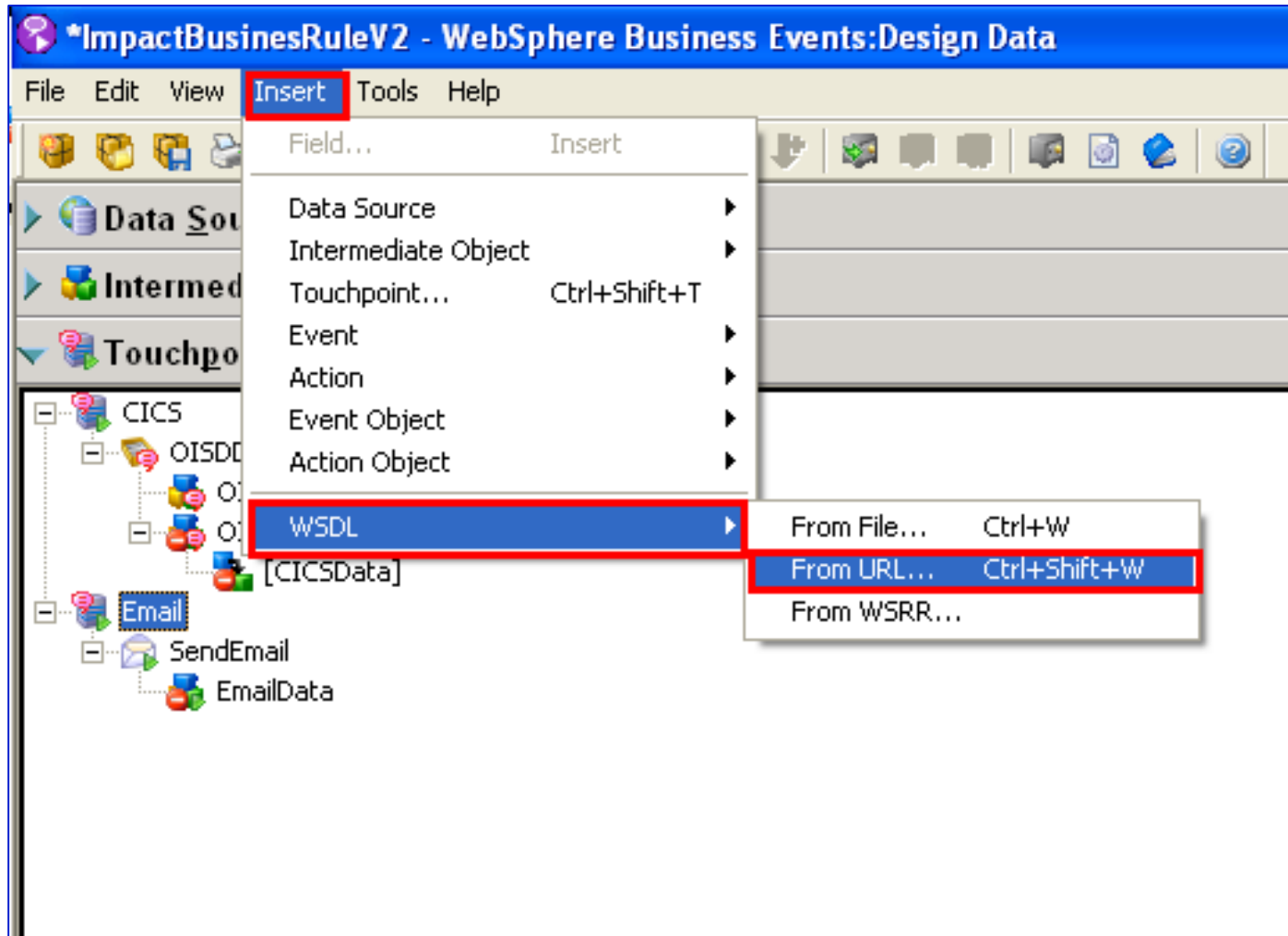
From: yao_assou@fr.ibm.com

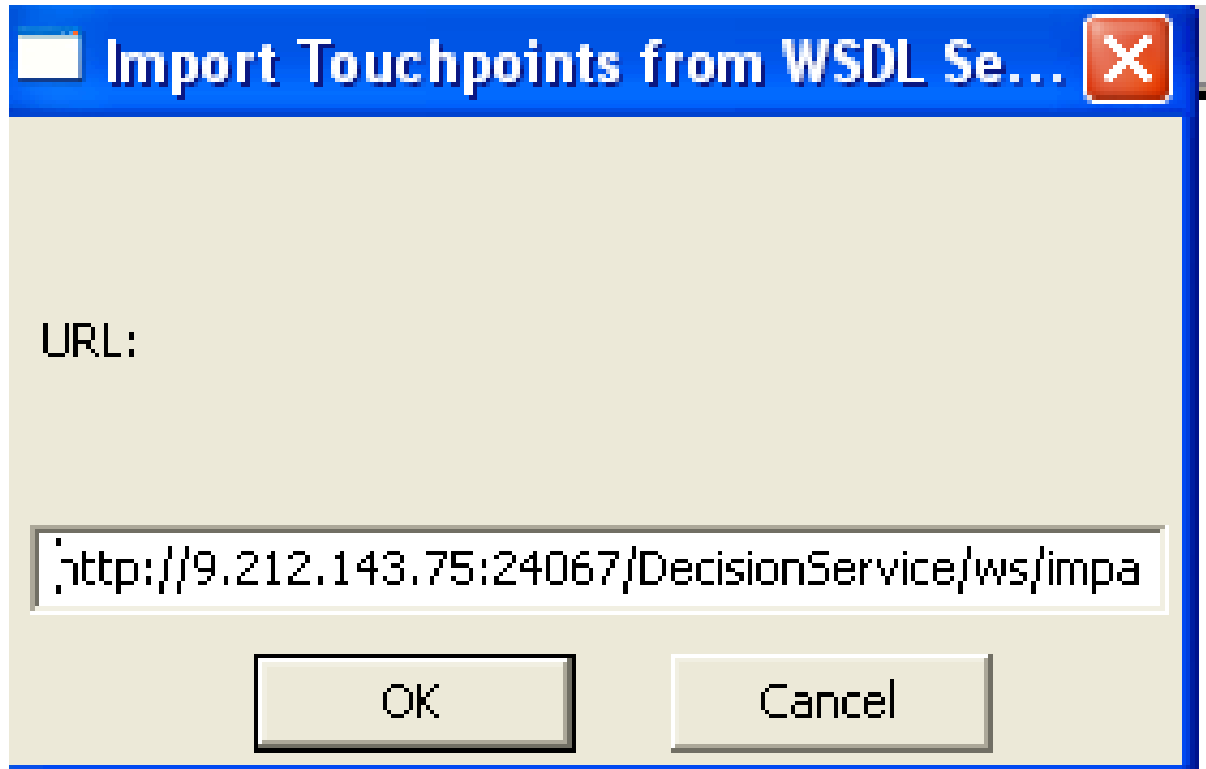
Reply (optional): @

CC (optional): @; @

BCC (optional): @; @

[OK] [Cancel]





http://9.212.143.75:24067/DecisionService/ws/PoTCICSDSRulesApp00/1.0/CICS_DS_rules00/1.0?WSDL

The screenshot shows the 'Touchpoints' tool interface. The project tree is expanded to show the following structure:

- CICS
 - OISDDM25
 - OISDDM25_Context
 - OISDDM25_Data
 - [CICSData]
 - DecisionServiceCICS_DS_rules00 (highlighted with a red box)
 - DecisionServiceSoapFault <- executeDecisionService
 - DecisionID2 <- DecisionID
 - CustLoanWageArgReq2 <- CustLoanWageArgReq
 - executeDecisionServiceResponse <- executeDecisionService
 - ilog_rules_outputString
 - ilog_rules_firedRulesCount
 - DecisionID1
 - CustLoanWageArgReq1
 - DecisionID <- DecisionID
 - CustLoanWageArgReq <- CustLoanWageArgReq
 - executeDecisionService
 - DecisionID
 - CustLoanWageArgReq
 - Email
 - SendEmail

The screenshot displays the IBM Design Center interface. On the left, a project tree shows a hierarchy starting with 'CICS', followed by 'OISDDM25' and its sub-objects like 'OISDDM25_Context', 'OISDDM25_Data', and '[CICSData]'. Below these are various decision service objects, including 'DecisionServiceCICS_DS_rules00' and several 'executeDecisionService' and 'DecisionID' objects. The 'DecisionID' object is highlighted with a red box. On the right, a configuration panel is open. It has a table-like structure with columns for 'Action object field:', 'Data type:', and 'Description:'. The first row shows a hyphen '-' for the field, 'String' for the data type, and '(xsd:string) Connector uses the value of this field for the object.' for the description. Below this is a 'Definition' section with 'Type:' and 'Expression:' labels. The 'Type:' dropdown is set to 'Constant Value' and the 'Expression:' field contains 'CICS'. Both the 'Constant Value' dropdown and the 'CICS' text are highlighted with red boxes. At the bottom of the panel is a button labeled 'Insert object field ->'.

Touchpoints

- CICS
 - OISDDM25
 - OISDDM25_Context
 - OISDDM25_Data
 - [CICSData]
 - DecisionServiceCICS_DS_rules00
 - DecisionServiceSoapFault <- executeDecisionService
 - DecisionID2 <- DecisionID
 - CustLoanWageArgReq2 <- CustLoanWageArgReq
 - executeDecisionServiceResponse <- executeDecisionService
 - ilog_rules_outputString
 - ilog_rules_firedRulesCount
 - DecisionID1
 - CustLoanWageArgReq1
 - DecisionID <- DecisionID
 - CustLoanWageArgReq <- CustLoanWageArgReq
 - executeDecisionService
 - DecisionID
 - CustLoanWageArgReq**
- Email

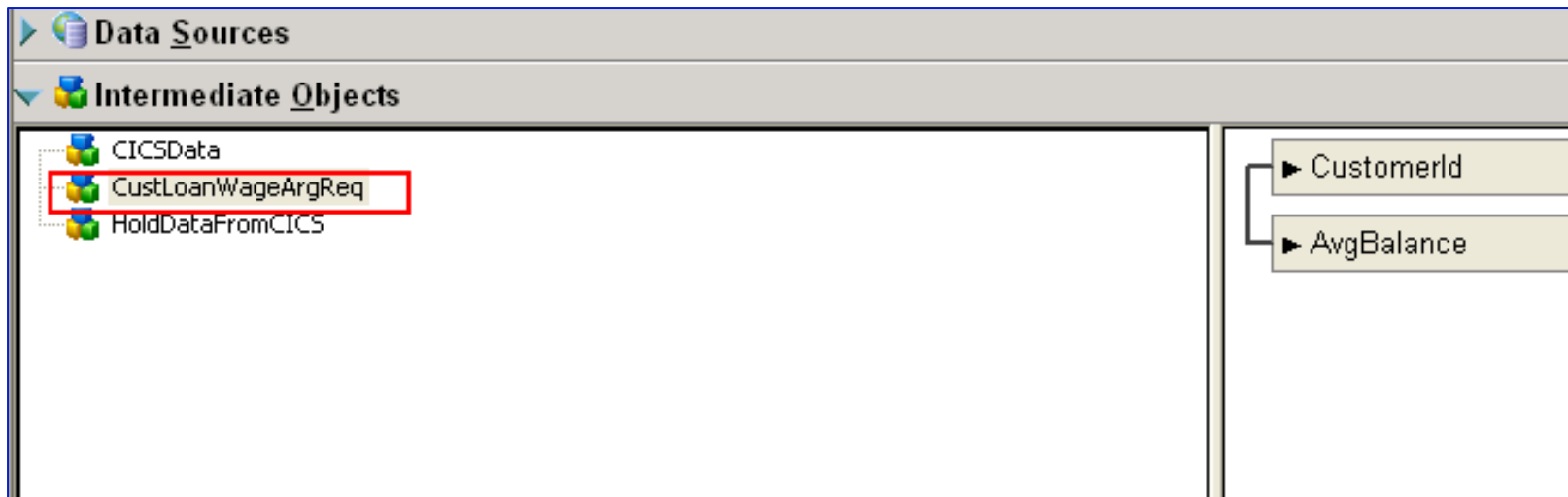
Fields:

- ▶ CustomerId
- ▶ CreditRating
- ▶ AvgBalance
- ▶ CustomerSince
- ▶ CustomerLevel
- ▶ Principal
- ▶ BaselInterest
- ▶ Terms
- ▶ InterestRate
- ▶ InterestRatePremium

The screenshot shows the IBM Design Center interface. On the left is a project tree under 'Touchpoints' containing a 'CICS' project with various data and decision service objects. On the right is a rule editor for a rule named 'CustomerSince'. The rule's data type is set to 'Integer'. The definition is 'Constant Value' with an expression of '2'. Red boxes highlight the 'Action object field' section, the 'CustomerSince' field, the 'Constant Value' type, and the '2' expression.

Input Parameters Value									
Custom er Id	Credit Rating	Avg Balance	Custom er Since	Custom er Level	Principal	Base Interest	Term	Inter est Premium	Inter est Rate
123	600	150000	2	blank	500000	3	15	0	0

The screenshot displays two panels from the IBM Design Data tool. The top panel, titled "Intermediate Objects", shows a tree view with three items: "CICSData", "CustLoanWageArgReq", and "HoldDataFromCICS". A red arrow points from the "CustLoanWageArgReq" item in this panel down to the "CustLoanWageArgReq" item in the "Touchpoints" panel below. The "Touchpoints" panel shows a more detailed tree view of the application logic, including decision services and data objects. The "CustLoanWageArgReq" item is highlighted with a red box. To the right of both panels is a list of data fields: CustomerId, CreditRating, AvgBalance, CustomerSince, CustomerLevel, Principal, BaselInterest, Terms, InterestRate, and InterestRatePremium. This list is identical in both panels.



The screenshot displays the 'Touchpoints' tree view in IBM Design Center. The 'OISDDM25 Data' object is selected, and a context menu is open. The 'Insert Field Constructor from Object' option is highlighted. A sub-menu is also open, showing 'HoldDataFromCICS' selected, which points to the 'CustomerName' field in the data table on the right.

Field Name
Program_Name
Record_No
Customer_Name
Userid_of_Delete
Wage
CustomerName
PgmName
RecNumber

The screenshot displays the 'Touchpoints' tree on the left and a field constructor menu on the right. The tree shows a hierarchy starting with 'CICS', followed by 'OISDDM25', 'OISDDM25_Context', and 'OISDDM25_Data'. A context menu is open over 'OISDDM25_Data', with 'Insert Field Constructor from Object' selected. This opens a secondary menu listing objects: 'CICSData', 'CustLoanWageArgReq', 'CustLoanWageArgReq1', 'DecisionID', and 'DecisionID1'. The 'HoldDataFromCICS' option is selected in this menu, which then opens a third menu listing fields: 'CustomerName', 'PgmName', and 'RecNumber'. The 'CustomerName' field is highlighted in red.

The screenshot shows the IBM Design Data interface. On the left is a project tree for 'hpoints' containing several objects like 'OISDDM25' and 'OISDDM25_Data'. On the right is the 'Definition' editor for an 'Intermediate object field'. The field name 'Userid_of_Delete' is highlighted with a red box. Below it, the 'Type' is set to 'JavaScript', also highlighted with a red box. The 'Expression' field contains the following JavaScript code, which is also highlighted with a red box:

```
function trim(s) {  
    s = s.replace(/(^|s*)(|s*$)/gi, "");  
    return s;  
}  
trim(Deleting_User_id)
```

Other fields in the list include 'Program_Name', 'Record_No', and 'Customer_Name'. The 'Data type' for 'Userid_of_Delete' is 'String'. An 'Insert object field ->' button is visible at the bottom of the editor.

Touchpoints

- CICS
 - OISDDM25
 - OISDDM25_Context
 - OISDDM25_Data
 - [CICSData]
 - [HoldDataFromCICS]
 - [CustLoanWageArgReq]
- DecisionServiceCICS_DS_rules00
- Email

AvgBalance

Intermediate object field:	Data type:	Description:
CustomerId	String	

Definition

Type: JavaScript

Expression:

```
function trim(s) {  
    s = s.replace(/(^|s*)(|s*$)/gi, "");  
    return s;  
}  
trim(Deleting_User_id)
```

Insert object field ->

The screenshot displays the IBM Design Data interface. On the left, a tree view under 'Touchpoints' shows a hierarchy: CICS > OISDDM25 > OISDDM25_Data > [CICSData] > [HoldDataFromCICS]. The [HoldDataFromCICS] node is highlighted with a red box. On the right, the configuration panel for the selected node is shown. It includes fields for 'Intermediate object field' (CustomerName), 'Data type' (String), and 'Description'. Below these is a 'Definition' section with 'Type' set to 'Field' and 'Expression' set to 'Customer_Name'. A red box highlights the 'Field' type. Below the definition section is an 'Insert object field ->' button, also highlighted with a red box. A dropdown menu is open from this button, listing several fields: HoldDataFromCICS, Customer_Name (highlighted in blue), Program_Name, Record_No, Userid_of_Delete, and Wage. At the bottom of the configuration panel, there are expandable sections for 'PgmName' and 'RecNumber'.

Touchpoints

- CICS
 - OISDDM25
 - OISDDM25_Context
 - OISDDM25_Data
 - [CICSData]
 - [HoldDataFromCICS]
 - [CustLoanWageArgReq]
- DecisionServiceCICS_DS_rules00
- Email

CustomerName

PgmName

Intermediate object field: Data type: Des

RecNumber Real

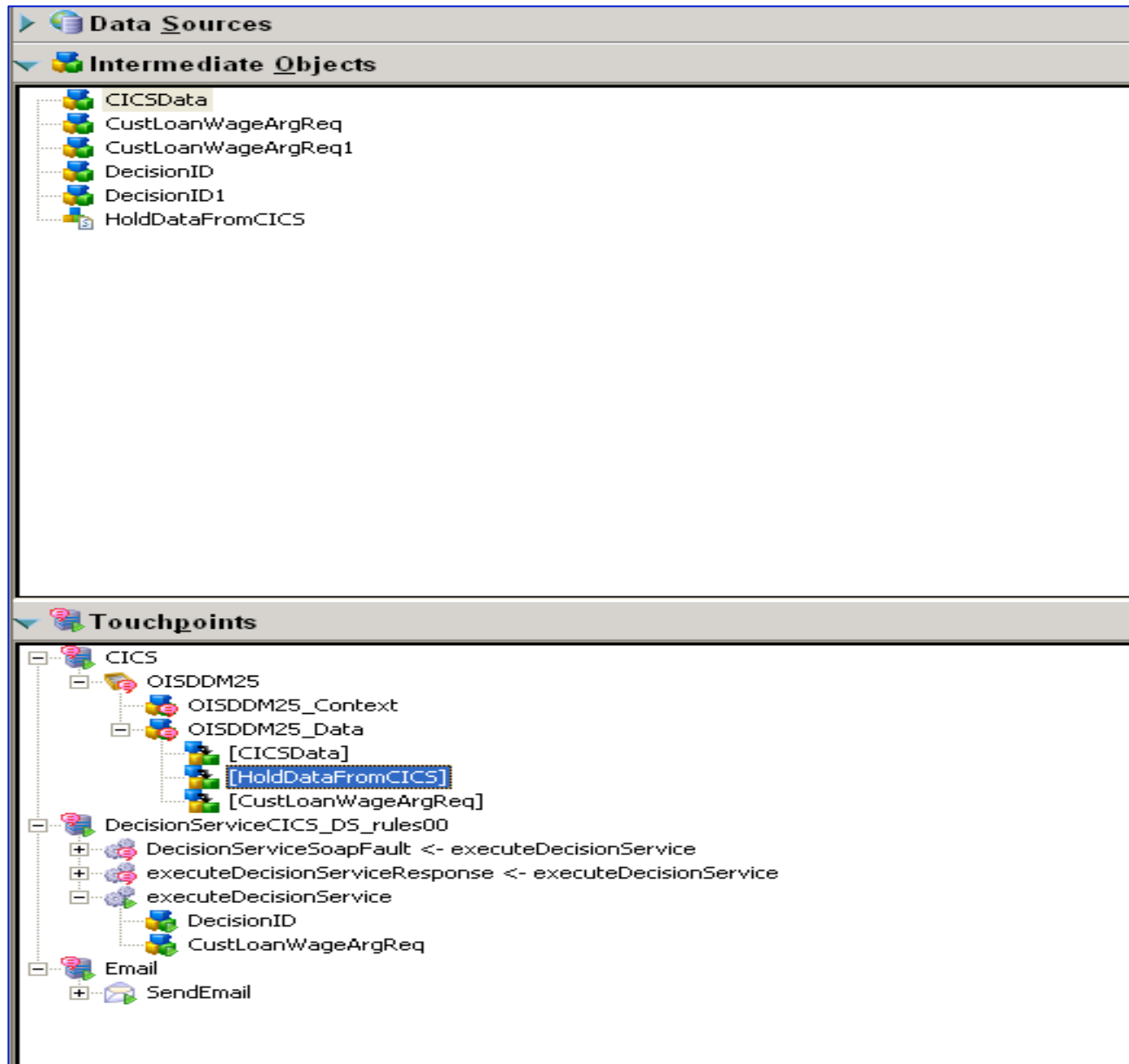
Definition

Type: Expression:

Field Record_No

Insert object field ->

- HoldDataFromCICS
- Customer_Name
- Program_Name
- Record_No
- Userid_of_Delete
- Wage



The screenshot displays the IBM Design Data tool interface, divided into two main sections: **Intermediate Objects** and **Touchpoints**.

Intermediate Objects Panel:

- Tree view: CICSData, CustLoanWageArgReq, CustLoanWageArgReq1 (highlighted with a red box), DecisionID, DecisionID1, HoldDataFromCICS (highlighted with a red box).
- Property list (right): PgmName, CustomerName, RecNumber.

Touchpoints Panel:

- Tree view: CICS, OISDDM25, OISDDM25_Context, OISDDM25_Data, [CICSData], [HoldDataFromCICS], [CustLoanWageArgReq], DecisionServiceCICS_DS_rules00, DecisionServiceSoapFault <- executeDecisionService, executeDecisionServiceResponse <- executeDecisionService, executeDecisionService, Email, SendEmail, EmailData (highlighted with a red box).
- Property list (right): CreditRating, AvgBalance, CustomerSince, CustomerLevel, Principal, BaselInterest, Terms, InterestRate, InterestRatePremium, PgmName.

Relationships (Red Arrows):

- A red arrow points from the **CustLoanWageArgReq1** object in the Intermediate Objects panel to the **CreditRating** property in the Touchpoints panel.
- A red arrow points from the **HoldDataFromCICS** object in the Intermediate Objects panel to the **AvgBalance** property in the Touchpoints panel.

Demo_CICSEP_WBE_Jrules - WebSphere Business Events:Design Data

File	Edit	View	Insert	Tools	Help
New Project					Ctrl+N
Open Project from Local File...					Ctrl+O
Open Project from Server Store...					Ctrl+Shift+O
Save Project					Ctrl+S
Save As Project to Local File					F12
Save As Project to Server Store...					Shift+F12
Properties...					
Print...					Ctrl+P
Print Preview					Ctrl+Shift+P
Print Setup...					
<ul style="list-style-type: none"> 1 C:\IBM\WBEData\Demo_CICSEP_WBE_Jrules.xml 2 http://zt01.pssc.mop.fr.ibm.com:20167/wbe/rest/r1/dirs/ZBMAEST/projects/ImpactCICSDecisionServerV0 3 http://zt01.pssc.mop.fr.ibm.com:20167/.../ImpactCICSDecisionServerV0_em 4 http://zt01.pssc.mop.fr.ibm.com:20167/wbe/rest/r1/dirs/ZBMAEST/projects/Sample 5 http://zt01.pssc.mop.fr.ibm.com:20167/wbe/rest/r1/dirs/ZBMAEST/projects/DemoCICSDecisionServerV001 6 C:\IBM\WBEData\DemoCICSDecisionServerV001.xml 7 http://zt01.pssc.mop.fr.ibm.com:20167/wbe/rest/r1/dirs/ZBMAEST/projects/ImpactCICSDecisionServerV2 8 C:\IBM\WBEData\ImpactCICSDecisionServerV2.xml 9 C:\IBM\WBEData\ImpactBusinesRuleV2.xml 					
Exit					Alt+F4

20167 on zt01.pssc.mop.fr.ibm.com

Project Store Folder:

ZBMAEST

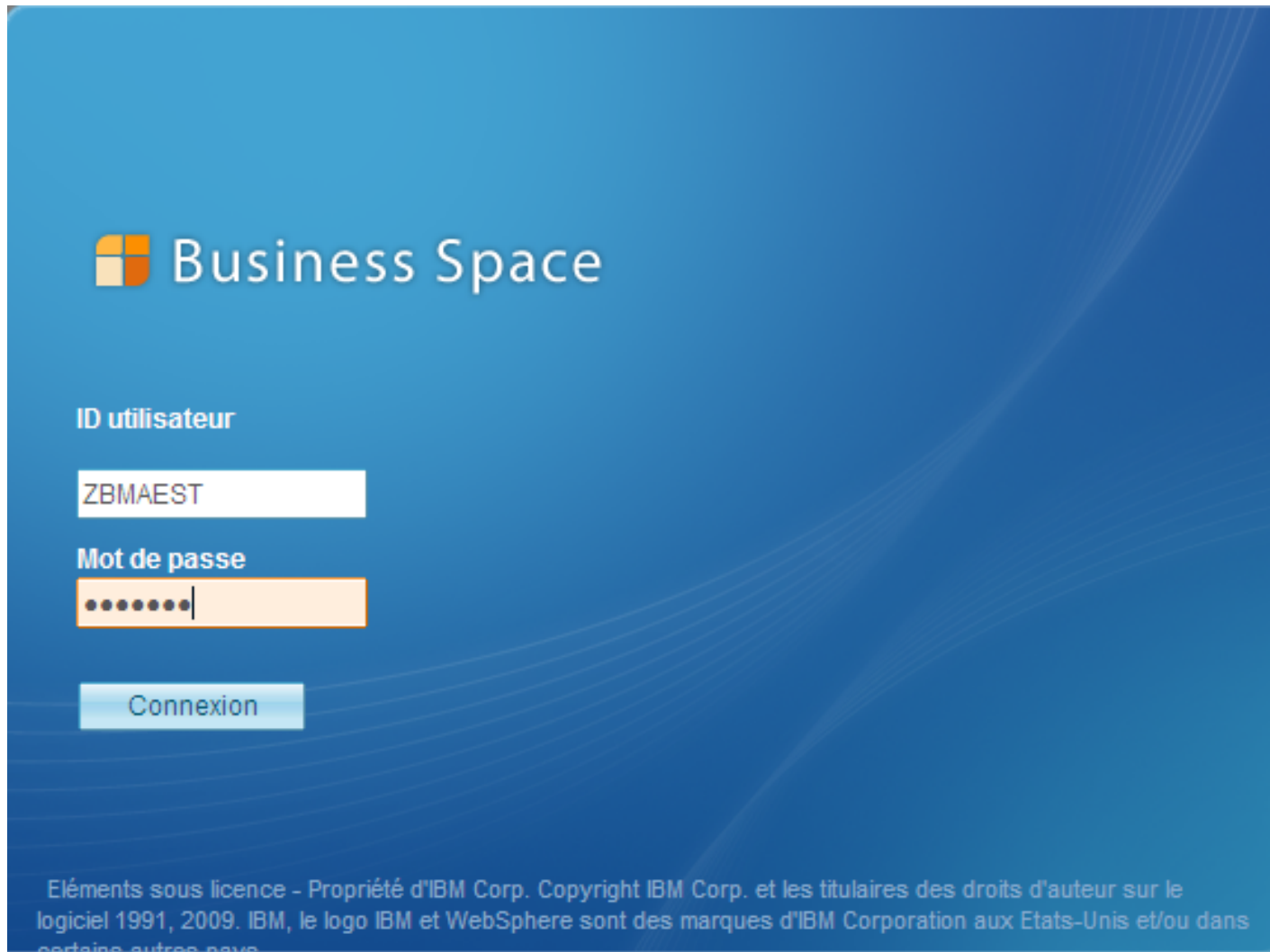
Folder Contents:

- DemoCICSDDecisionServerV001
- ImpactBusinessRuleV1
- ImpactCICSDDecisionServerV0
- ImpactCICSDDecisionServerV0_em
- ImpactCICSDDecisionServerV2
- ImpactTest1
- ImpactTest2
- ImpactTest2_em
- ImpactTest2_ppc
- ImpactV1

Project:

Demo_CICSEP_wBE_Jrules

Buttons: Switch Runtime..., New Folder..., Move..., Rename..., Delete..., Properties..., Save, Cancel



Business Space

ID utilisateur

ZBMAEST

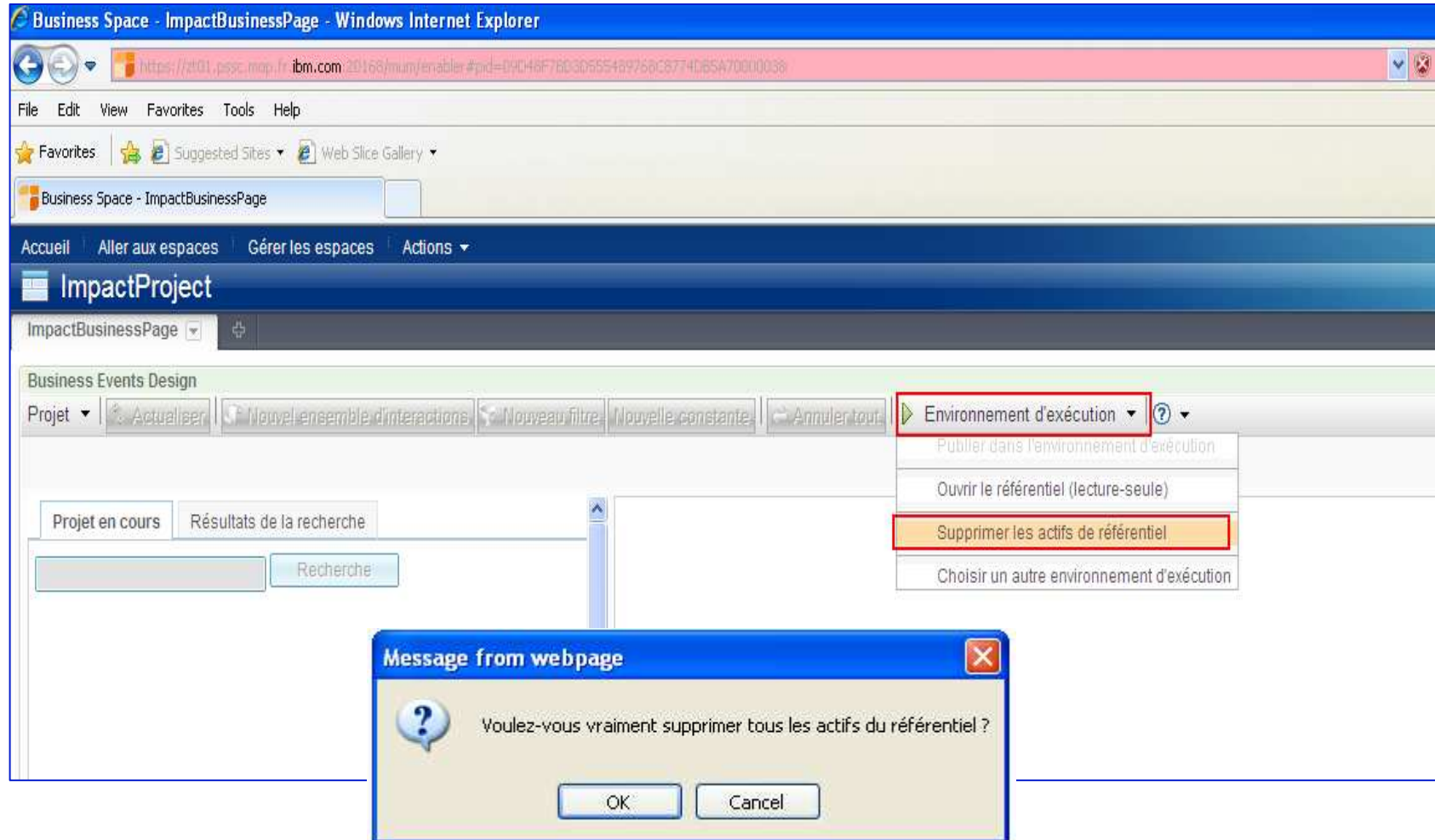
Mot de passe

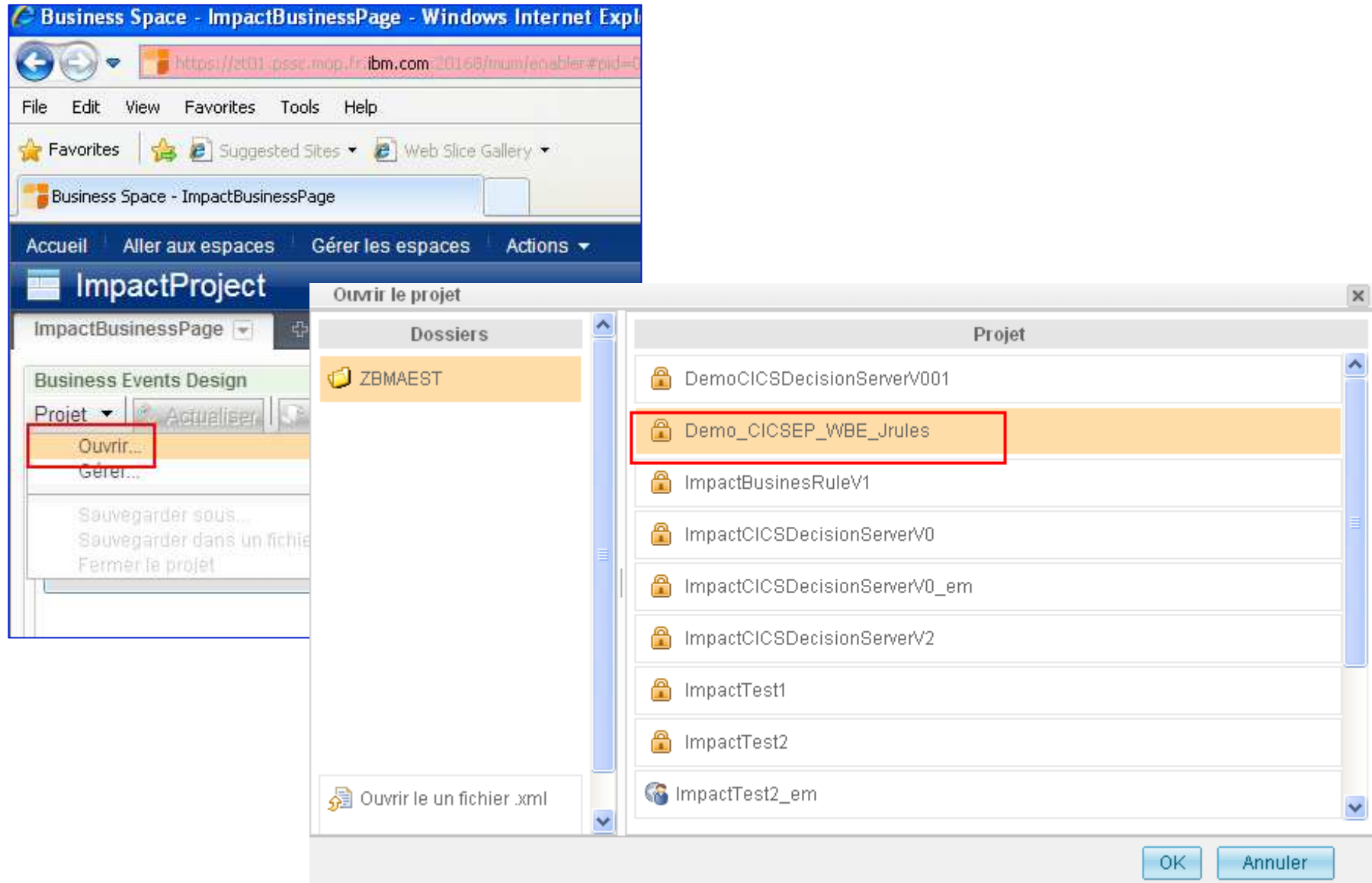
•••••••|

Connexion

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<https://zt01.pssc.mop.fr.ibm.com:20168/mum/resources/bootstrap/login.jsp>





The screenshot displays the IBM Business Space interface for configuring Business Events Design. The main window is titled "ImpactProject" and shows a project structure on the left and a configuration area on the right.

Project Structure (Left):

- ImpactBusinessPage
- Business Events Design
 - Projet
 - Actualiser
 - Nouvel ensemble d'interactions
 - Nouveau filtre
- Projet en cours
- Résultats de la recherche
- Recherche
- Demo_CICSEP_WBE_Jrules
 - Ensembles d'interactions
 - CICS-DecisionServer
 - Filtres
 - Evénements (par point de liaison)
 - Actions (par point de liaison)
 - Zones (par objet intermédiaire)

The image displays two screenshots of the IBM Business Space interface, illustrating the configuration of decision services and email actions within interaction sets.

Top Screenshot: FromCICSInteraction

- Ensemble d'interactions:** FromCICSInteraction
- En réponse à :** OISDDM25 (CICS)
- Condition:** Immédiatement
- Alors :** Immédiatement
- Action:** executeDecisionService (DecisionServiceCICS_DS_rules00)

The dropdown menu for the action is open, showing the following options:

- DecisionServiceCICS_DS_rules00 (highlighted)
- executeDecisionService
- Email

Bottom Screenshot: ReturnFromBRMSSendMail

- Ensemble d'interactions:** ReturnFromBRMSSendMail
- En réponse à :** executeDecisionServiceResponse (DecisionServiceCICS_DS_rules00)
- Condition:** Immédiatement
- Alors :** Immédiatement
- Action:** SendEmail (Email)

The dropdown menu for the action is open, showing the following options:

- Email (highlighted)
- SendEmail

Ensemble d'interactions: FromCICSInteraction Associé par: CICSData.UserId_of_Delete

En réponse à: OISDDM25 (CICS)

Immédiatement

Toujours

Alors : Immédiatement executeDecisionService (DecisionServiceCICS_DS_rules00)

Ensemble d'interactions: ReturnFromBRMSSendMail Associé par: CustLoanWageArgReq1.CustomerId

En réponse à: executeDecisionServiceResponse (DecisionServiceCICS_DS_rules00)

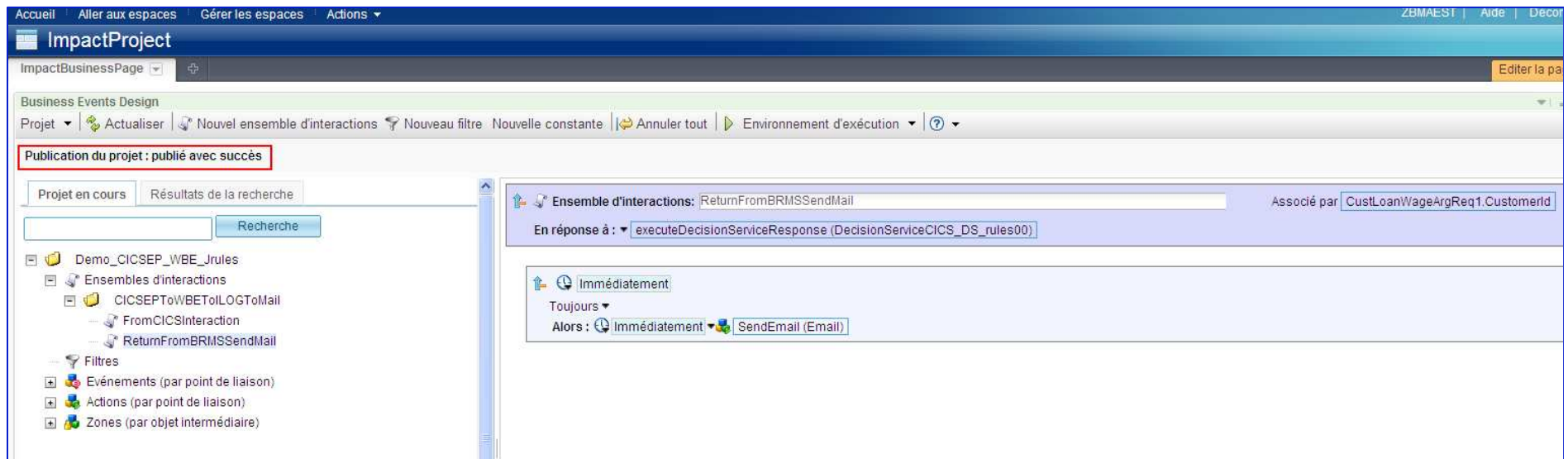
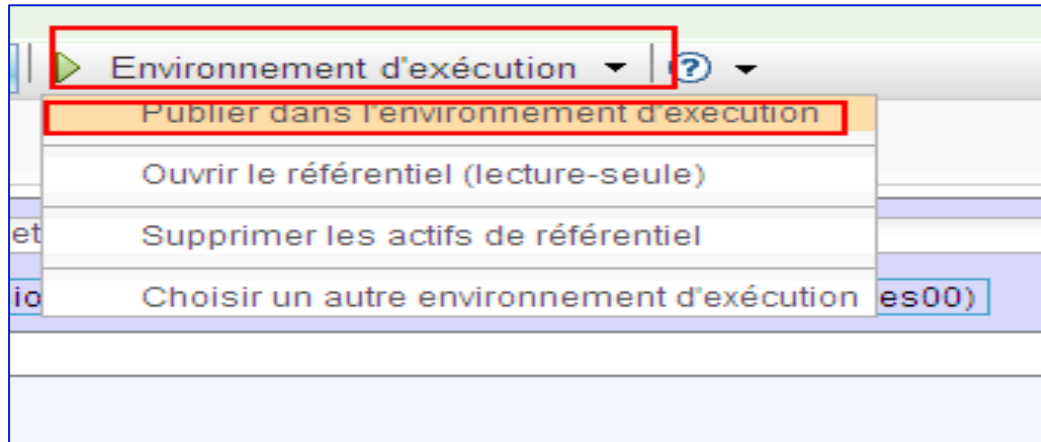
Immédiatement

Toujours

Alors : Immédiatement SendEmail (Email)

Zones disponibles

- DecisionID1
- CustLoanWageArgReq1**
- CustomerId
- CreditRating
- AvgBalance
- CustomerSince
- CustomerLevel
- Principal
- BaseInterest
- Terms
- InterestRate
- InterestRatePremium



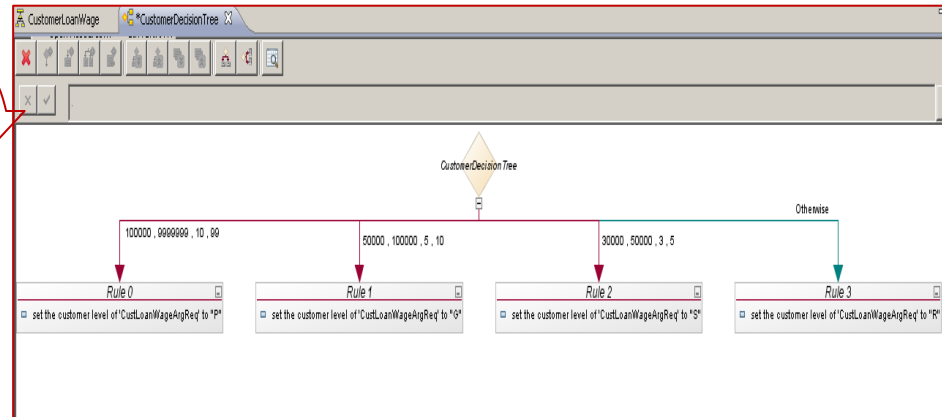
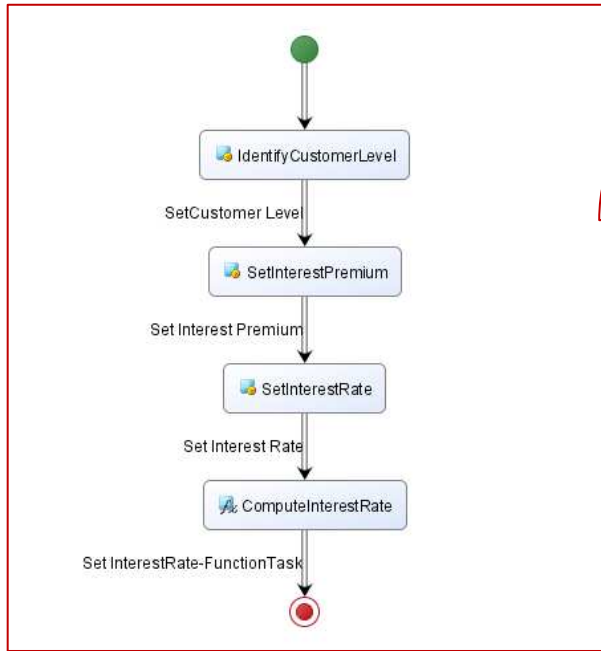
Solution Overview

- 1** *Decision Server Concepts*
- 2** *Business Events*
- 3** *Business Rules*

Solution and Demonstration

- 4** *CICS Business Events*
- 5** *Business Event Processing*
- 6** *Business Rule Processing*

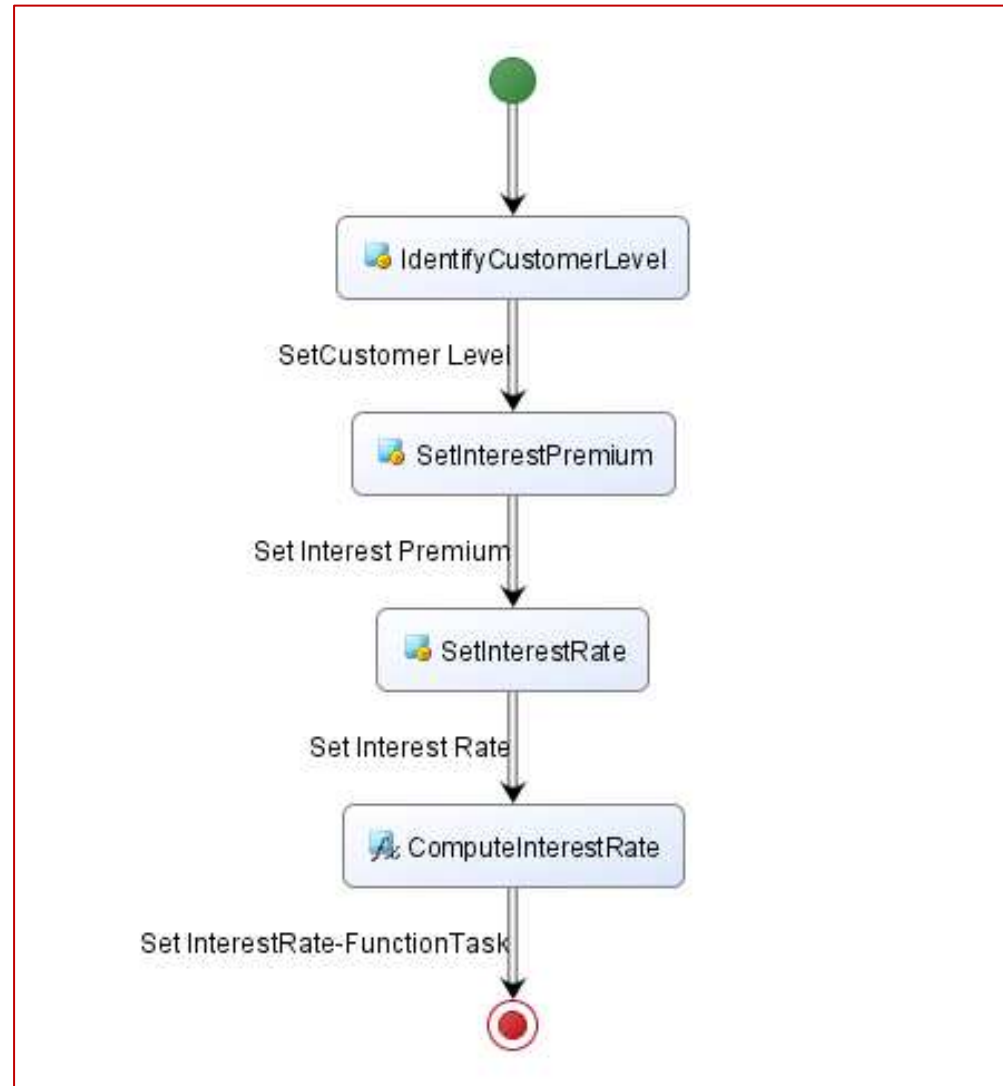




The screenshot shows the 'InterestPremiumDecisionTable' tool interface. It displays a table mapping customer levels to interest premium values. The table has two columns: 'Customer Level' and 'Set Interest Premium (In %)'.

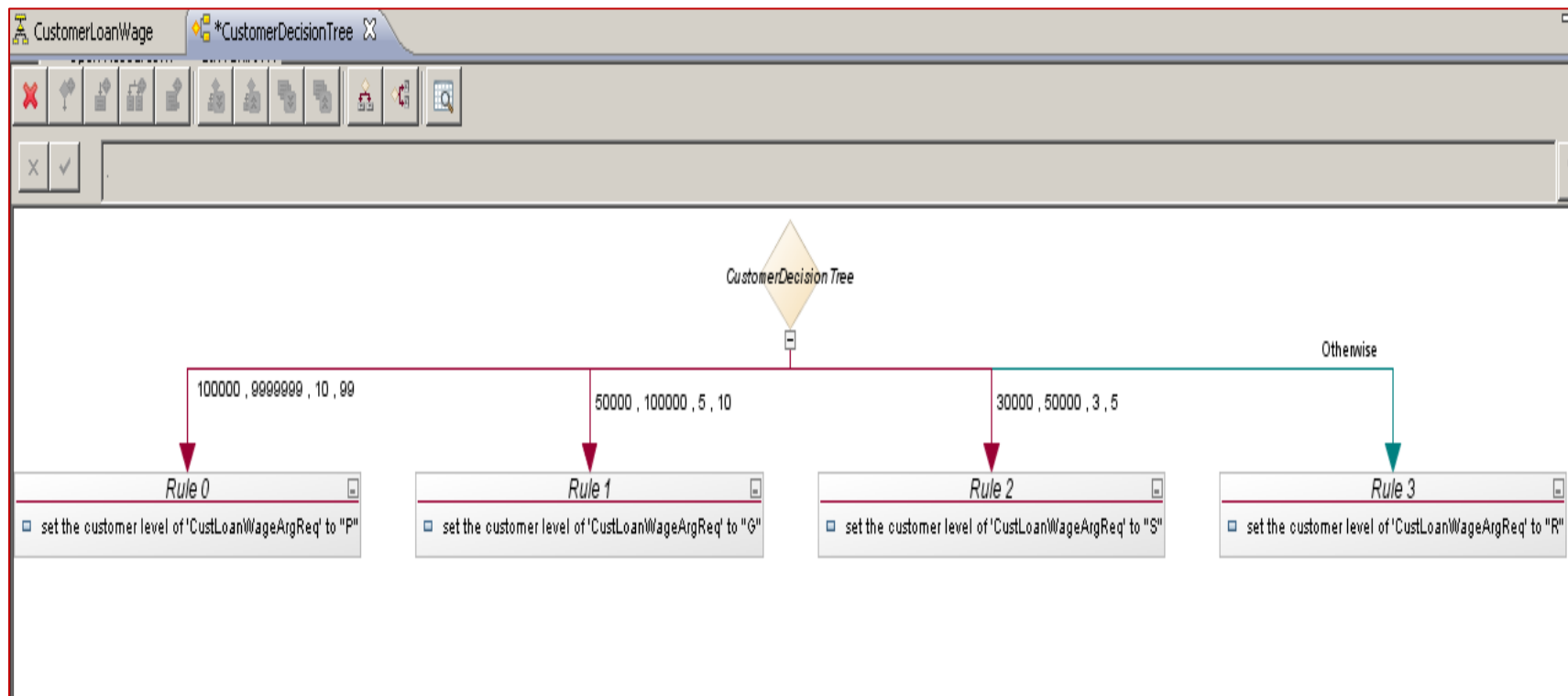
Customer Level	Set Interest Premium (In %)	
1	P	0
2	G	0.25
3	S	0.5
4	R	0.75
5		
6		
7		
8		
9		
10		
11		

Rule flow



Business Rule Type

-Identify Customer Level using a **Decision Tree**



Business Rule Type

- Set Interest Premium using a **Decision Table**

The screenshot shows the IBM Business Rule Editor interface. At the top, there are three tabs: 'CustomerLoanWage', 'CustomerDecisionTree', and '*InterestPremiumDecisionTable'. Below the tabs is a toolbar with various icons for editing rules. A text box contains the rule description: 'set the interest rate premium of 'CustLoanWageArgReq' to 0.75'. Below this is a decision table with two columns: 'Customer Level' and 'Set Interest Premium (In %)'.

	Customer Level	Set Interest Premium (In %)
1	P	0
2	G	0.25
3	S	0.5
4	R	0.75
5		
6		
7		
8		
9		
10		
11		

Business Rule Type

- Set Interest Rate using a **Decision Table**

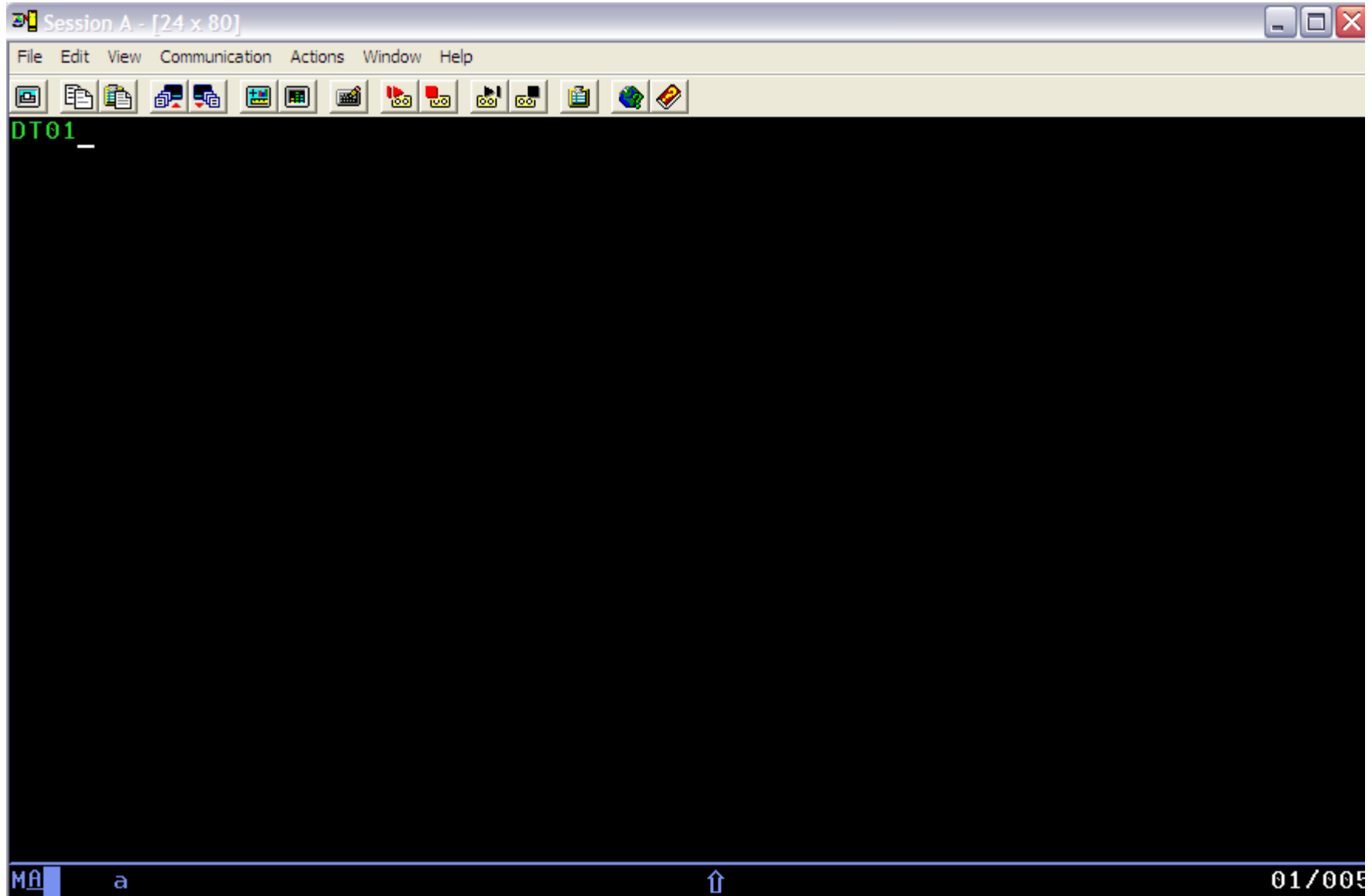
CustomerLoanWage CustomerDecisionTree InterestPremiumDecisionTable *InterestRateDecisionTable

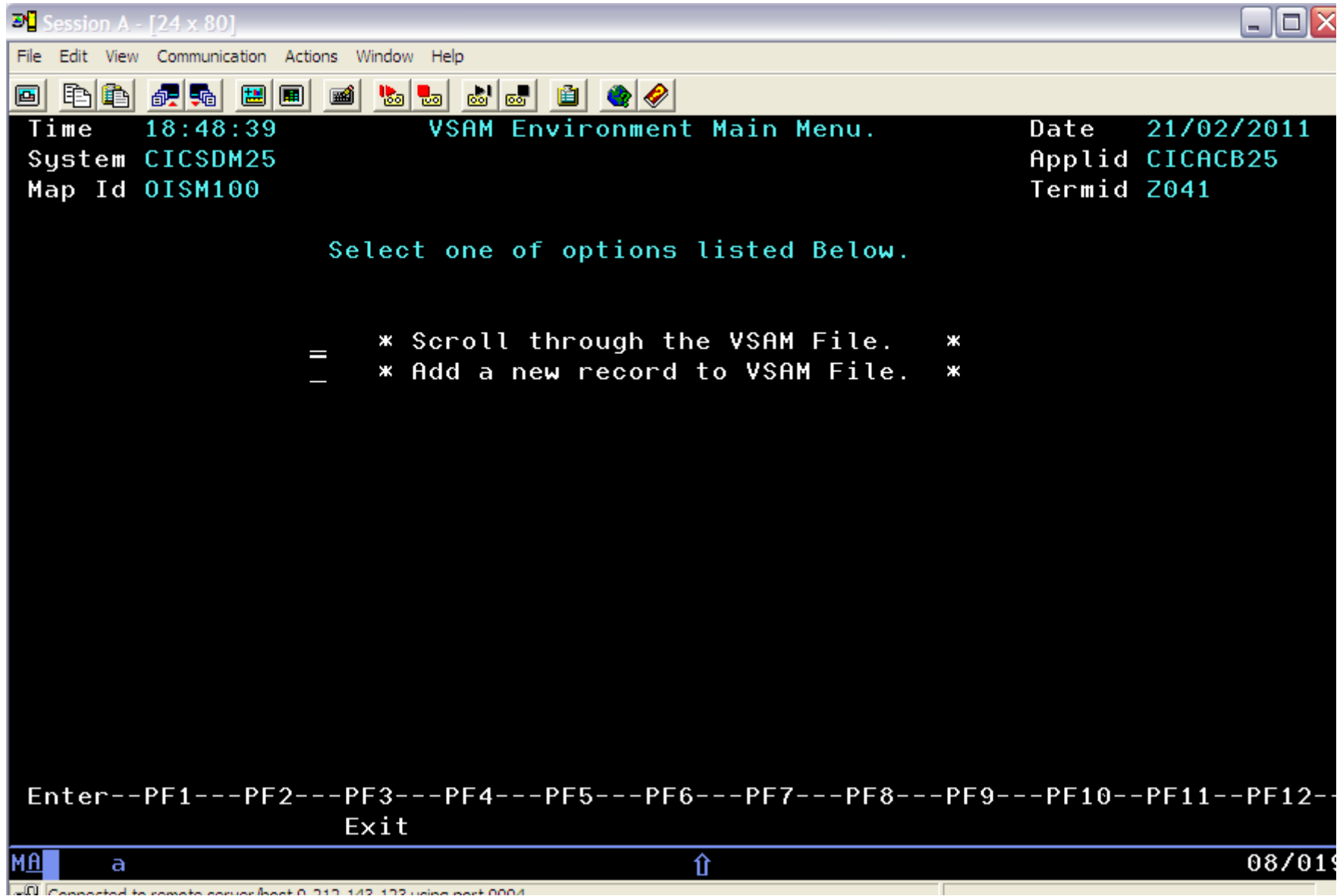
the principal of 'CustLoanWageArgReq' is at least <a number> and less than <a number>

	Credit Rating		Principal		Terms	Set Interest Rate
	min	max	min	max		
1	540	700	0	430,000	15	1.9
2					20	2
3					30	2.5
4					15	1.95
5	700	830	430,000	999,999	20	2.05
6					30	3
7					15	1
8					20	1.5
9	700	830	0	430,000	30	1.8
10					15	1
11					20	1.5
12					30	1.8
13						
14						
15						
16						
17						
18						

Test

Scenario





```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
Time 18:48:39 VSAM Environment Main Menu. Date 21/02/2011
System CICSDM25 Applid CICACB25
Map Id OISM100 Termid 2041

Select one of options listed Below.

/ * Scroll through the VSAM File. *
_ * Add a new record to VSAM File. *

Enter--PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
Exit

MA a 09/021
Connected to remote server/host 9.212.143.123 using port 9994
```

Session A - [24 x 80]

File Edit View Communication Actions Window Help

Time 18:52:10 VSAM Record Addition Screen. Date 21/02/2011
System CICSDM25 Applid CICACB25
Map Id OISM120 Termid Z041

Press the <ENTER> Key for the Record to be Added.

- > Record Number 32
- > Person Name IMPACT01
- > Description What new ?
- > Yearly Wage \$ 9999999

Enter --PF1--PF2--PF3--PF4--PF5--PF6--PF7--PF8--PF9--PF10--PF11--PF12--
Add Exit

MA a 12/037

Connected to remote server/host 9.212.143.123 using port 9994

Session A - [24 x 80]

File Edit View Communication Actions Window Help

Time 18:54:16 VSAM Record Addition Screen. Date 21/02/2011
System CICSDM25 Applid CICACB25
Map Id OISM110 Termid Z041

Press the <ENTER> Key for the Record to be Added.

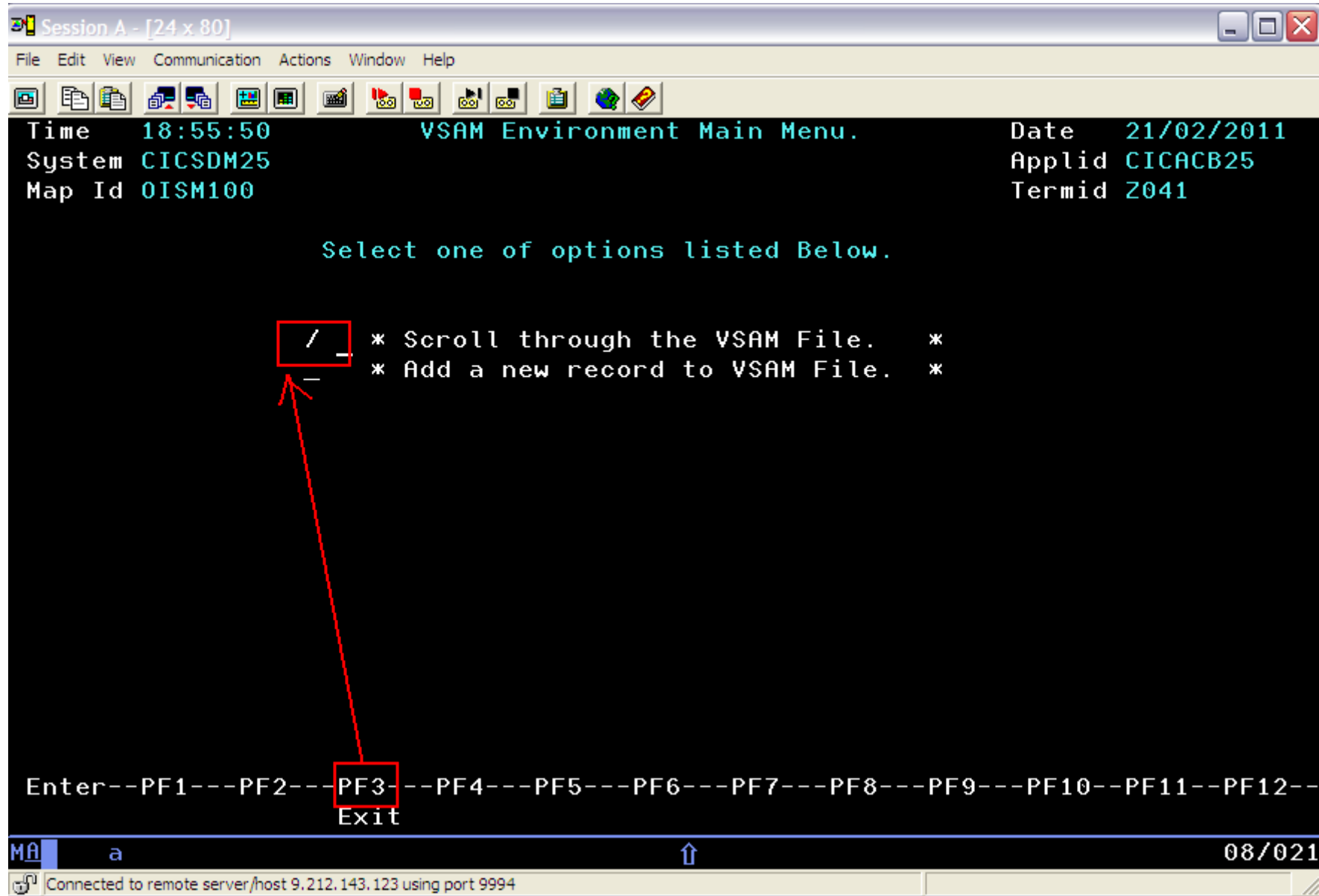
- > Record Number 32
- > Person Name IMPACT01
- > Description WHAT NEW ?
- > Yearly Wage \$ 99,999.99

OISA1020 - The Record Has Been Added To The File.

Enter--PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
Exit

MA a ↑ 01/001

Connected to remote server/host 9.212.143.123 using port 9994 Shift key pressed. Caps Lock is off. 3270 Numeric Lock is off.



Session A - [24 x 80]

File Edit View Communication Actions Window Help

Time 18:57:23 VSAM Scroll Display Screen. Date 21/02/2011
System CICSDM25 Applid CICACB25
Map Id OISM110 Termid 2041

Use PF7 and PF8 to move Up and Down and PF10 to Delete.

> Record Number 32
> Person Name IMPACT01
> Description WHAT NEW ?
> Yearly Wage \$ 99,999.99

Enter--PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
Exit Prev Next Delete

MA a 01/001

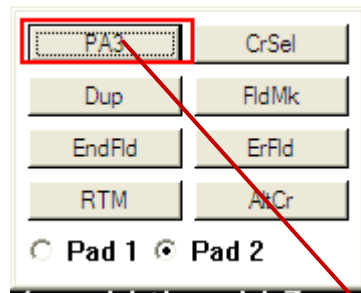
Connected to remote server/host 9.212.143.123 using port 9994

```
Time 15:28:18      VSAM Scroll Display Screen.      Date 11/03/2011
System CICSDM25    Applid CICACB25
Map Id OISM110     Termid Z042

Use PF7 and PF8 to move Up and Down and PF10 to Delete.

> Record Number      32
> Person Name        DEMO-AVARD-ASHAN-PAUL-YAO
> Description         TEST
> Yearly Wage $      50,000.00

OISA1010 - This Record Has Now Been Deleted.
Enter--PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
Exit          Prev Next      Delete
```



Session A - [24 x 80]

File Edit View Communication Actions Window Help

Session Manager Extended Menu Options Panel 21/02/2011 19:01:38

TN32 0980DEF7 F058971

Sel	Description	APPLID	Status	ACB	LOGMODE	NODE
1	TSO Session	TSOA	ACTIVE	ISZ009	D4B32792	ONLINE1
2	TSO Session No. 2	TSOB	AVAIL			
3	CICS Terminal Owning Region	CICSTOR1	UNAVAIL			
4	CICS Application Owning Reg	CICSAOR1	UNAVAIL			
5	CICS Application Owning Reg	CICSAOR2	UNAVAIL			
6	CICS Application Owning Reg	CICSAOR3	UNAVAIL			
7	CICSplex System Manager	CPSMCMAS	AVAIL			
8	CICSplex SM Web Interface	CPSMWUI	AVAIL			
9	CICS TS PoT / Demo - (25)	CICSADM25	ACTIVE	ISZ041	D4C32792	ONLINE1
10	NETVIEW 5.3	NETVIEW	AVAIL			
16	OMEGAVIEW	OM-VIEW	UNAVAIL			
17	OMEGAMON II for MFN	OM-MFN	AVAIL			
18	OMEGAMON II for SMS	OM-SMS	AVAIL			
19	OMEGAMON CUA for IMS	OM-IMS	AVAIL			

HARDCOPY = /H
Escaped from session 9 - CICSADM25
===>

ESC: Menu PA3 Bwd << Fwd >> Cut *c Paste *p Push /> Pull /.

MA a ↑ 22/007

Connected to remote server/host 9.212.143.123 using port 9994

Session A - [24 x 80]

File Edit View Communication Actions Window Help

Menu Utilities Compilers Options Status Help

z/OS Primary Option Menu

Option ==> **13.14**

0	Settings	Terminal and user parameters	User ID . : F058971
1	View	Display source data or listings	Time. . . : 19:13
2	Edit	Create or change source data	Terminal. : 3278
3	Utilities	Perform utility functions	Screen. . : 1
4	Foreground	Interactive language processing	Language. : ENGLISH
5	Batch	Submit job for language processing	Appl ID . : ISP
6	Command	Enter TSO or Workstation commands	TSO logon : ADTUSER
7	Dialog Test	Perform dialog testing	TSO prefix: F058971
P	IBM Products	IBM program products	System ID : ZT01
10	SCLM	SW Configuration Library Manager	MVS acct. : SYS0000
11	Workplace	ISPF Object/Action Workplace	Release . : ISPF 6.1
12	z/OS System	z/OS system programmer applications	
13	z/OS User	z/OS user applications	

Enter X to Terminate using log/list defaults

F1=Help F2=Split F3=Exit F7=Backward F8=Forward F9=Swap
 F10=Actions F12=Cancel

MA a ↑ 04/019

Connected to remote server/host 9.212.143.123 using port 9994

Session A - [24 x 80]

File Edit View Communication Actions Window Help

Display Filter View Print Options Help

SDSF DA ZT01 ZT01 PAG 0 CPU/L/Z 1/ 1/ 0 LINE 1-8 (8)

COMMAND INPUT ==> SCROLL ==> CSR

NP	JOBNAME	StepName	ProcStep	JobID	Owner	C	Pos	DP	Real	Paging	SIO
?	ZBCONN	CONNECT		JOB01069	CARRUTH	A	LO	FF	426	0.00	0.00
	ZBCONN1	*OMVSEX		STC01028	CARRUTH		LO	FF	402	0.00	0.00
	ZBCONN3	STEP1		STC00981	CARRUTH		LO	FF	407	0.00	0.00
	ZBSR11A	ZBSR11A	BBOPACR	STC01064	ZBACRU		NS	FE	78T	0.00	0.00
	ZBSR11AS	ZBSR11AS	BBOPASR	STC01067	ZBASRU		IN	F0	213T	0.00	0.00
	ZBCONN2	*OMVSEX		STC00983	CARRUTH		IN	E8	141T	0.00	0.00
	ZBSR11AA	ZBSR11AA	BBOPCRA	STC01066	ZBACRU		IN	F0	115T	0.00	0.00
	ZBDEMNA	ZBDEMNA	BBODAEMN	STC01065	ZBACRU		NS	FE	8166	0.00	0.00

F1=HELP F2=SPLIT F3=END F4=RETURN F5=IFIND F6=BOOK
 F7=UP F8=DOWN F9=SWAP F10=LEFT F11=RIGHT F12=RETRIEVE

MA a ↑ 06/003

Connected to remote server/host 9.212.143.123 using port 9994

Session A - [24 x 80]

File Edit View Communication Actions Window Help

Display Filter View Print Options Help

SDSF JOB DATA SET DISPLAY - JOB ZBCONN (JOB01069) NO DATA IN DATA SETS
 COMMAND INPUT ==> SCROLL ==> CSR

NP	DDNAME	StepName	ProcStep	DSID	Owner	C	Dest	Rec-Cnt	Page
	JESJCLIN			1	CARRUTH	H		14	
	JESMSG LG	JES2		2	CARRUTH	H		4	
	JESJCL	JES2		3	CARRUTH	H		15	
	JESYSMSG	JES2		4	CARRUTH	H		0	
	\$INTTEXT	JES2		5	CARRUTH	A		6	
	\$JOURNAL			6	CARRUTH	A		31	
s	STDOUT	CONNECT		101	CARRUTH	H		0	
	STDERR	CONNECT		102	CARRUTH	H		0	

F1=HELP F2=SPLIT F3=END F4=RETURN F5=IFIND F6=BOOK
 F7=UP F8=DOWN F9=SWAP F10=LEFT F11=RIGHT F12=RETRIEVE

MA a ↑ 12/003

Connected to remote server/host 9.212.143.123 using port 9994

```

Session A - [24 x 80]
File Edit View Communication Actions Window Help
-----
Display Filter View Print Options Help
-----
SDSF OUTPUT DISPLAY ZBCONN  JOB01069  DSID   101 LINE 52          COLS 02- 81
COMMAND INPUT ==>          SCROLL ==> CSR
BEER0558I: The technology connector SOAP Connector received the action executeDe
BEER0413E: A SOAP error occurred (The ruleset parameter customwage_customwagein
BEER0630I: Sending result: ÝSOAP Connector~ executeDecisionService
BEER0405I: A message was received from JMS with identifier ID:7d7b25143bd3a8664b
BEER0588I: The action listener received the following action: SendEmail
BEER0586I: Action listener found a matching connector
BEER0558I: The technology connector SMTP Module received the action SendEmail
BEER0405I: A message was received from JMS with identifier ID:33f0b0d684457edcf9
BEER0588I: The action listener received the following action: executeDecisionSer
BEER0586I: Action listener found a matching connector
BEER0558I: The technology connector SOAP Connector received the action executeDe
BEER0413E: A SOAP error occurred (The ruleset parameter customwage_customwagein
BEER0630I: Sending result: ÝSOAP Connector~ executeDecisionService
BEER0405I: A message was received from JMS with identifier ID:7879fa6bc03fdf2966
BEER0588I: The action listener received the following action: SendEmail
BEER0586I: Action listener found a matching connector
BEER0558I: The technology connector SMTP Module received the action SendEmail
***** BOTTOM OF DATA *****
F1=HELP      F2=SPLIT    F3=END      F4=RETURN   F5=IFIND    F6=BOOK
F7=UP        F8=DOWN     F9=SWAP     F10=LEFT   F11=RIGHT   F12=RETRIEVE
MA a                               ↑                               04/021
Connected to remote server/host 9.212.143.123 using port 9994
    
```

WebSphere. **Rule Execution Server**
 Console

Home
Explorer
Decision Warehouse
Diagnostics
Server Info

Explorer > RuleApps > RuleApp > Ruleset > Statistics

Navigator

- RuleApps (14)
- Decision Services (6)

Ruleset Statistics View

Refresh Reset

/BRMSDemoForImpact2011RuleApp/1.0/BRMSDemoForImpact2011/1.0

Server	Execution Unit Name	Statistics																											
zpcell - zpnode1 - zpsr001 default		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #e6f2ff;"> <th style="width: 30%;">Metric</th> <th style="width: 30%;">Ruleset Execution</th> <th style="width: 40%;">Task Execution</th> </tr> </thead> <tbody> <tr> <td>Count</td> <td>9</td> <td>Not Available</td> </tr> <tr> <td>Total Time (ms)</td> <td>18</td> <td>Not Available</td> </tr> <tr> <td>Average Time (ms)</td> <td>2.0</td> <td>Not Available</td> </tr> <tr> <td>Min. Time (ms)</td> <td>1</td> <td>Not Available</td> </tr> <tr> <td>Max. Time (ms)</td> <td>3</td> <td>Not Available</td> </tr> <tr> <td>Last Execution Time (ms)</td> <td>3</td> <td>Not Available</td> </tr> <tr> <td>First Execution Date</td> <td>Mar 10, 2011 6:48:33 PM GMT</td> <td>Not Available</td> </tr> <tr> <td>Last Execution Date</td> <td>Mar 11, 2011 2:28:18 PM GMT</td> <td>Not Available</td> </tr> </tbody> </table>	Metric	Ruleset Execution	Task Execution	Count	9	Not Available	Total Time (ms)	18	Not Available	Average Time (ms)	2.0	Not Available	Min. Time (ms)	1	Not Available	Max. Time (ms)	3	Not Available	Last Execution Time (ms)	3	Not Available	First Execution Date	Mar 10, 2011 6:48:33 PM GMT	Not Available	Last Execution Date	Mar 11, 2011 2:28:18 PM GMT	Not Available
	Metric	Ruleset Execution	Task Execution																										
	Count	9	Not Available																										
	Total Time (ms)	18	Not Available																										
	Average Time (ms)	2.0	Not Available																										
	Min. Time (ms)	1	Not Available																										
	Max. Time (ms)	3	Not Available																										
	Last Execution Time (ms)	3	Not Available																										
	First Execution Date	Mar 10, 2011 6:48:33 PM GMT	Not Available																										
	Last Execution Date	Mar 11, 2011 2:28:18 PM GMT	Not Available																										



System z and WebSphere Decision Server (WBE - ILOG BRMS) Integration Demo

Yao Assou to: Yao Assou, aksaiyed, avardh, Paul_P_Carruthers

Default custom expiration date: 10/03/2012

CICS Event

AvgBalance:	1000.0
BaseInterest:	3.0
CreditRating:	600
CustomerId:	DEMO-PAUL-ASHAN-AVARD-YAO
CustomerLevel:	SILVER
CustomerSince:	3
DeleteUserId:	F058971
InterestRate:	5.45
InterestRatePremium:	0.5
Principal:	500000.0
ProgramName:	OISA1010
Terms:	15

Questions





Lunch

Grazie धन्यवाद *Merci* ありがとうございます *Obrigado* 多谢
ITALIAN HINDI FRENCH JAPANESE BRAZILIAN PORTUGUESE SIMPLIFIED CHINESE

Thank You

多謝 Gracias Спасибо நன்றி ชอบรุณ *Danke* شكراً
TRADITIONAL CHINESE SPANISH RUSSIAN TAMIL THAI GERMAN ARABIC

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