



# Business Agility in Action.

Innovate. Transform. Grow

## Websphere Operational Decision Management

Greger Ottosson, Program Director, Product Management

03/20/2012

## Blueworks Live

### Business Process Manager

Process Center

Process Server

Management of all process components

### Operational Decision Management

Decision Center

Decision Server

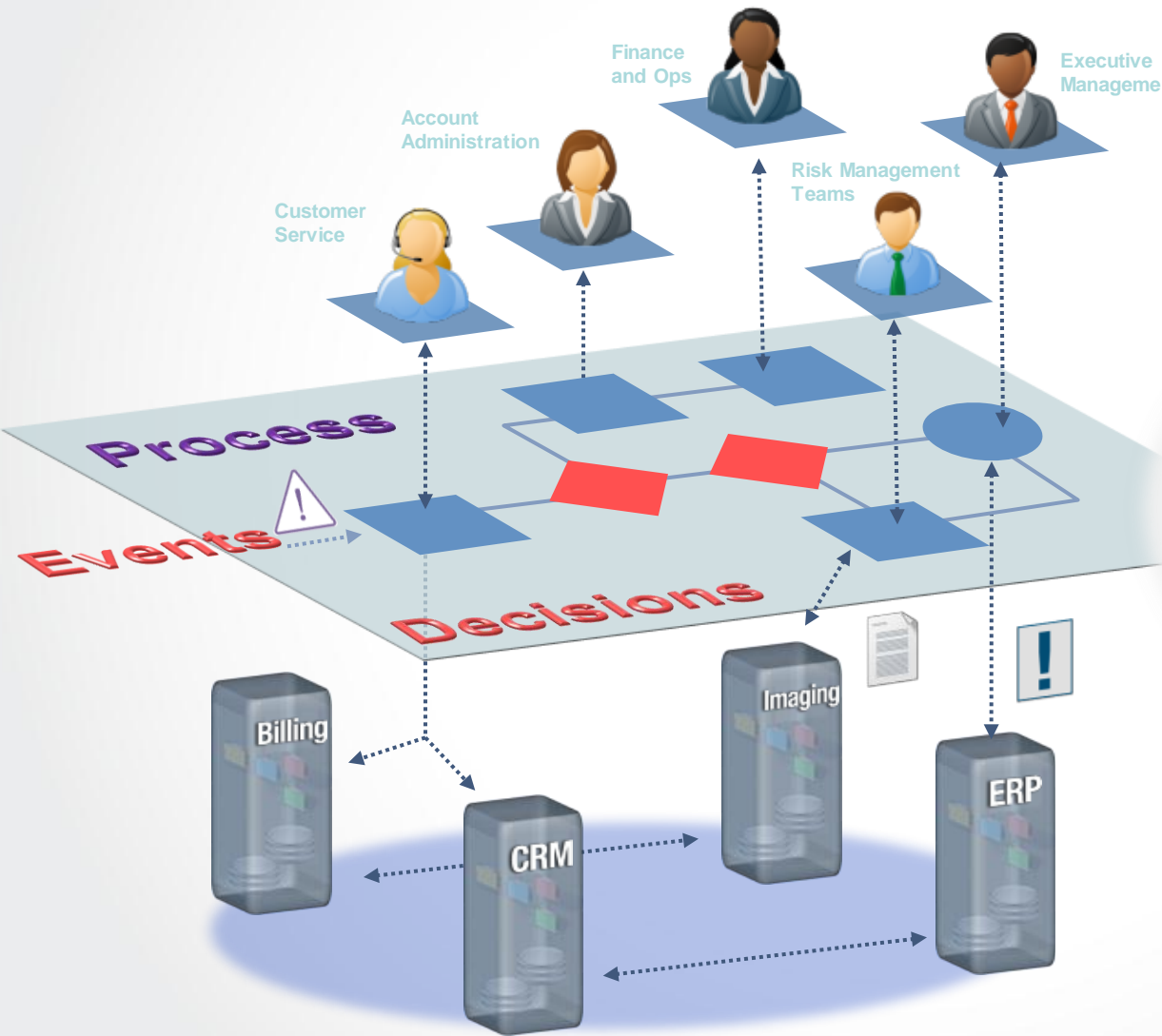
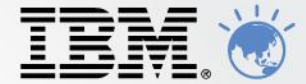
Management of business rules & events

## Business Monitor

Work together to deliver effective solutions for business operation improvement



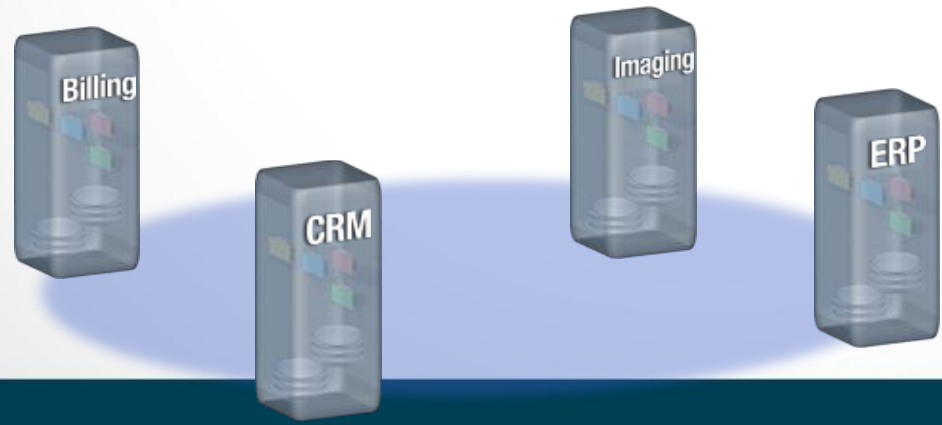
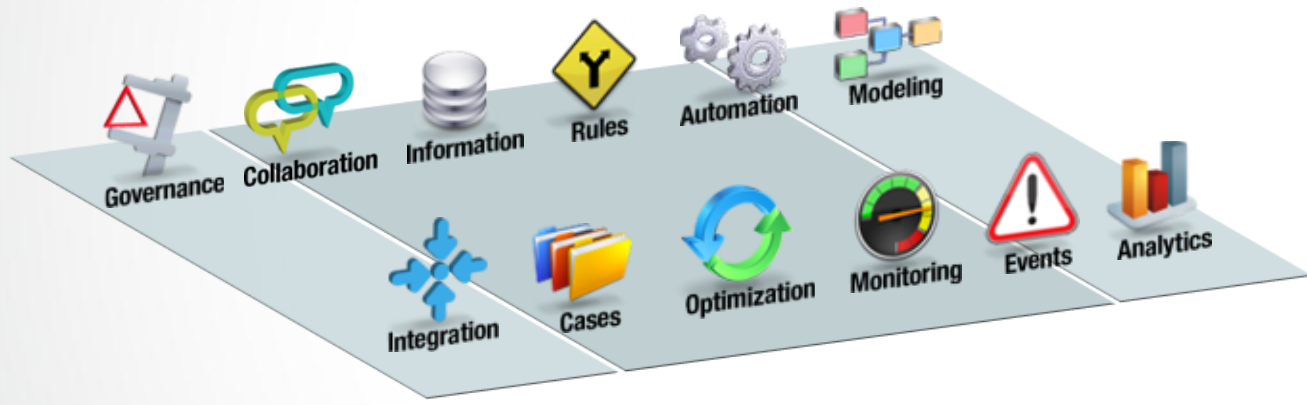
# Process & Decision Management Bring Order to Chaos





**What to do.**  
**How to do it.**  
**When to do it.**

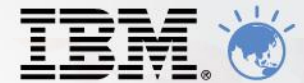


# Essential Process & Decision Management Capabilities



-  • Modeling
-  • Collaboration
-  • Automation
-  • Rules
-  • Events
-  • Information
-  • Cases
-  • Integration
-  • Monitoring
-  • Analytics
-  • Optimization
-  • Governance

# Transformation and Growth Require Better Decisions

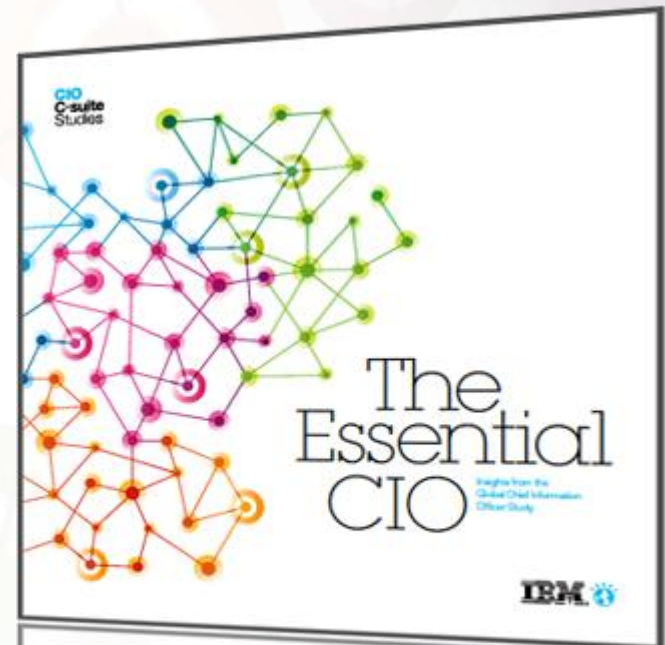


75%

of CIOs with mandates to transform the business are looking to “drive *better real time decisions.*”

72%

of CIOs with mandates to expand cross-enterprise growth are leading the charge to “drive *better real time decisions.*”



Source: IBM Global CIO Study 2011

# Why Better Decisions are Critical to Success



Identify opportunities to *increase profitability*



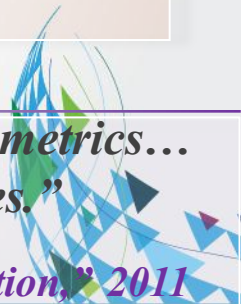
Enforce consistency to *ensure compliance*



Leverage information to *manage risk*

*“Decisions are what make strategy real and drive results and performance against metrics... decisions made about how to interact with partners, suppliers, customers, employees.”*

*James Taylor, “Becoming a Decision-centric Organization,” 2011*



# Why Better Decisions are Critical to Success



Identify opportunities to *increase profitability*

Personalized Product Recommendations

Promotions & Loyalty Programs

Automated Sales Commissioning



Enforce consistency to *ensure compliance*

Claims Validation

Payment Authorization

Eligibility Determination



Leverage information to *manage risk*

Underwriting and Credit

Border Control

Physical Infrastructure Monitoring



# If you don't design for change



Lines of business



IT

```
state void processLoanRequest(Borrower borrower, Loan loan) { // Processing request from  
    borrower.getName()); // Approve or reject the loan. checkLoanConditions(borrower, loan); // Display the verdict if  
    (loan.isApproved()) { System.out.println("==> Loan is approved -"); } else { System.out.println("==> Loan is rejected -(");  
    for (Object msg : loan.getMessages()) { System.out.println("==> Because " + msg); } } /** * Check conditions on the  
    borrower and the loan using hard-coded policies */ static void checkLoanConditions(Borrower borrower, Loan loan) { //  
    Check maximum amount if (loan.getAmount() > 1000000) { loan.addToMessages("The loan cannot exceed 1,000,000");  
    loan.reject("Maximum amount exceeded"); } // Check credit score if (borrower.getCreditScore() < 400) {  
    100 / borrower.getYearlyIncome() * 12 >= 1000000) { loan.addToMessages("debt-to-income too high  
    (borrower, loan); } if ((val >= 30) && (val < 45) && (borrower.getCreditScore() >= 0) && (loan.getCreditScore() < 400)) {  
    loan.addToMessages("debt-to-income too high compared to credit score"); loan.reject(); } if ((val >= 45) && (val < 50)  
    && (borrower.getCreditScore() >= 0) && (borrower.getCreditScore() < 600)) { loan.addToMessages("debt-to-income too high  
    compared to credit score"); loan.reject(); } if ((val >= 50) && (borrower.getCreditScore() >= 0) && (loan.getAmount() >
```

## Business Logic

Application code





# How Decision Management Works



Check customer eligibility

Data

*If driver age is less than 18 then set eligibility to NO*

Result

**Result = Yes**  
**Customer is Eligible to the "First Class Life Insurance"**

*If the driver has got more than 3 accidents this year then flag the driver as high risk*

Data

*Provide 5% discount to gold customers*

Result

**Insurance Estimated Price = US \$350**

Insurance application process

Estimate price



Call Center

Application / Process



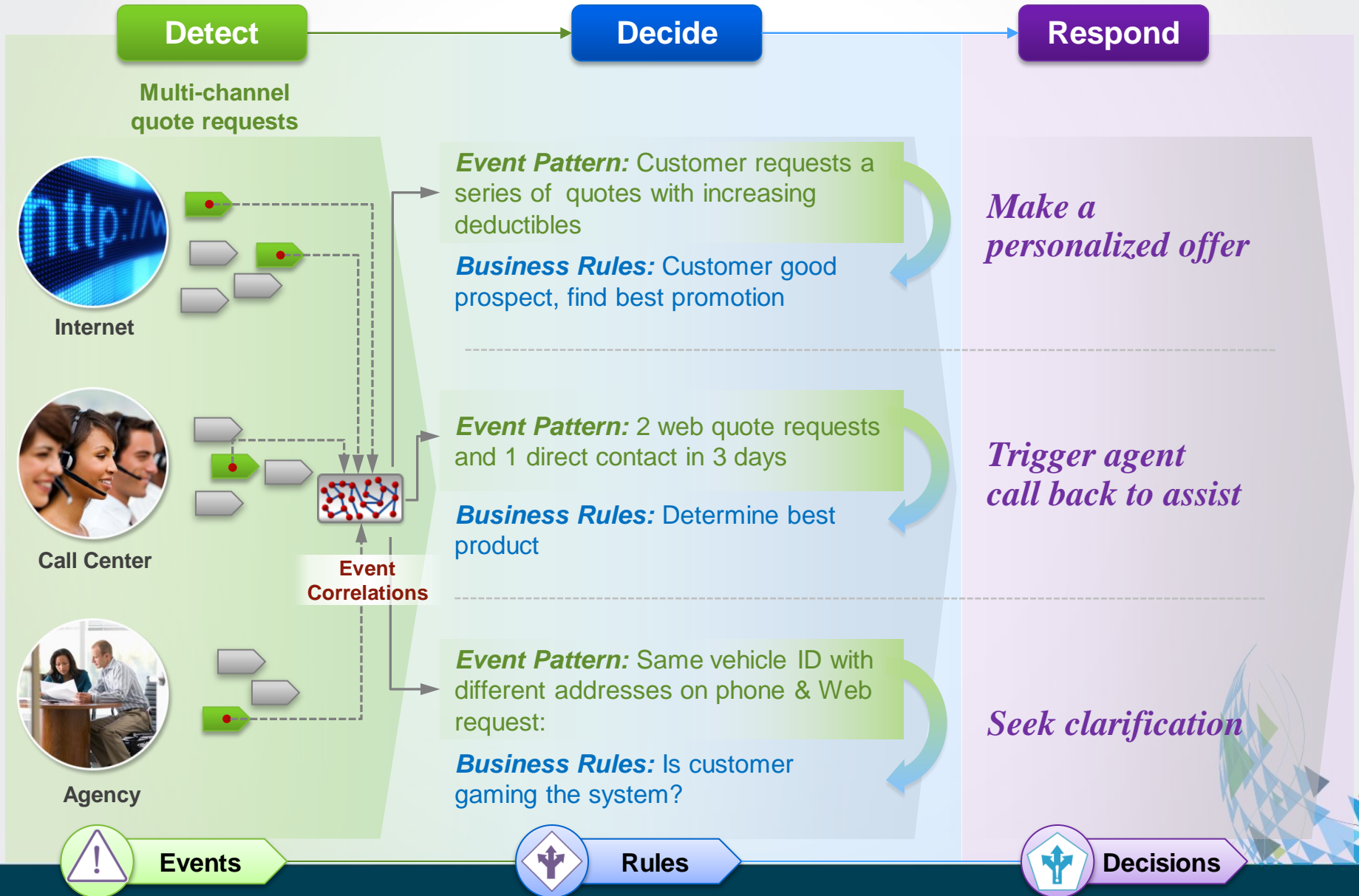
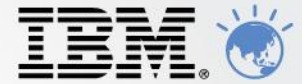
Rules



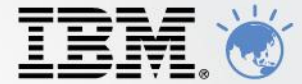
Decisions

Vehicle Value	Laffer	Deductible	Base Premium
1		\$250	\$ 43
2	\$ 0	\$500	\$ 39
3		\$1000	\$ 27
4		\$250	\$ 47
5	\$ 5,000	\$500	\$ 41
6		\$1000	\$ 32
7		\$250	\$ 51
8	\$ 10,000	\$500	\$ 44
9		\$1000	\$ 25
10		\$250	\$ 52
11	\$ 20,000	\$500	\$ 40
12		\$1000	\$ 40
13		\$250	\$ 62
14	\$ 30,000	\$500	\$ 59
15		\$1000	\$ 48
16		\$250	\$ 67
17	\$ 50,000	\$500	\$ 59
18		\$1000	\$ 55

# How Decision Management Works: Events



# What is a Business Rule ?



## Business Rule Examples

If the **Passenger** is a **gold frequent traveler**  
and the **flight distance** is more than 40000 miles  
and the **flight destination** is in Europe or Asia  
Then  
Add 10.000 points to the fidelity card of the **Passenger**

If the **Vehicle** is not an SUV  
and all the following conditions are true

- the **vehicle** is equipped with dual passenger airbag
- the **driver** has a good driver certificate
- the **driver** age is between 30 and 50
- the number of accident the **driver** was responsible for is 0

then  
Apply a **5% discount** on the premium coverage price

Business Decisions

Reasoning with

## Business Contexts

**Passenger**(age, address, gender, frequent traveler level, company)

**Vehicle** (VIN, Manufacturer, Data, Type, Brand)

**Order** (Amount, items)      **Promotion** (Code, amount, type, article)

**Flight** (FID, Airline, Depart, Destination, Distance, Date)

**Plant** (Location; production, Profitability)



# What is a Business Event ?



## Event Pattern Examples

If the *low temperature has been detected* more than **3 times** in the *last 5 minutes*  
and the number of occurrence the *outside air temperature has increased* in the *past 5 minutes* is zero  
then  
Raise a severity alarm  
Notify the maintenance team  
Reduce activity by 15%

If more than 2 *customer withdraws in an ATM* are done *in the same day*  
and the 2 ATMs are from 2 foreign countries  
then  
*Investigate possible fraud*  
Reduce to cash redraw max amount to 100\$

Correlation / Actions

Triggered by

## Event Triggers

RFID badge detected at the room entrance

Customer withdraw in an ATM

Debts threshold exceeded

Application rejected

Incoming call at the call center

Application form submitted

Low temperature detected



## A Quick Example...



*Imagine an auto insurance company has 2 basic requirements for a new project:*



1. Compute coverage pricing, in real-time
2. Approach prospects who have shopped around for quotes (web, call center, office)



# Business Rules vs Event Rules



**if**  
**the driver** has completed drivers ed course  
**and** the number of accidents **the driver** has been involved is 0  
**then**  
 add a 2 % discount to 'Auto Quote Response' , reason: "Good Driver Discount" ;

	Vehicle Value		Deductible	Base Premium
	Lower	Upper		
1			\$250	\$ 36
2	\$ 0	\$ 4,000	\$500	\$ 33
3			\$1000	\$ 23
4			\$250	\$ 43
5	\$ 4,000	\$ 10,000	\$500	\$ 39
6			\$1000	\$ 27
7			\$250	\$ 47
8	\$ 10,000	\$ 30,000	\$500	\$ 41
9			\$1000	\$ 32
10			\$250	\$ 52
11	\$ 30,000	\$ 60,000	\$500	\$ 49
12			\$1000	\$ 40
13			\$250	\$ 62
14	\$ 60,000	\$ 100,000	\$500	\$ 59
15			\$1000	\$ 48

Business Rules

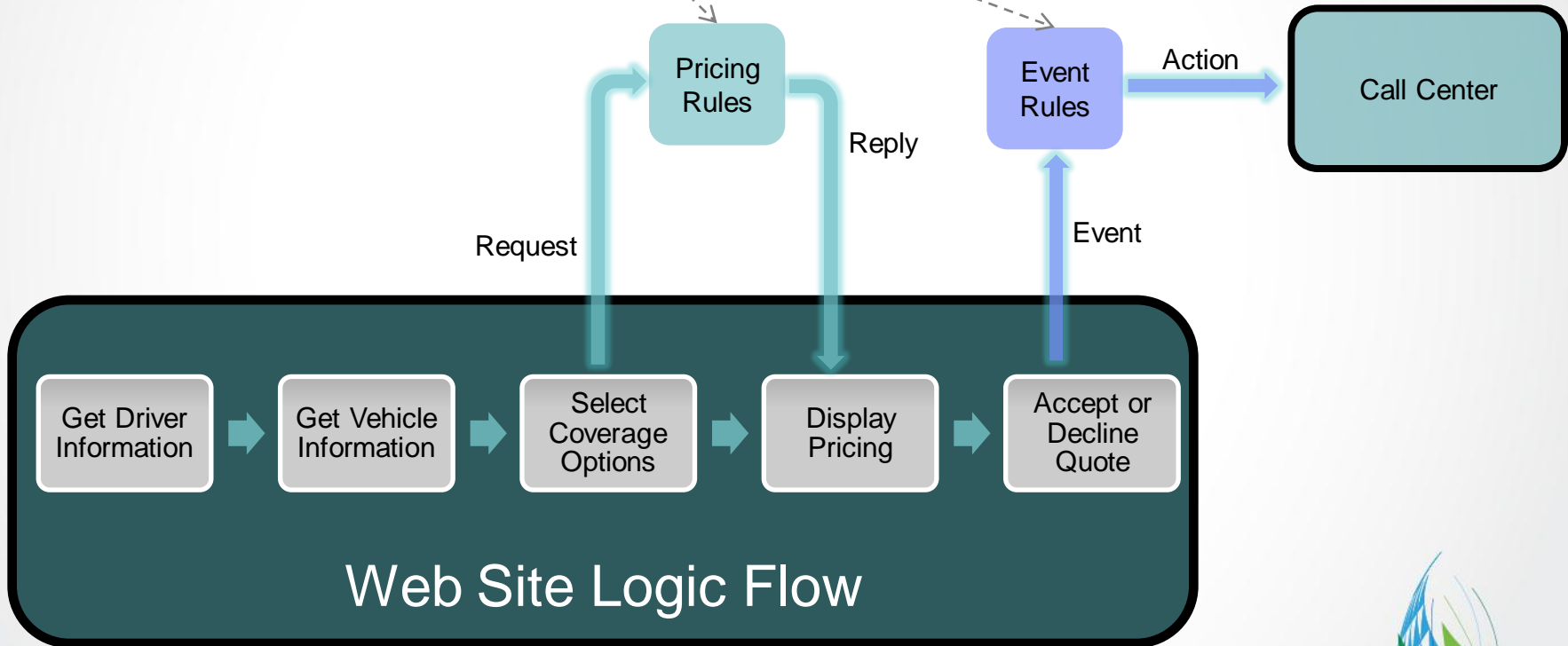
**if**  
 past occurrences of **web quote rejected** within 1 minute is at least 3  
**and**  
 past occurrences of **customer accepts web quote** within 1 minute is 0  
**then**  
 follow up quote request ;  
 refer customer to call center ;

Event Rule



# Externalized Decisions

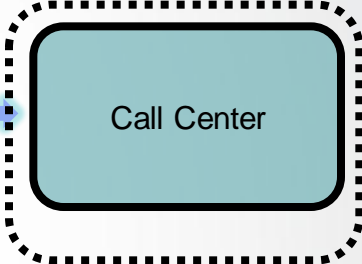
Operational Decision



# Improved Governance & Ownership



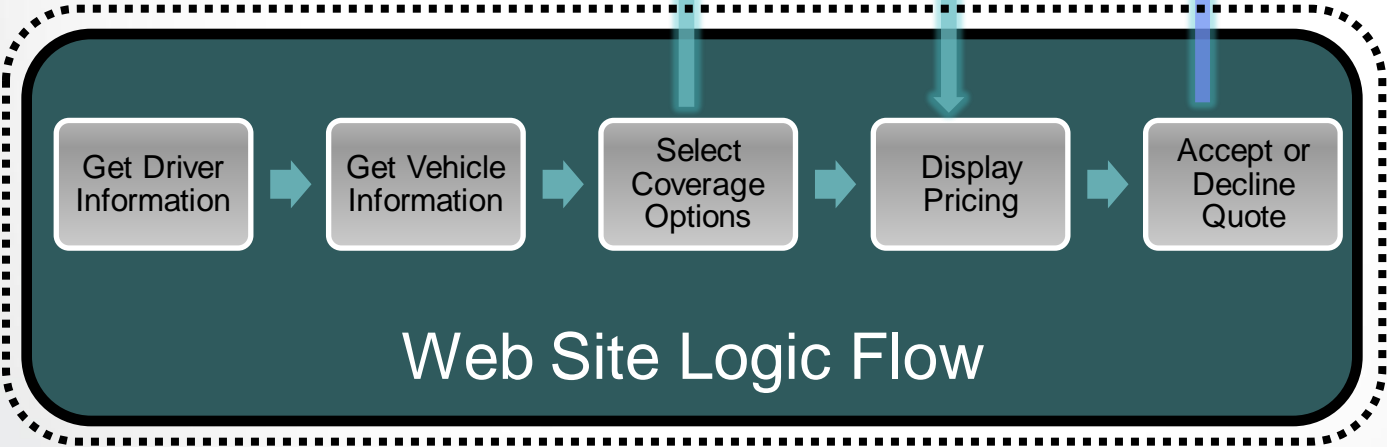
Rule Author



Call Center Agent



Developer



Web Site Logic Flow



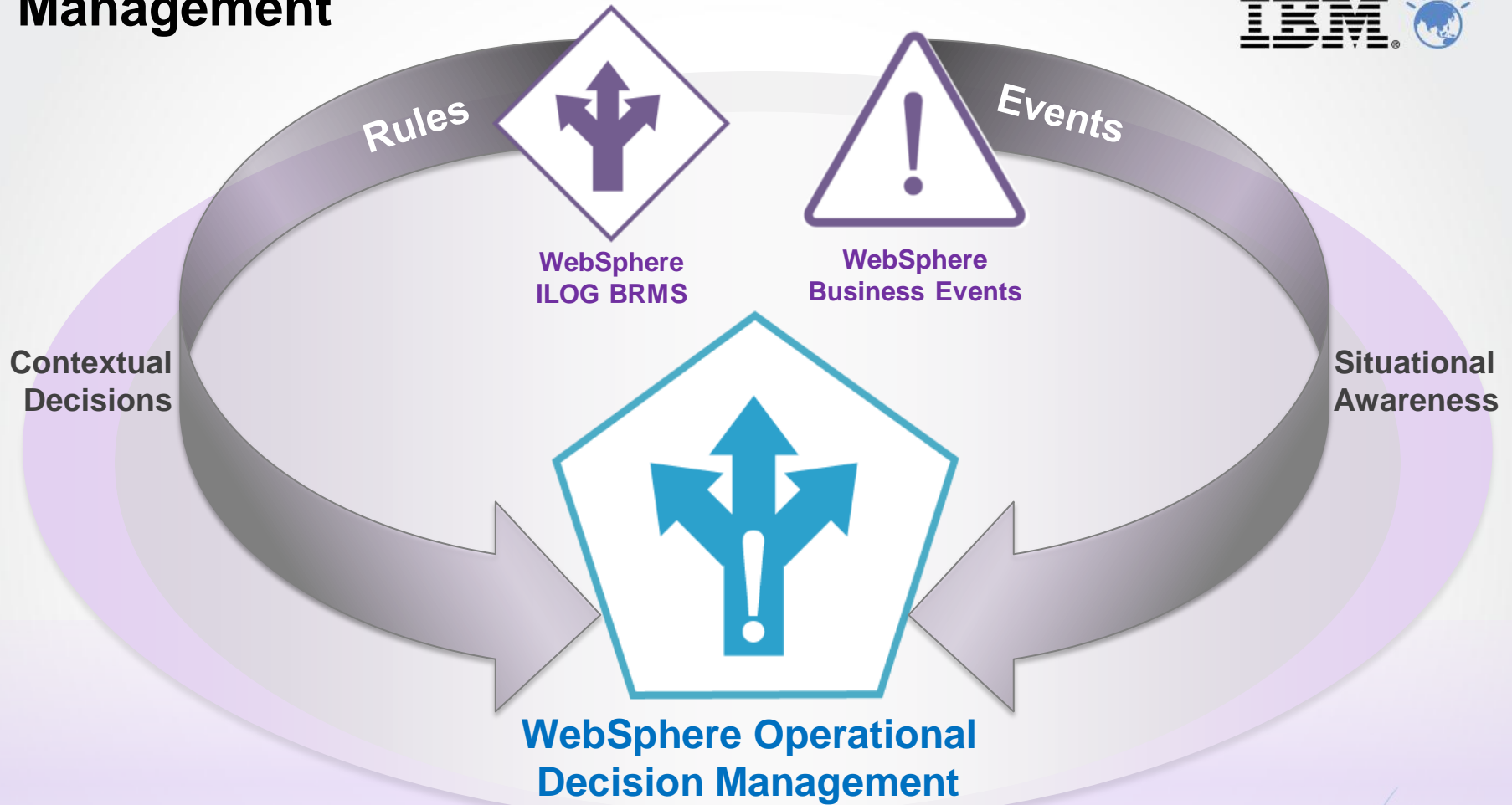
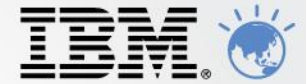




Click on the play buttons to view each video



# Introducing WebSphere Operational Decision Management



*Your business decisions.*

Made by your business *experts*.

Delivered in *real-time* by technology.

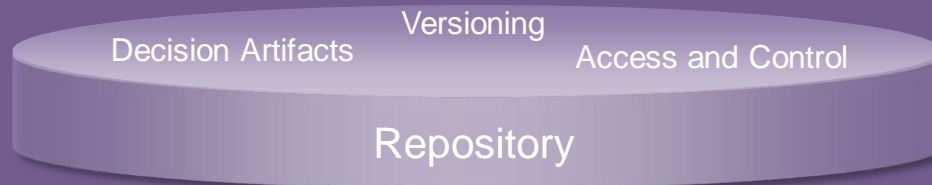


# WebSphere Operational Decision Management Components



## WebSphere Operational Decision Management

### WebSphere Decision Center



### WebSphere Decision Server

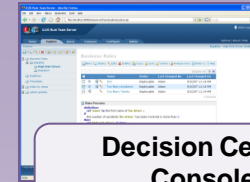
Rule Execution

Event Execution

Decision Monitoring

Connectors

### Management



**Decision Center Console**

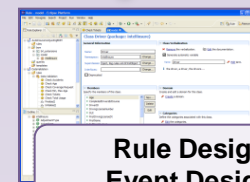


**Rule Solutions for Office**



**Decision Center for Business Space**

### Design



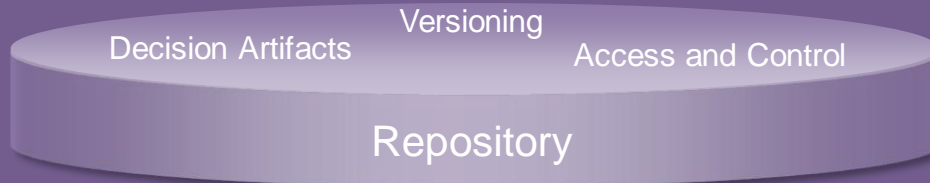
**Rule Designer Event Designer**

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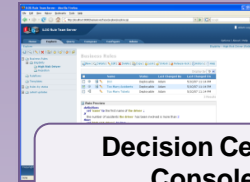
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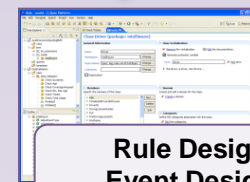


**Rule Solutions for Office**



**Decision Center for Business Space**

### Design



**Rule Designer Event Designer**

# Rule and Event Designer

*One Eclipse instance, 2 design perspectives, one user experience*

**Event Perspective**

	Lower	Upper	Deductible	Base Premium
1			\$250	\$ 120
2	\$ 0	\$ 5,500	\$500	\$ 110
3			\$1000	\$ 100
4	\$ 5,500	\$ 11,000	\$250	\$ 130
5			\$500	\$ 120
6			\$1000	\$ 120
7	\$ 11,000	\$ 20,000	\$250	\$ 110
8			\$500	\$ 150
9			\$1000	\$ 145
10			\$1000	\$ 140
11			\$250	\$ 160
12			\$500	\$ 150
13			\$1000	\$ 140
14			\$500	\$ 170
15			\$250	\$ 160
16			\$500	\$ 150
17	\$ 55,000	\$ 100,000	\$250	\$ 180
18			\$500	\$ 180
19			\$1000	\$ 165

**Rule Perspective**

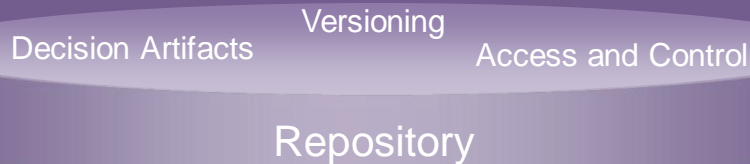


# WebSphere Operational Decision Management Components



## WebSphere Operational Decision Management

### WebSphere Decision Center



### WebSphere Decision Server

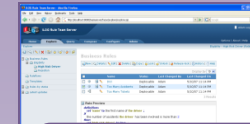
Rule Execution

Event Execution

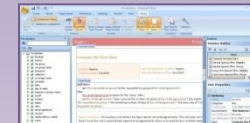
Decision Monitoring

Connectors

### Management



**Decision Center Console**

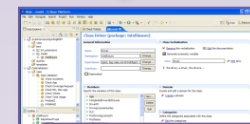


**Rule Solutions for Office**



**Decision Center for Business Space**

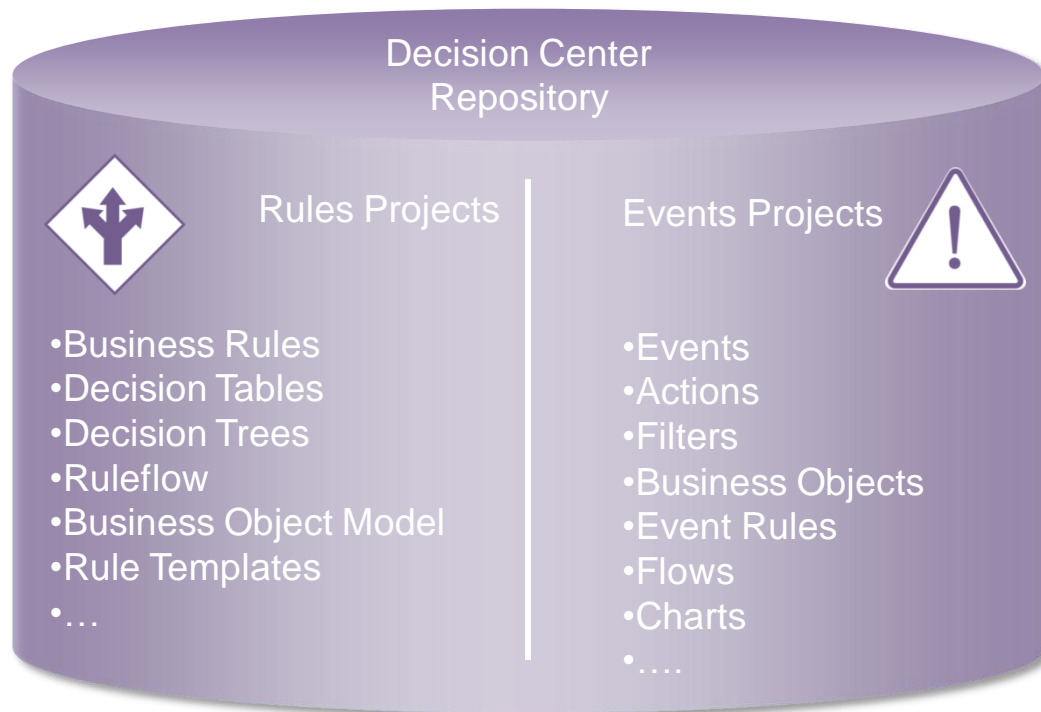
### Design



**Rule Designer Event Designer**

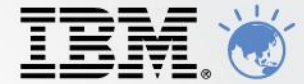
# Decision Center Repository

*The collaborative work component*



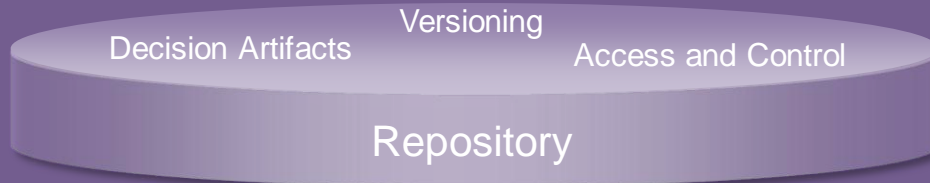
- Decision artifacts are stored in projects
  - Event projects
  - Rule projects
- Event projects & rule projects are independent from each other
- Concepts are identical
  - Access restriction
  - Navigation
  - Sharing

# WebSphere Operational Decision Management Components



## WebSphere Operational Decision Management

### WebSphere Decision Center



### WebSphere Decision Server

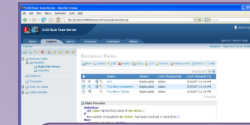
Rule Execution

Event Execution

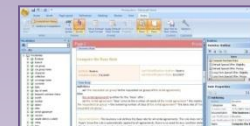
Decision Monitoring

Connectors

### Management



**Decision Center Console**

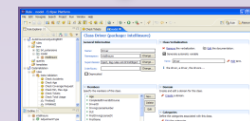


**Rule Solutions for Office**



**Decision Center for Business Space**

### Design

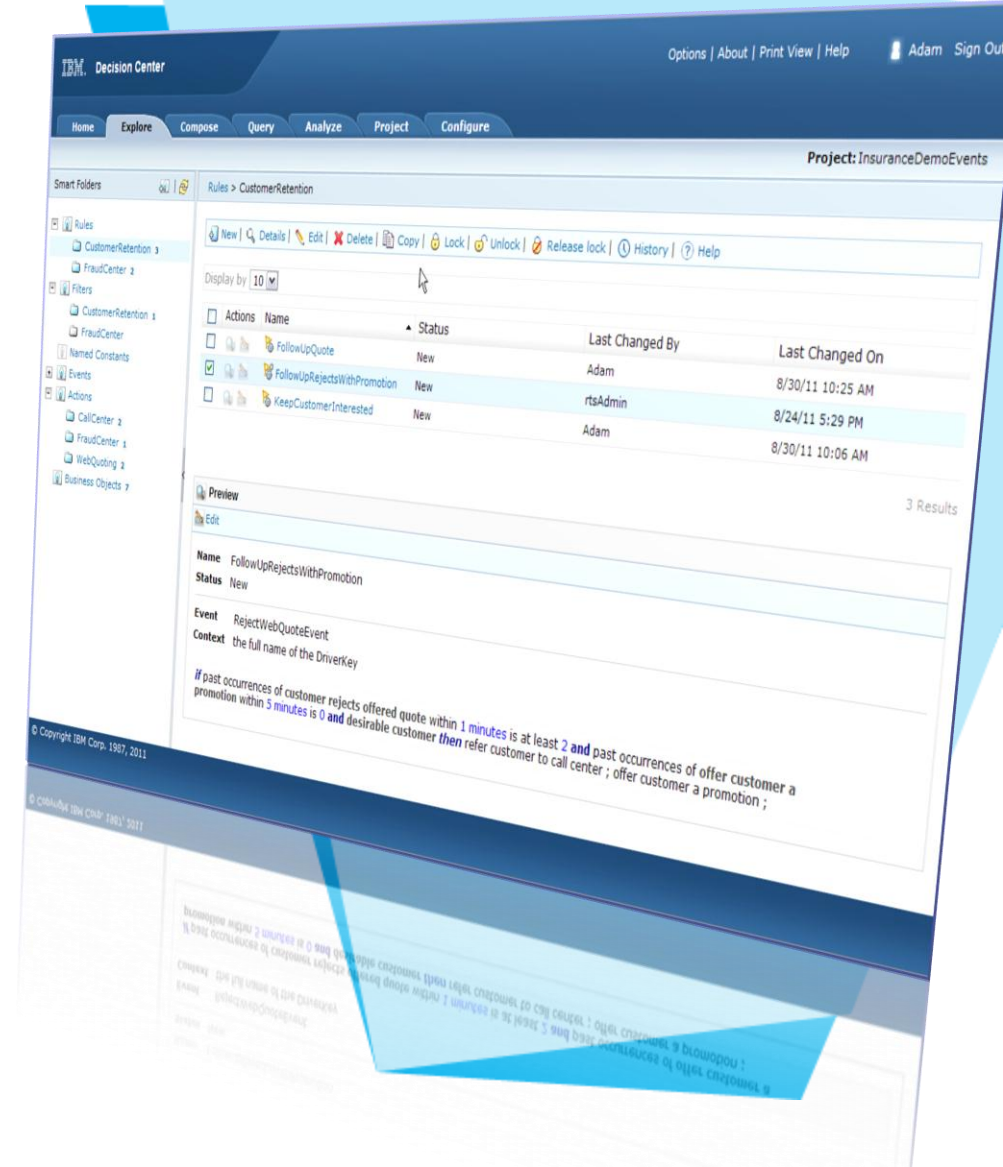


**Rule Designer Event Designer**



# Web-based Business Policy Management Environment Decision Center Console

- Line Of Business
- Analysts
- Policy Manager



# Decision Center Console

## ■ Authoring

- Plain English, Decision Table, Decision Tree
- Quick edit mode using MS Office
- Templates

## ■ Managing

- Queries
- Smart Views
- Version Management
- Baseline

## ■ Validating

- Syntactic Check
- Semantic Check
- Semantic Queries



## ■ Testing / Simulating

- Decision Validation Services

## ■ Auditing

- Version Management
- Baseline
- Query-based reporting

## ■ Deploying

- Query base Extraction
- Rule service management

## ■ Administration and configuration

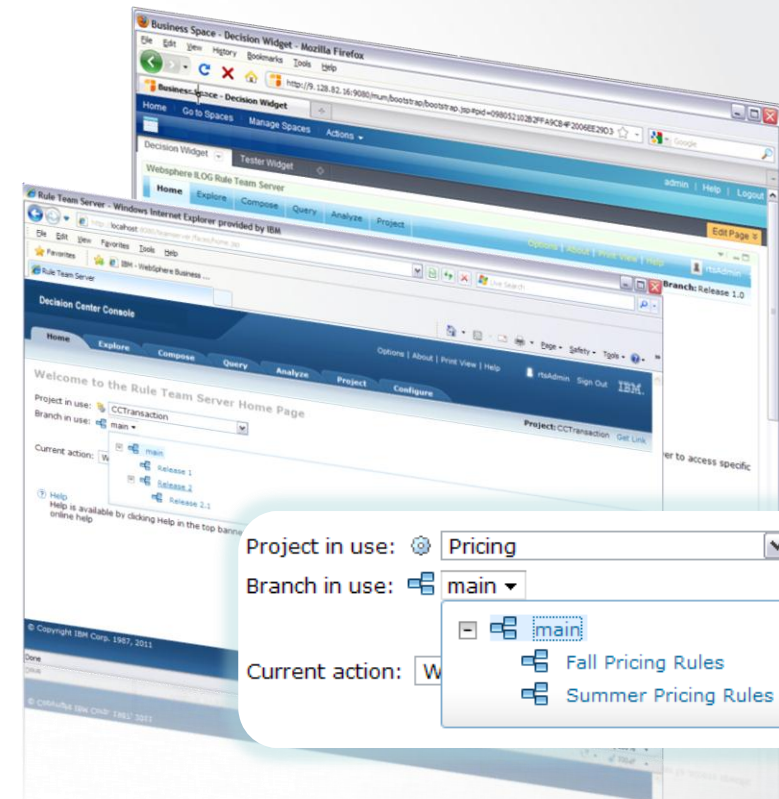
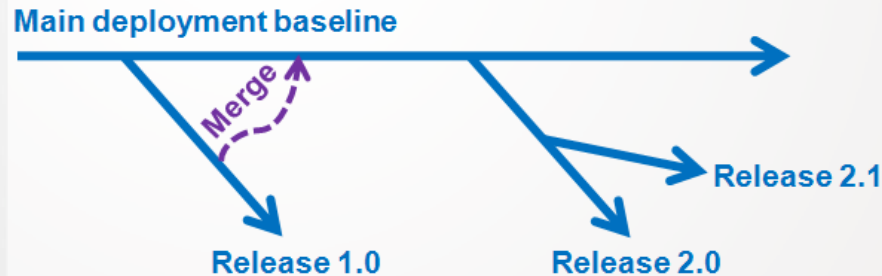
- Authorization policies
- Rule Service
- Display Options



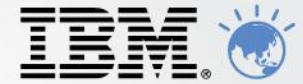
# Multiple Release Management



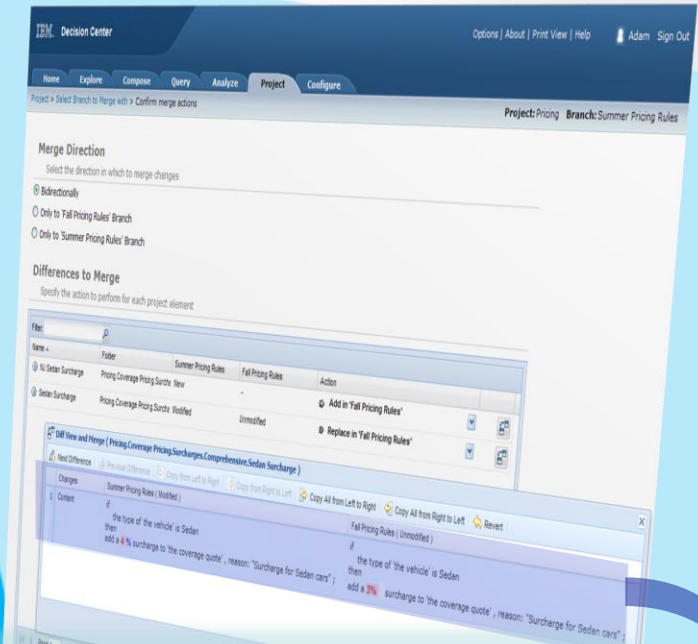
- Enable business users to make changes to a deployed rule application without interfering with work they are doing on an upcoming release
- Merge and diff between releases



# Multiple Release Management Visual Support



- Detailed side-by-side graphical difference highlights between releases
- Multi directional merge from one release to another



Previous Difference | Copy from Left to Right | Copy from Right to Left | **Copy All from Left to Right** | Copy All from Right to Left

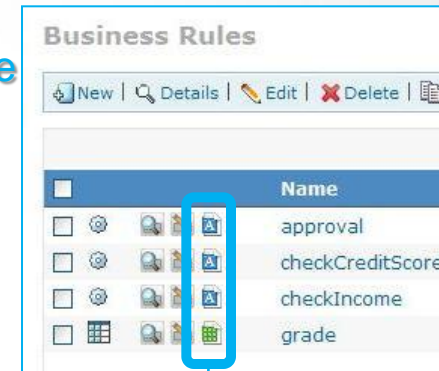
Summer Pricing Rules ( Modified )	Fall Pricing Rules ( Unmodified )
<pre>if   the type of the vehicle' is Sedan then   add a 4% surcharge to 'the coverage quote' , reason: "Surcharge for Sedan cars" ;</pre>	<pre>if   the type of 'the vehicle' is Sedan then   add a 3% surcharge to 'the coverage</pre>



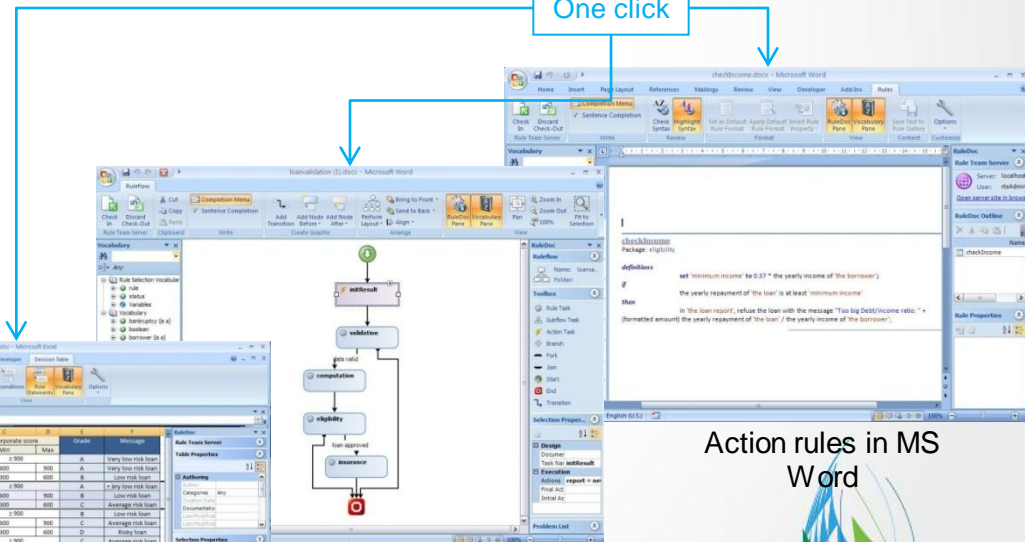
# Decision Center Console



Direct MS edit mode



One click



Action rules in MS Word

Rule Flow in MS Word

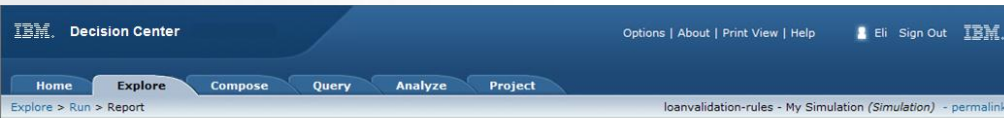
Decision Table in MS Excel

- Direct access to MS editing
  - Action Rules and ruleflow edition thru MS Word
  - Decision Tables edition thru MS Excel
- Lock of edited elements
- Automatic synchronization



# Decision Center Console

Champion and challenger capabilities



**Min Income to .27**

Rerun Simulation | Edit Simulation | **Compare with...**

**Simulation as of this run** My Simulation - Version: 1.0  
**Scenarios used for this run** loanvalidation-simulation.xls

**Run Date** Jan 14, 2010 11:40:18 AM EST  
**Run By** Eli

**Rules tested**  
**Starting Ruleflow**

**Server**

---

**Summary**  
**Number of Scenar**  
**Success Rate**

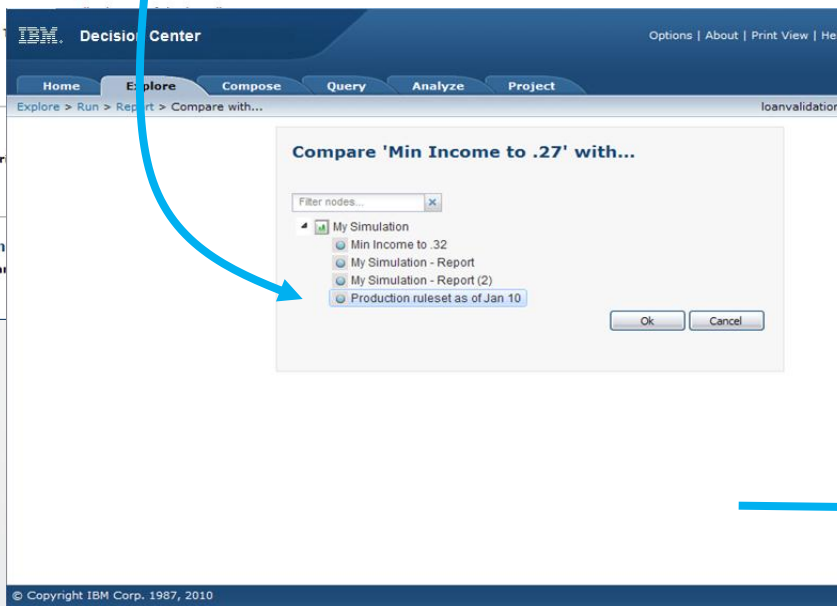
---

**Key Performan**  
**Percentage of loa**

Side by side comparison

Today

Tomorrow



**Simulation as of this run** Last year history - all rules - Version: 1.0  
**Scenarios used for this run** Historical Data: Last Year

**Run Date** May 20, 2010 4:24:21 PM CEST  
**Run By** rtsAdmin  
**Rules tested** All rules as of the baseline Current  
**Starting Ruleflow Task** Default

**Server** Insdemo

---

**Summary**  
**Number of scenarios** 400  
**Success Rate** 100%

**Key Performance Indicators**  
**Insurance KPI**

**Global eligibility results**

Accepted 77.5% Rejected 22.5%

**Eligibility results by states**

State	Accepted	Rejected
CA	81.8%	
NJ	75.0%	
MA	77.8%	

**Simulation as of this run** Last year history - all rules - Version: 1.0  
**Scenarios used for this run** Historical Data: Last Year

**Run Date** May 5, 2010 5:57:18 PM CEST  
**Run By** Adam  
**Rules tested** All rules as of the baseline Current  
**Starting Ruleflow Task** Default

**Server** Insdemo

---

**Summary**  
**Number of scenarios** 400  
**Success Rate** 100%

**Key Performance Indicators**  
**Insurance KPI**

**Global eligibility results**

Accepted 82.5% Rejected 17.5%

**Eligibility results by states**

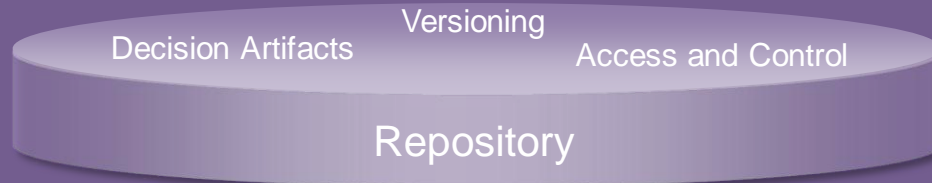
State	Accepted	Rejected
CA	90.9%	
NJ	80.0%	
MA	77.8%	

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## WebSphere Operational Decision Management

### WebSphere Decision Center



### WebSphere Decision Server

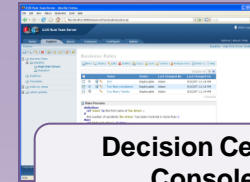
Rule Execution

Event Execution

Decision Monitoring

Connectors

### Management



**Decision Center Console**

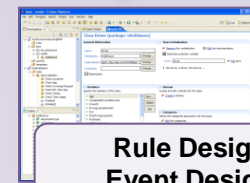


**Rule Solutions for Office**



**Decision Center for Business Space**

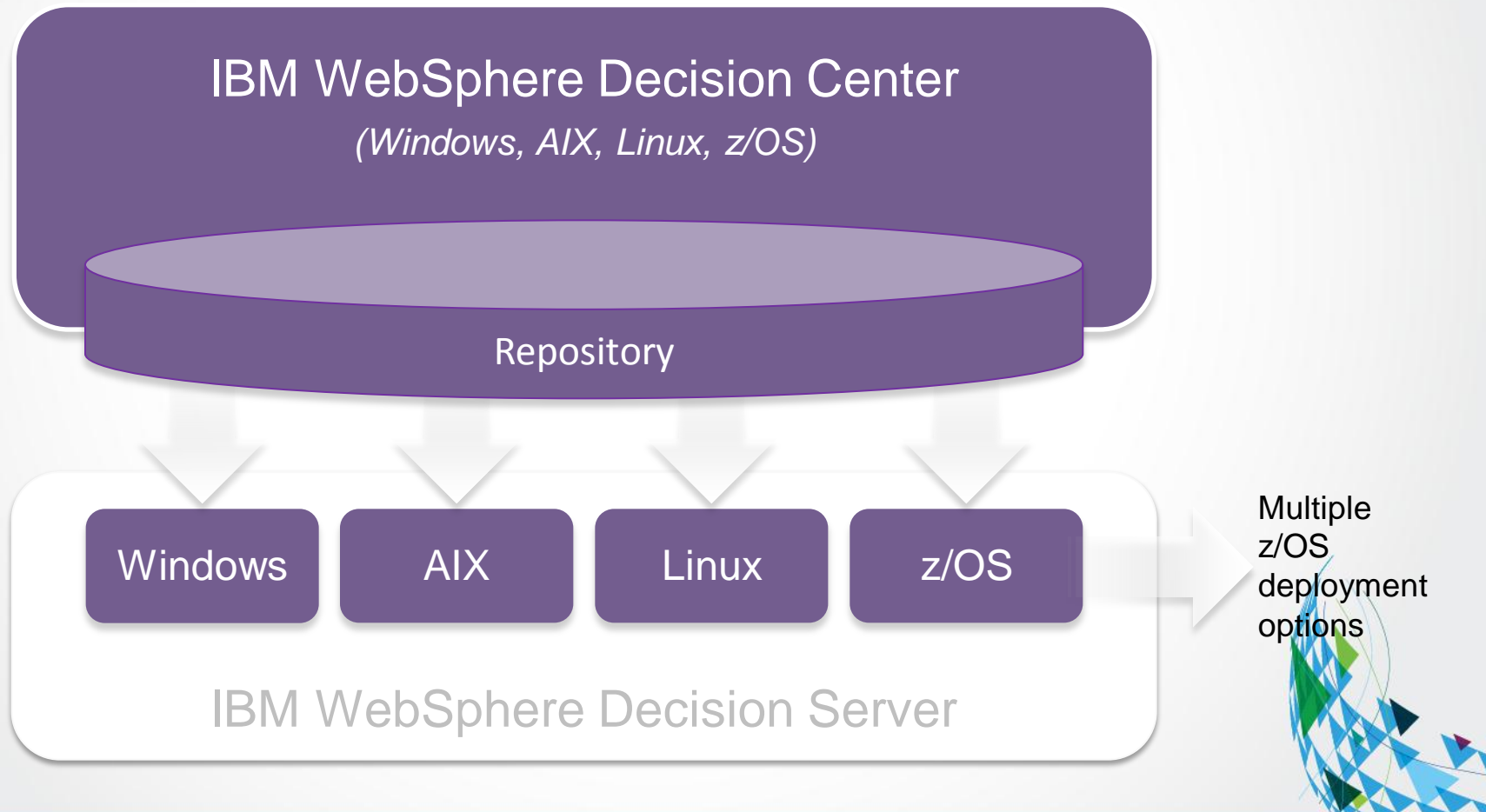
### Design



**Rule Designer Event Designer**

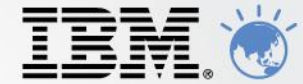
## Runtime support

Leverage a wide range of platforms to meet the varying needs of enterprise architectures





# Decision Warehouse



WebSphere Rule Execution Server Console

resAdmin Sign Out IBM

Home Explorer Decision Warehouse Diagnostics Server Info About Print View Help

Decision Warehouse

Select a task: Search Decisions Persistence Properties Clear Decisions

### Search Decisions

Enter information in one or more fields to find stored decisions:

Executed ruleset path:

Decision ID:

Rules Fired:

Tasks Executed:

Input parameters:

Output parameters:

From date:

From time: 00:00:00

To date:

To time: 00:00:00

Search Clear

178 Decision(s) found Display by 10

Decision ID	Date	Ruleset Version	Number of rules fired	Decision Trace	Processing Time (ms)
b7c4ed78-f6d3-47ff-98c7-01ff911217ff	2009-04-27 14:56:19	/joanvalidationrulesruleapp/1.0/joanvalidationrules/1.0.7	7	View Decision details	0
624223f1-d5f5-4305-9126-f07e332efbfc	2009-04-27 14:56:19	/joanvalidationrulesruleapp/1.0/joanvalidationrules/1.0.7	7	View Decision details	0
fde9ea8a-5c06-4140-bbc4-d03e5690c507	2009-04-27 14:56:19	/joanvalidationrulesruleapp/1.0/joanvalidationrules/1.0.7	7	View Decision details	0
ce7bfe3b-68ef-410a-a96f-dbf3b8f8e861	2009-04-27 14:56:19	/joanvalidationrulesruleapp/1.0/joanvalidationrules/1.0.5	5	View Decision details	15
87e95fd3-bf89-4031-a50c-d6590d2170e8	2009-04-27 14:56:19	/joanvalidationrulesruleapp/1.0/joanvalidationrules/1.0.7	7	View Decision details	15
51050759-8fa3-4e43-8593-7d4b22be697	2009-04-27 14:56:19	/joanvalidationrulesruleapp/1.0/joanvalidationrules/1.0.7	7	View Decision details	15
52b59b6b-654f-4ed9-bdce-3733fe7a323	2009-04-27 14:56:19	/joanvalidationrulesruleapp/1.0/joanvalidationrules/1.0.7	7	View Decision details	0
dd463b46-83eb-4c5b-8203-bebab6fa2363	2009-04-27 14:56:19	/joanvalidationrulesruleapp/1.0/joanvalidationrules/1.0.7	7	View Decision details	0
2bf9d9e4-b0cc-4720-a069-a3b3ca43df8f	2009-04-27 14:56:18	/joanvalidationrulesruleapp/1.0/joanvalidationrules/1.0.5	5	View Decision details	16
5892f829-5724-41af-8aab-714fc51b535	2009-04-27 14:56:18	/joanvalidationrulesruleapp/1.0/joanvalidationrules/1.0.7	7	View Decision details	16

1 - 10 out of 178 results

- Traces decisions in production applications
  - Logs execution trace
  - Input / Output data
  - Execution results
  - Executed Tasks
  - Rules Fired
  - Queries
  - Open API to connect 3<sup>rd</sup> Party BI tools



# Decision Warehouse – Auditing



## Execution Details

**Decision ID:** 3f389f95-3cae-474a-aab6-5f0bfd3c0919  
**Date:** 2008-12-24 21:18:25  
**Executed ruleset path:** /prodra1230153503391/1.0/prodrs1230153503391/1.0  
**Processing Time (ms):** 215  
**Number of Rules fired:** 9  
**Number of tasks executed:** 6

## Decision: 3f389f95-3cae-474a-aab6-5f0bfd3c0919

- Ruleflow Tasks (1)
  - loanvalidation (5)
    - loanvalidation#initResult
    - loanvalidation#validation
    - loanvalidation#computation (5)
      - computation.initialCorporateScore
      - computation.neverBankruptcy
      - computation.salary2score\_7
      - computation.rate\_9
      - computation.repayment
    - loanvalidation#eligibility (2)
      - eligibility.grade
      - eligibility.appro
    - loanvalidation#insurance (2)
      - insurance.insurance\_10
      - insurance.defaultInsurance

## Input Parameters

```

borrower :
<?xml version="1.0" encoding="UTF-8"?>
<loan.Borrower xmlns:xsi="http://www.w3.org/2000/10/XMLSchema-instance">
<ssn>
<loan.Borrower.SSN>
    
```

178 Decision(s) found

Decision ID	Date	Ruleset Version	Number of rules fired	Decision Trace	Processing Time (ms)
b7c4ed78-f6d3-47ff-98c7-01ff911217ff	2009-04-27 14:56:19	/loanvalidationrulesruleapp/1.0/loanvalidationrules/1.0.7	7	View Decision details	0
624223f1-d5f5-4305-9126-f07e332efbfc	2009-04-27 14:56:19	/loanvalidationrulesruleapp/1.0/loanvalidationrules/1.0.7	7	View Decision details	0
fde9ea8a-5c06-4140-bbc4-d03e5690c507	2009-04-27 14:56:19	/loanvalidationrulesruleapp/1.0/loanvalidationrules/1.0.7	7	View Decision details	0
ce7bfe3b-68ef-410a-a96f-0bf3b8f8e861	2009-04-27 14:56:19	/loanvalidationrulesruleapp/1.0/loanvalidationrules/1.0.5	5	View Decision details	15
87e95fd3-bf89-4031-a50c-fb590d217da8	2009-04-27 14:56:19	/loanvalidationrulesruleapp/1.0/loanvalidationrules/1.0.7	7	View Decision details	15
51050750-8fa3-4a43-8593-7d4a22beb697	2009-04-27 14:56:19	/loanvalidationrulesruleapp/1.0/loanvalidationrules/1.0.7	7	View Decision details	15
52b59b6b-654f-4ad9-bdce-3733f5e7a323	2009-04-27 14:56:19	/loanvalidationrulesruleapp/1.0/loanvalidationrules/1.0.7	7	View Decision details	0
dd463b46-83ab-4c5b-8203-bebab6fa2363	2009-04-27 14:56:19	/loanvalidationrulesruleapp/1.0/loanvalidationrules/1.0.7	7	View Decision details	0
2bf9d9e4-b0cc-4720-a069-a3b3ca430f8f	2009-04-27 14:56:18	/loanvalidationrulesruleapp/1.0/loanvalidationrules/1.0.5	5	View Decision details	16
5892f829-5724-41af-8aab-71c4fc51b535	2009-04-27 14:56:18	/loanvalidationrulesruleapp/1.0/loanvalidationrules/1.0.7	7	View Decision details	16

1 - 10 out of 178 results

WebSphere ILOG Rule Team Server

Options | About | Print View | Help | rtsUser1 Sign Out

Home Explore Compose Query Analyze Project

Explore > Details loanvalidation-rules - grade (Decision Table) - permalink

grade (Decision Table)

New | Edit | Delete | Copy | Lock | Unlock | History | Help

Properties	
Name	grade
Status	New
Priority	high
Expiration Date	None
Effective Date	None
Locale	English (United States)
Categories	Any
Template	
Active	True
Folder	/eligibility
Group	
Created By	rtsAdmin
Last Changed By	rtsAdmin
Last Changed On	Apr 3, 2009 10:10:24 AM CEST
Created On	Apr 3, 2009 10:10:24 AM CEST
Type	Decision Table

	Yearly repayment		Corporate score		Grade	Message
	Min	Max	Min	Max		
1	0	10 000	≥ 900	900	A	Very low risk loan
2			600	900	A	Very low risk loan
3			300	600	B	Low risk loan
4	10 000	30 000	≥ 900	600	A	Very low risk loan
5			600	900	B	Low risk loan
6			300	600	C	Average risk loan
7	30 000	60 000	≥ 900	600	B	Low risk loan
8			600	900	C	Average risk loan
9			300	600	D	Risky loan
10		≥ 60 000	≥ 900	600	C	Average risk loan
11			600	900	D	Risky loan
12			300	600	E	Very risky loan

Attached Items

Overridden Rules

No overridden rule found

Tags

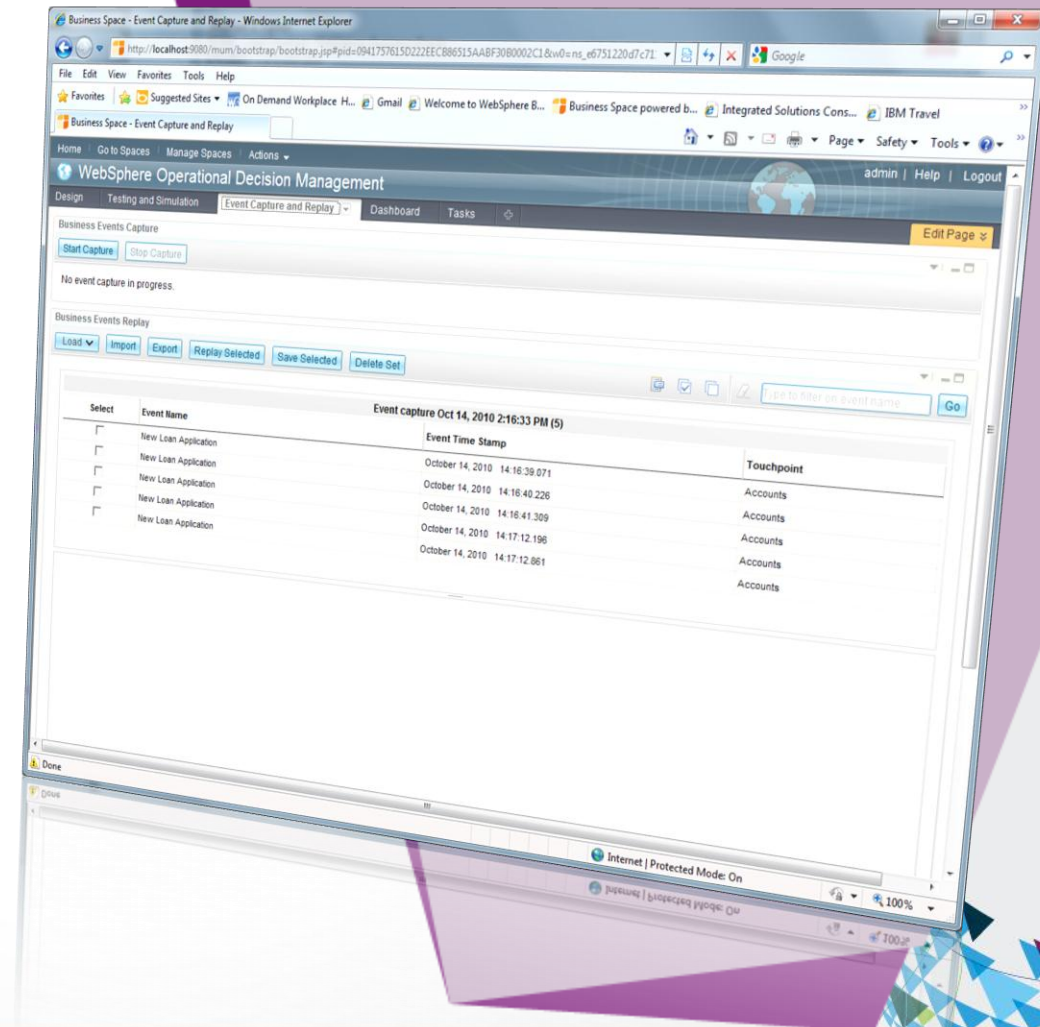
No tag found



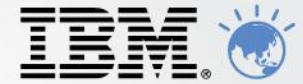
# Event Execution Runtime



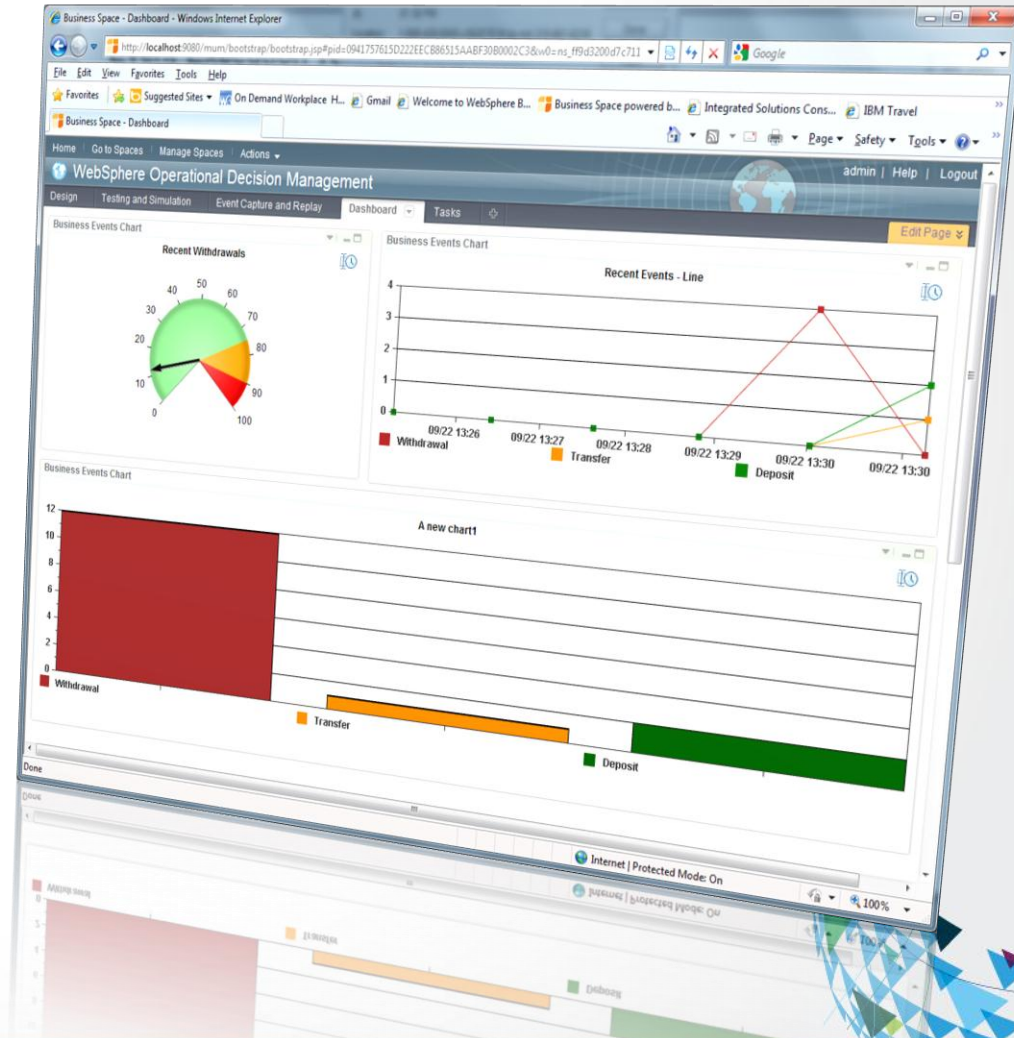
- **Record** a series of events over a period of time
- **Replay** events at any time, in any environment
- **Run** events in time-compression



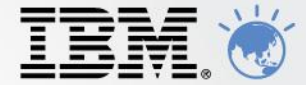
# Event Execution Runtime



- Quickly visualize event activity
- Create charts for any asset



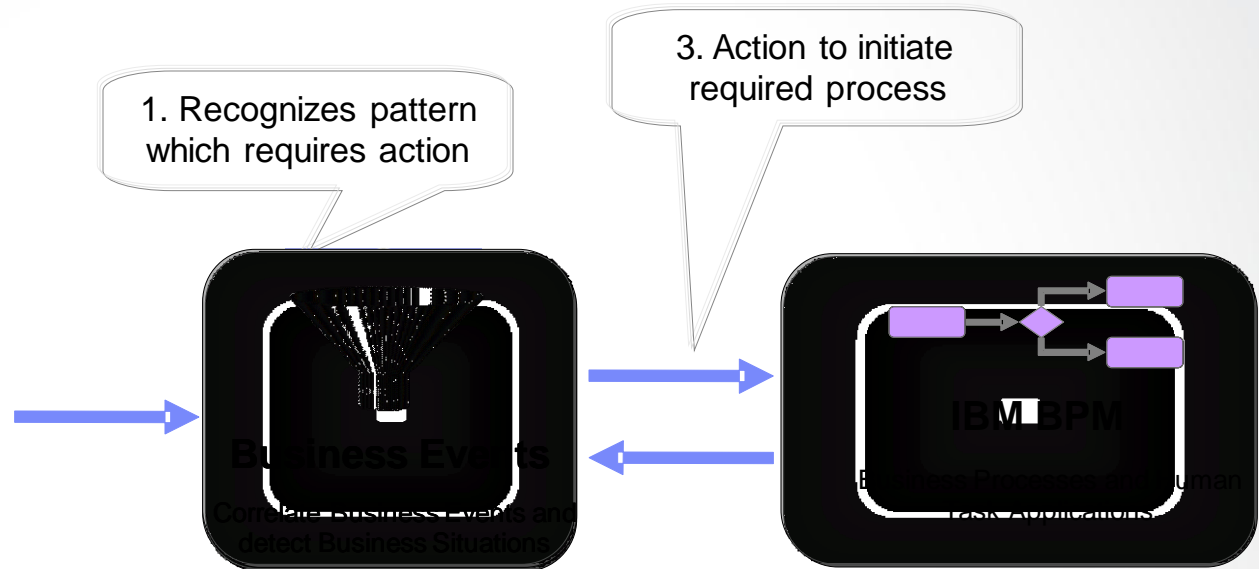
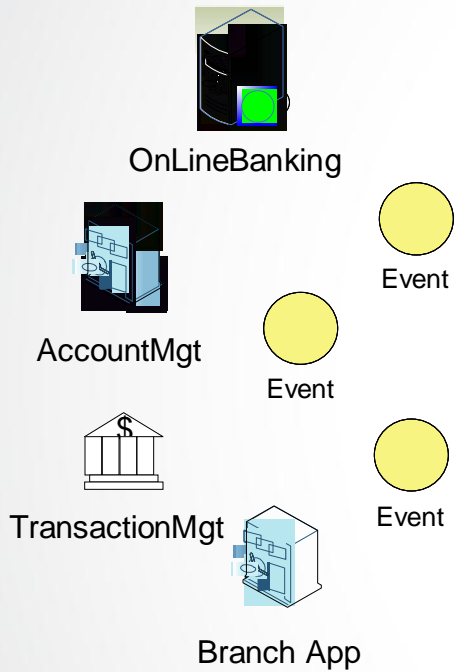
# Processes, Rules, Events



*Bringing it all together*



# BPM and ODM



2. Decides business outcome (i.e. price)

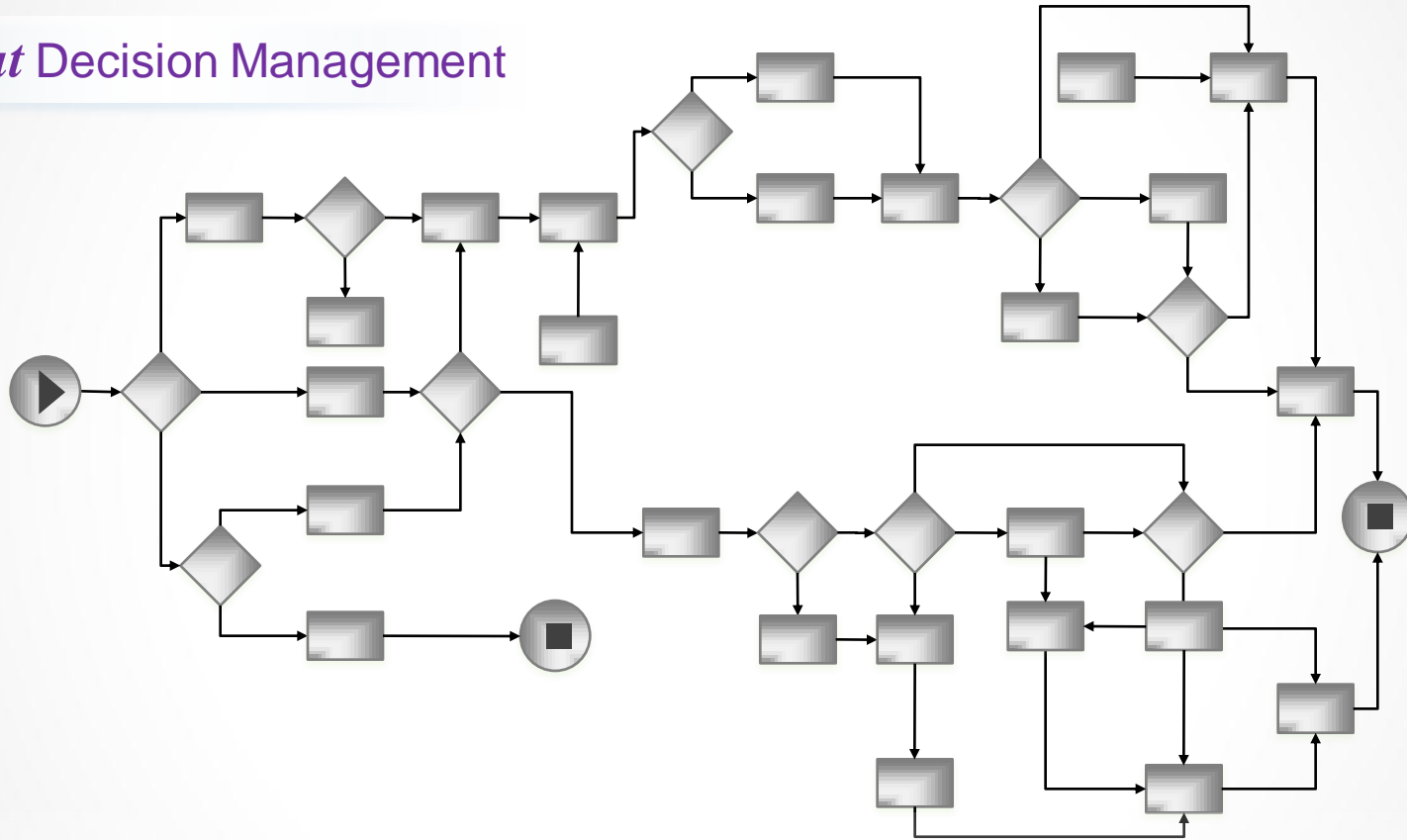
## Business Rules

Gender	Is Married?	Is Graduate?	Age	Salary	Adjustment Type	Surcharge	Reason
			Min	Max	Dollar		
0			4	23	23	surcharge	Driver Profile Surcharge
1			24	30	18	surcharge	Driver Profile Surcharge
2			31	35	12	surcharge	Driver Profile Surcharge
3	false		4	23	20	surcharge	Driver Profile Surcharge
4		true	24	30	15	surcharge	Driver Profile Surcharge
5			31	35	10	surcharge	Driver Profile Surcharge
6	male		4	23	10	surcharge	Driver Profile Surcharge
7		false	24	30	14	surcharge	Driver Profile Surcharge
8			31	35	10	surcharge	Driver Profile Surcharge
9	true		4	23	10	surcharge	Driver Profile Surcharge
10		true	24	30	10	surcharge	Driver Profile Surcharge
11			31	35	5	surcharge	Driver Profile Surcharge
12			4	23	14	surcharge	Driver Profile Surcharge
13	female	false	22	27	10	surcharge	Driver Profile Surcharge
14			28	33	6	surcharge	Driver Profile Surcharge
15		true	4	23	12	surcharge	Driver Profile Surcharge



# Decisions are Often Locked within Processes

*Without* Decision Management



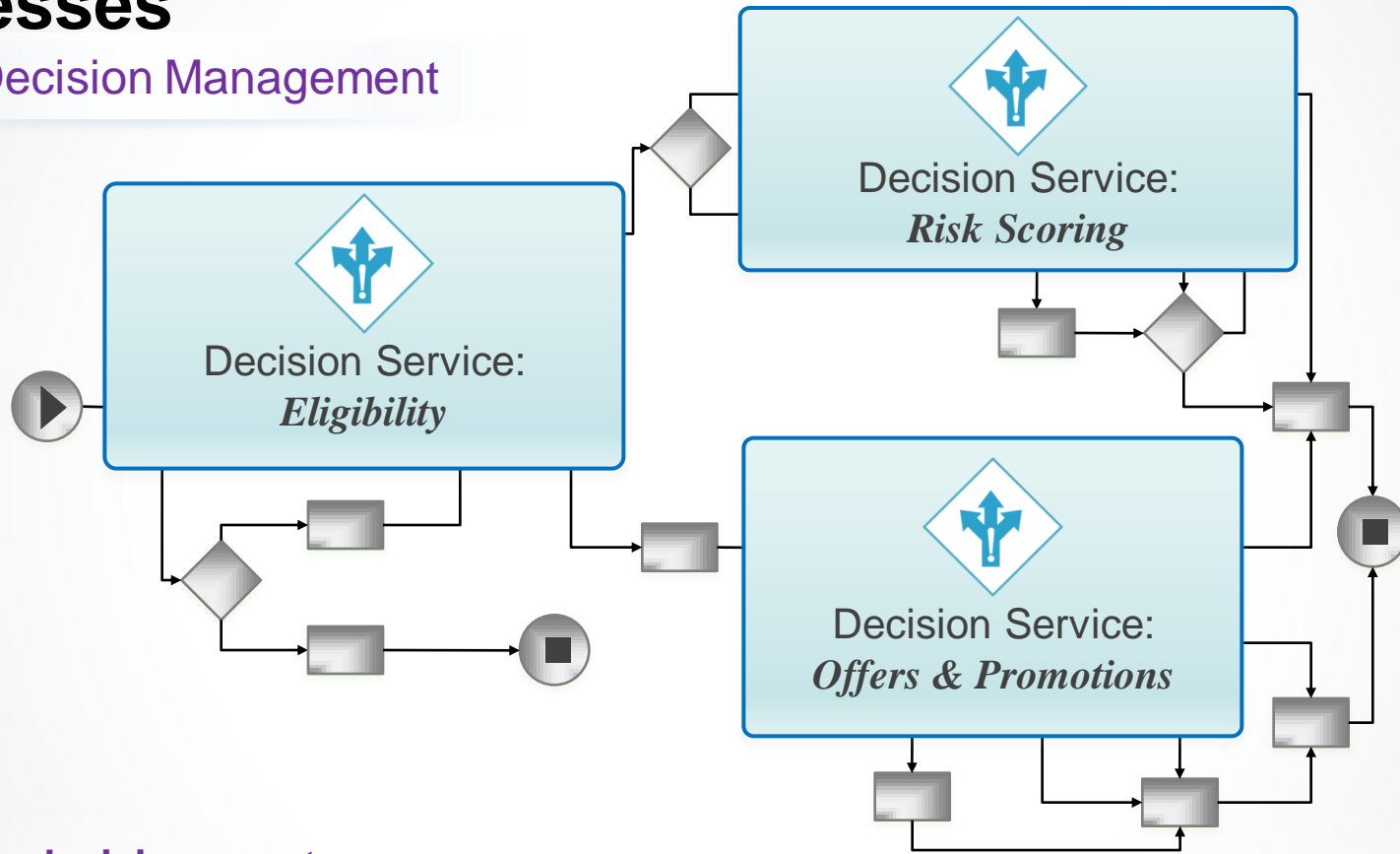
- Decisions are locked in processes and applications
- Programming skills are needed to create & modify decision logic
- Speed of business change is limited by IT bandwidth



# Decision Management Enables Reuse Across Processes



*With Decision Management*



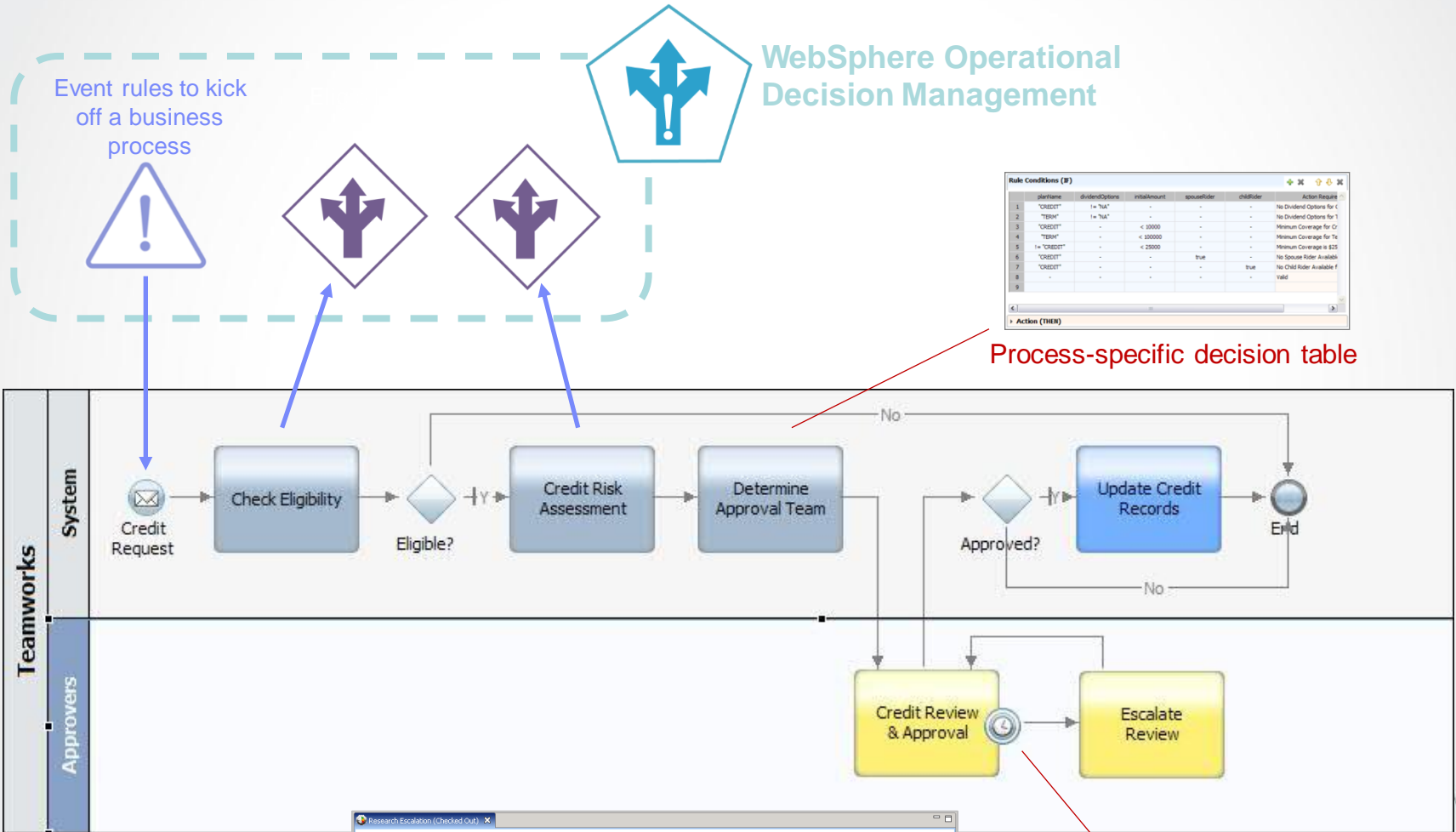
- **Reuse decision assets** across processes
- **Empower business people** to own, author and update decision services
- **Respond quickly** to changing market conditions





# Business Process Management

Externalizing decisions for the right types of rules



Event rules to kick off a business process

WebSphere Operational Decision Management

Rule Conditions (8)

id	planName	dividendOptions	initialAmount	spouseRider	childRider	Action Required
1	"CREDIT"	!= "NA"	-	-	-	No Dividend Options for C
2	"TRM"	!= "NA"	-	-	-	No Dividend Options for D
3	"CREDIT"	-	< 20000	-	-	Minimum Coverage for D
4	"TRM"	-	< 20000	-	-	Minimum Coverage for Tr
5	!= "CREDIT"	-	< 20000	-	-	Minimum Coverage is \$25
6	"CREDIT"	-	-	true	-	No Spouse Rider Available
7	"CREDIT"	-	-	-	true	No Child Rider Available F
8	-	-	-	-	-	Valid

Action (TRM)

Process-specific decision table

Research Escalation (Checked Out)

Service Level Agreement

**Common**

Name: Research Escalation  
 Modified: br\_admin (06/12/2004 08:00:01)  
 Documentation:

**Details**

Target type: Activity

**Trigger**

When any occurrence violates the condition

**Condition**

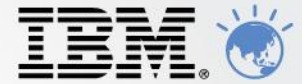
The Wait Time (Clock) KPI for Research Dispute (R07 Customer Dispute) is greater than the maximum threshold value.

**Consequence**

Initiate the process Dispute Escalation.

Process-specific SLA / Escalation rules

# Areas for combining Processes and Decisions

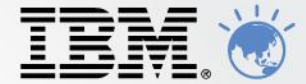


Horizontal: best/appropriate price, cross-sell/ up-sell recommendations, loyalty promotions, exception identification, risk/fraud assessment, straight-through processing approvals



Insurance	Banking	Healthcare	Government	Energy/Util./Telco
<ul style="list-style-type: none"> <li>▪ Claim                             <ul style="list-style-type: none"> <li>• Validation</li> <li>• STP approval</li> <li>• Exception routing</li> </ul> </li> <li>▪ Policy/Underwriting                             <ul style="list-style-type: none"> <li>• Eligibility</li> <li>• Risk</li> <li>• Pricing</li> </ul> </li> <li>▪ Annuity                             <ul style="list-style-type: none"> <li>• Recommendation</li> <li>• Commissioning</li> <li>• Payout calc.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Loan                             <ul style="list-style-type: none"> <li>• Eligibility</li> <li>• Risk</li> <li>• Pricing</li> </ul> </li> <li>▪ Account                             <ul style="list-style-type: none"> <li>• Cross-sell</li> <li>• Fraud/Alerts</li> </ul> </li> <li>▪ Credit Card                             <ul style="list-style-type: none"> <li>• Mkg Offers</li> <li>• Fraud</li> <li>• Credit limit</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Patient Care                             <ul style="list-style-type: none"> <li>• Drug interaction risk warnings</li> <li>• Follow-up alerts</li> </ul> </li> <li>▪ Member                             <ul style="list-style-type: none"> <li>• Services recommendation</li> <li>• Eligibility</li> <li>• Benefit calculation</li> </ul> </li> <li>▪ Provider                             <ul style="list-style-type: none"> <li>• Patient eligibility for services</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Benefits                             <ul style="list-style-type: none"> <li>• Eligibility</li> <li>• Calculations</li> </ul> </li> <li>▪ Tax Payer                             <ul style="list-style-type: none"> <li>• Classification</li> <li>• Audit flagging</li> </ul> </li> <li>▪ Citizen                             <ul style="list-style-type: none"> <li>• Program(s) recommendation</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Land/Permits                             <ul style="list-style-type: none"> <li>• Conveyance processing</li> <li>• Contract compliance</li> </ul> </li> <li>▪ Service Mgmt                             <ul style="list-style-type: none"> <li>• Service prioritization</li> <li>• SLA alerts</li> <li>• Maintenance alerts</li> <li>• Order configuration</li> </ul> </li> </ul>

# Summary



## Business User Empowerment

*Author, improve and maintain decision logic  
in partnership with IT*



## Decision Externalization

*Enable visibility and reuse*



## Real-time Decision Automation

*Execute real-time decisions precisely and reliably*



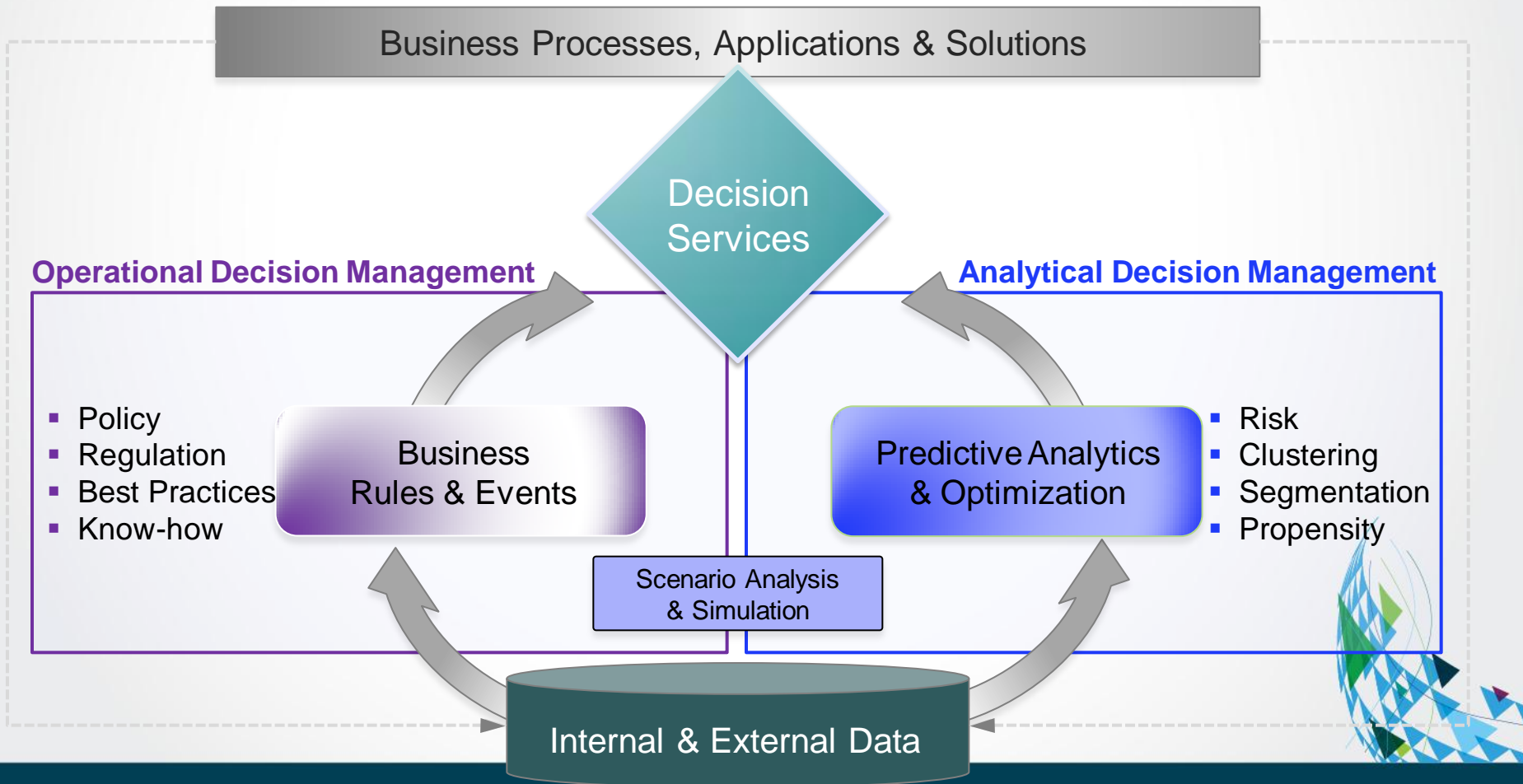
Thank  
You



# What is Decision Management?



**Decision Management** is a business discipline that enables organizations to automate, optimize and govern repeatable business decisions.



# Decisions from CICS and batch applications

