



## **A Day in the life of a Rules Analyst**

**Filip Lou, Sr Technical Account Manager, August 2009**



# Agenda



- Introduction to BRMS
- IBM Websphere ILOG JRules
- A Day in the life of a Rules Analyst
- Conclusion



# Traditional Approach for Managing Decision Change



Business rules are crucial to operational systems, and they change over time. 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

```
WFSWF ...SER...
Before performing any socket operation (like retrieving hostname
to test_connection, variables we have to call) WFSStart()
WFSStart()
IF (CONNECT_ERROR == WFSStart() && !WFSStart())
/* errors are not read yet, so we use english text here */
msg_message(MSG_ERROR_FAILED, "WFSStart failed", WFS());
WFSStart();
endif IF ...SER... */
IF (test_connection_variables(MYSQL_CONFIG_NAME,
                             user, user_load_default_group))
WFSStart();
endif
test_variables();
IF (test_variables() & SPECIAL_WFS())
msg_send_message(MSG_ERROR_FAILED, "CONNECT_FAILED");
endif
```

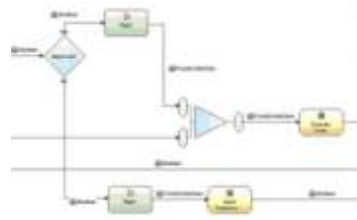
Applications



Documents



People



Processes

## 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

## Where Business Rules Typically Exist

```

before ...SCR...
before performing any socket operation (like retrieving hostnames
to test_connection_variables we have to call WSABStartup
WSADATA wsaData;
if (SOCKET_ERROR == WSABStartup (&wsaData, 0))
/* errors are not read yet, so we use explicit test here */
wsaMessageID_MQAS_FAILED, "WSABStartup failed", MYID);
wsaData.wsaVersion;
}
#endif /* ...SCR... */
if (Client_connection_variables[MQAS_CONNECTION_VARIABLE]
wsaData.wsaVersion;
test_connection_variables[MQAS_CONNECTION_VARIABLE]
wsaData.wsaVersion;

```

Applications



Documents



People



Processes

## Business Rule Management System



User Tools

Rules are Defined, Analyzed and Maintained



Rule Repository

Rules are Stored and Shared



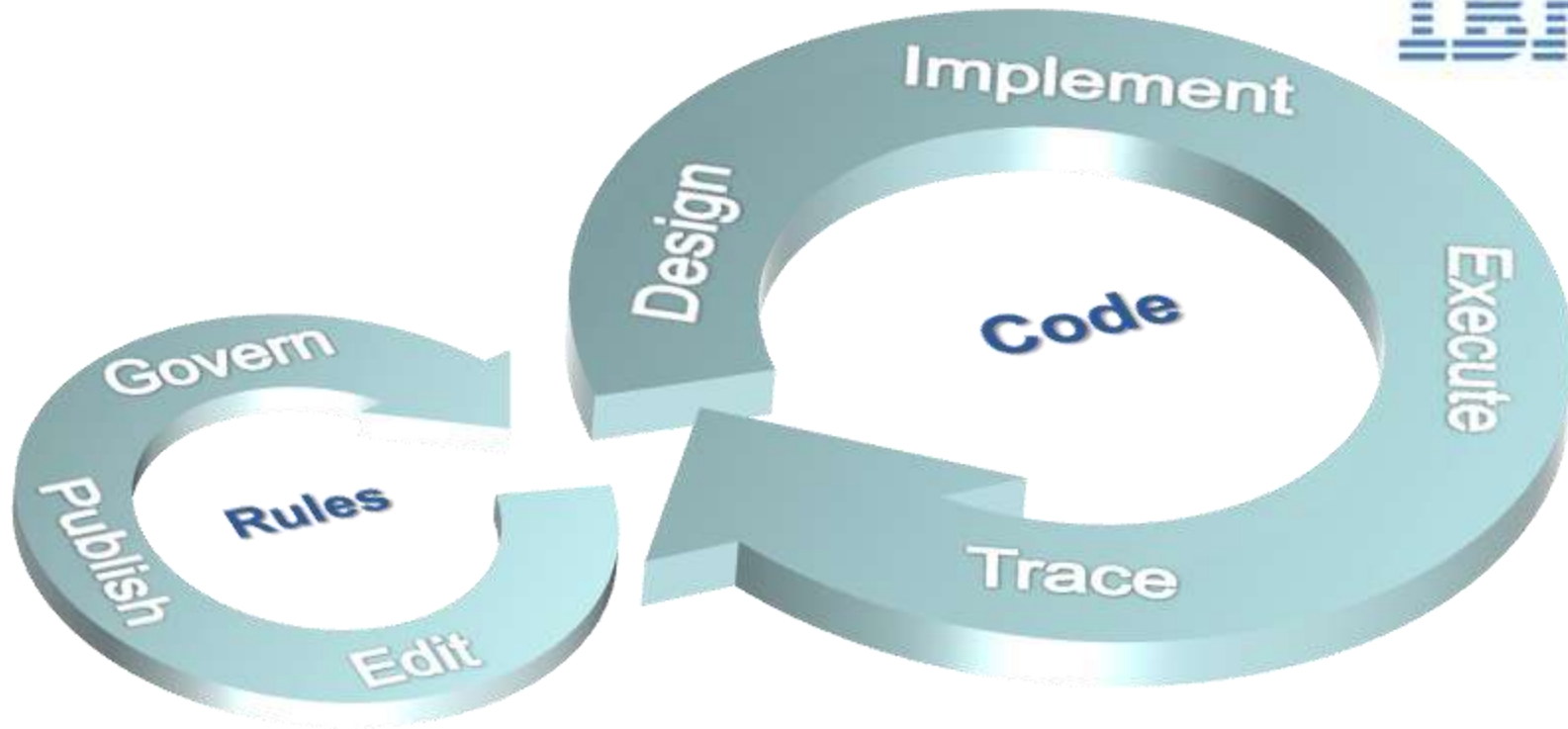
Rule Server

Rules are Deployed, Executed and Monitored





# Redefined Application Change Cycle



**Business - IT**

**Decisions / Policies**

**Days / Weeks**

**Developer**

**Functions /Tasks / Flow**

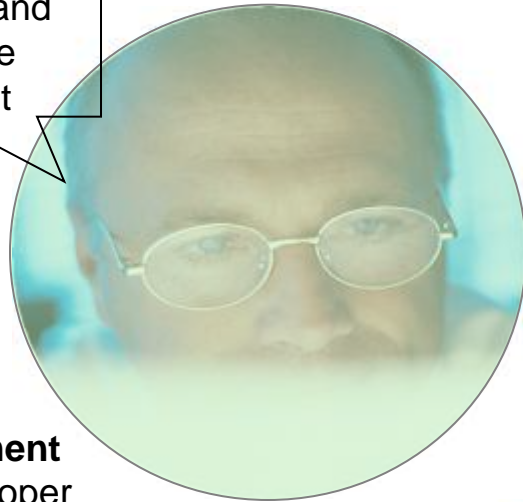
**Weeks / Months**



# Managing Change Across the Organization



I need a comprehensive rules development and maintenance environment



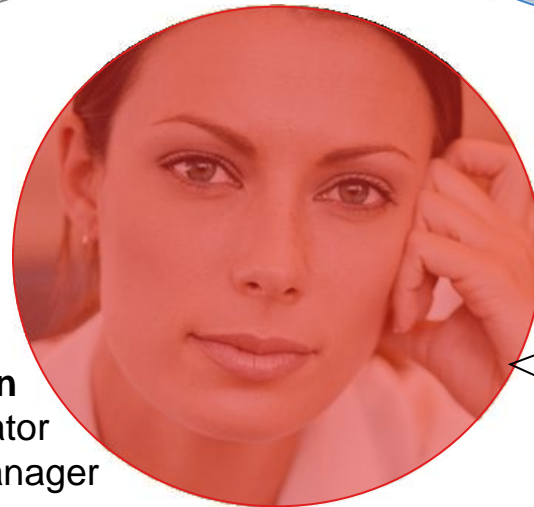
**Development**  
Rule Developer  
Rule Modeler  
Business Analyst

I need easy, efficient and reliable policy change delivery



**Line of Business**  
Business Partner  
Policy Manager  
Line of Business Manager

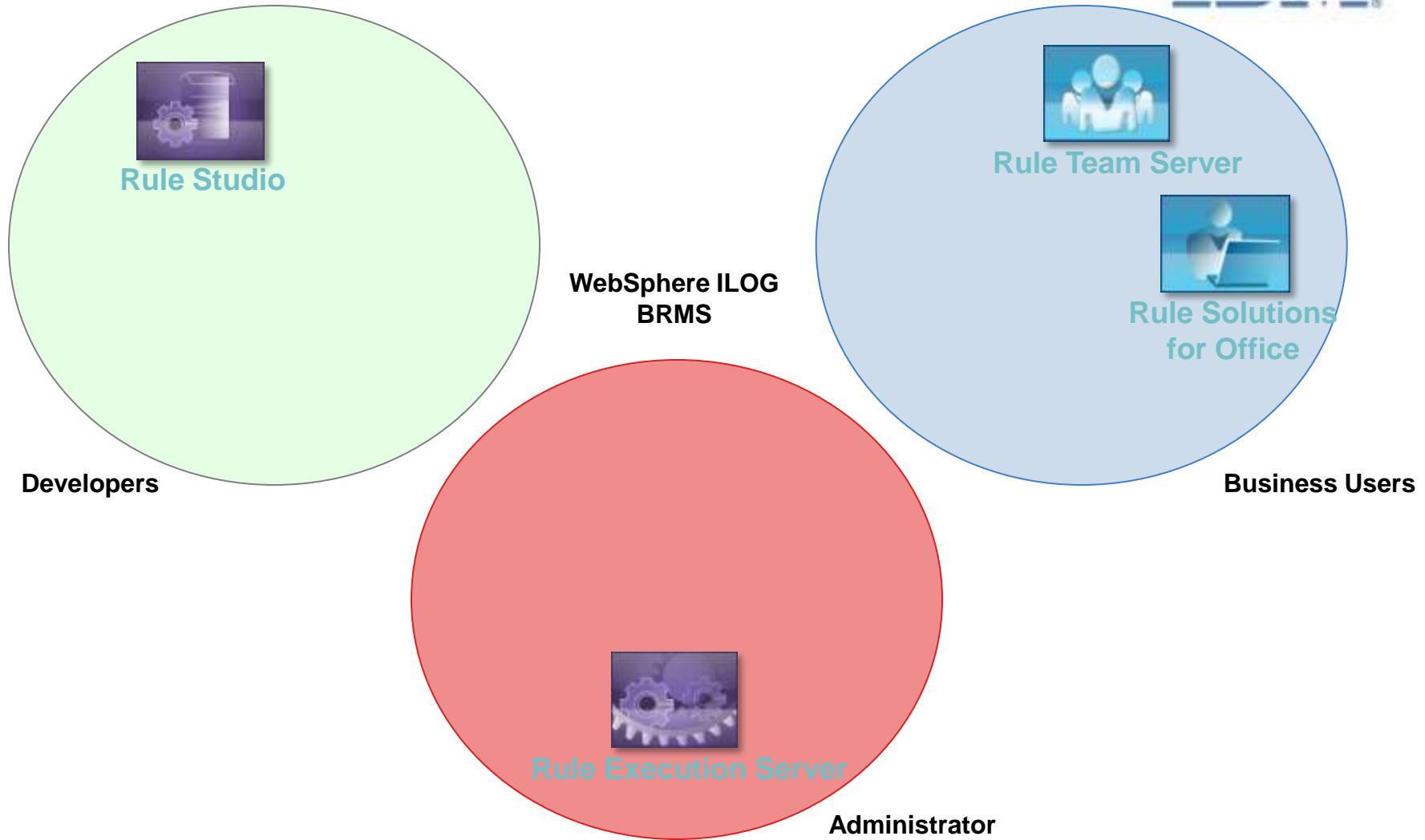
**Production**  
IT Administrator  
System/Ops Manager



I need performance, scalability, monitoring and reliability of operations



# Comprehensive Environments for Every User



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# Business Rule Language



```
if  
the type of claim is Veterinary cost  
then  
Processing type for claim is : Automate  
else  
Processing type for claim is : Manual
```

- Customizable vocabulary specific to your organization, industry, application (etc.)
- Supports language localization
- Integrates with external data sources (e.g. list of countries)
- Drop down lists for customized domain data
- Templates facilitate new rule creation

- Supports all kind of rules:
  - Basic to cross validations
  - Derivations
  - Inference based rules
  - Calculations rules
  - Product offering
  - Underwriting
  - Scoring
  - Rating...

```
if  
the credit score of the borrower is less than 200  
then  
add "Credit score below 200" to the messages of the loan  
reject the loan;
```



# Advanced Decision Tables



	Grade	Amount of loan <span style="color:red">✖</span>		Insurance required	Insurance rate
		Min	Max		
0	A	< 100,000		false	0.001
1		100,000	300,000	true	0.003
2		300,000	600,000	true	0.005
3	B	≥ 600,000		true	0.005
4		< 100,000		false	0.001
5		100,000	300,001	true	0.0025
6		300,000	600,000	true	0.005
7	C	≥ 600,000		true	0.0075
8		< 100,000		true	0.0035
9		100,000	300,000	true	0.006
10		300,000	600,000	true	0.0085
11	Otherwise	≥ 600,000		true	0.0145
12				true	0.022

**Built-in Gap/Overlap Checking**

**Actions**

**if**  
**all of the following conditions are true :**

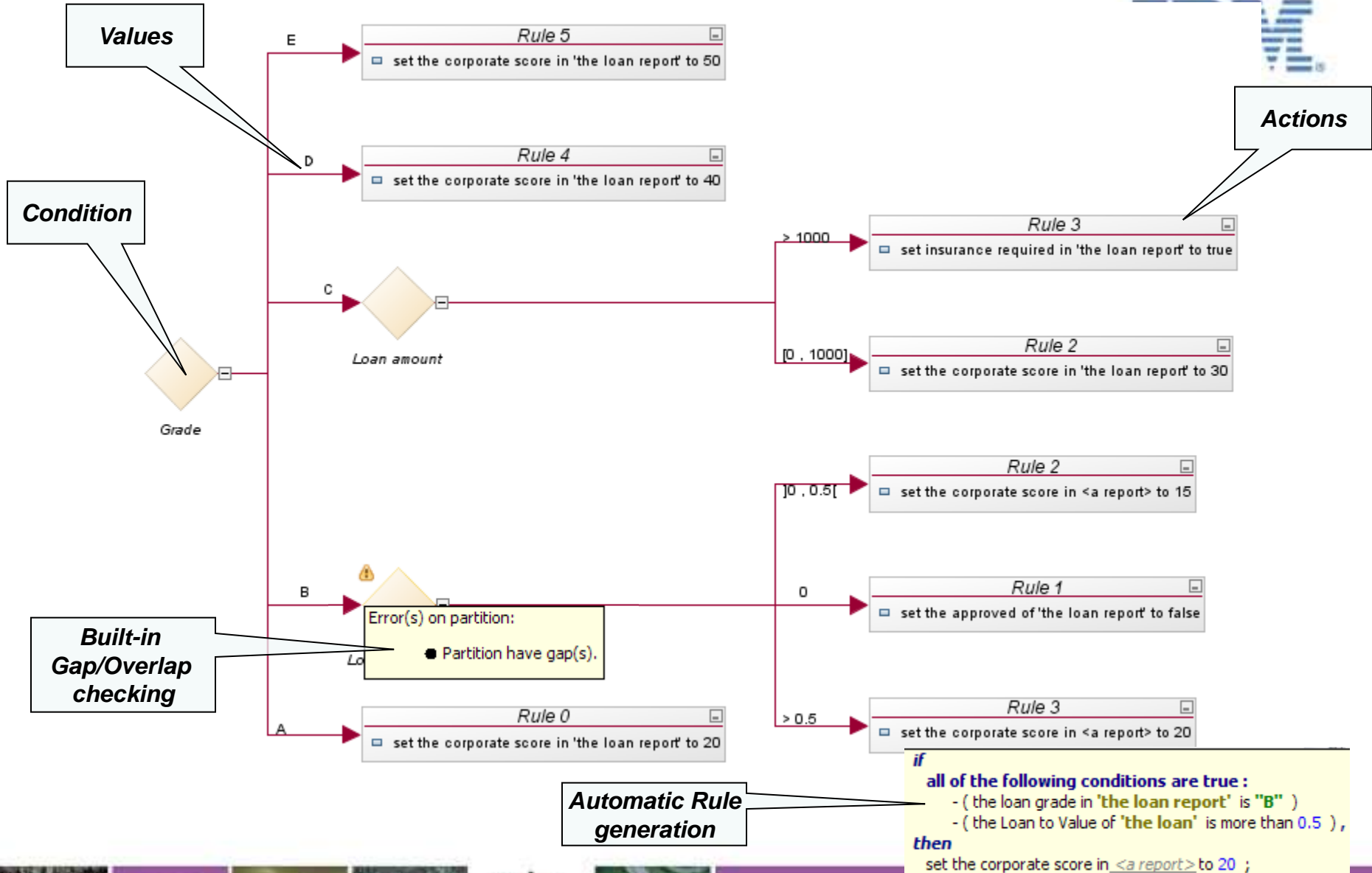
- the loan grade in 'the loan report' is "C"
- the amount of 'the loan' is at least 600000 ,

**then**  
 set insurance required in 'the loan report' to *true* ;  
 set the insurance rate in 'the loan report' to 0.0145 ;

**Automatic Rule Generation**



# Decision Trees



# Examples of Customer BRMS Applications



## Banking

- Loan Origination
- Credit Decisioning
- Sales Advisory
- Payments
- Accounting

## Insurance

- Claims Processing
- Underwriting
- Quoting
- Rating
- Commissioning

## Capital Markets

- Automated Trading
- Trade Order Management
- Accounting
- Compliance KYC / AML
- On Boarding

## Public Sector

- Claims Processing
- Entitlement and Benefit calculation
- Fraud Detection and Management
- Screening and Targeting

## Telecom

- Offer Configuration
- Order Management
- Fraud Detection and Management
- Loyalty Programs
- Network Monitoring

## Transportation and Travel

- Promotions Management
- Loyalty Programs
- Customer Service
- Billing
- Contract Management

## Retail

- Online recommendation
- Campaign Management
- Order Management
- Pricing

## Manufacturing

- Order Management
- Billing
- Contract Management



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# Demo



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# Benefits of the ILOG BRMS



## Reduced lead times for changes

*Fast, reliable of customer loyalty offers, deployed directly by business users (retail)*

## More personalized client interactions

*2.5x improvement in acceptance of cross-sell offers (retail banking)*



## Internal/external compliance

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

## Business – IT alignment

*Reduced new policy implementation by 50% (financial services)*



# ILOG JRules BRMS – Manage Change with Confidence



- Implement change in a way that is easy, safe and predictable
- Reduce the time and cost required to develop and maintain operational systems that are affected by change
- Provide a way for IT and Business functions to work collaboratively on defining and updating the decision logic that drives operational systems
- Increase the visibility of how systems use and are affected by decision logic



# BRMS Resource Center

Central resource for developers, architects and IT managers to share industry knowledge, experience and best practices surrounding BRMS.



<http://www.ilog.com/brms/>

- Quick start tutorials
- Online forums, blogs
- White papers
- Recorded webinars
- Meet the experts
- Analyst reports.

IBM

ilog.com > BRMS Resource Center

## BRMS Resource Center

Looking for general information about ILOG BRMS products?

What is your platform?

- Java
- .NET
- Mainframe

**Understanding the effect of ruleset parsing on the performance of Rule Execution Server**

This White Paper describes the scenarios in which ruleset parsing occurs and how ruleset parsing affects your business application. The document also describes techniques one can adopt to make sure that ruleset parsing does not adversely affect the user experience or...

**Guidelines for Configuring Rule Execution Server Deployment on Server Clusters**

Clusters provide mission-critical services to ensure minimal downtime and maximum scalability. A cluster is a group of servers that transparently run your infrastructure as if it were a single entity.

Rule Execution Server for .NET 3.0 relies on Windows Server...

**Effective Legacy Modernization with BRMS**

One of the primary problems with legacy applications is the practice of hard coding the Business Rules that enforce the Business Policies/Practices of the organization. The business data, business logic/rules and software infrastructure are all are entangled in a web...

**BRMS Tech TV**

Featured: Rule Studio Integration with Eclipse

- BRMS Basics
- Developers and Architects Topics

**Do you know...**

ILG Business Rule Management Systems (BRMS) provide easy, safe and predictable control over automated business decisions with the right tools for business managers, analysts, architects and developers.

[Learn more](#)





# Q&A

