



WebSphere software

Agile Decision Services: How IBM ILOG's Business Rule Management System helps Organizations Deliver Fast Time to Value for Business and IT

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Contents	
Executive Summary	2
The Case for IT Investment in an Economic Downturn	2
Introduction to Agile Decision Services	3
BRMS: Facilitating ADS	4
BRMS across the Organization	8
BRMS Implementation Methodology	9
Conclusion	10
Next Steps: Kick off Your ADS Action Plan	11

Executive Summary

This paper explores the challenges that organizations face in trying to deliver quick time-to-value for IT projects and achieve the status of ‘agile enterprise’. It illustrates how IBM® WebSphere® ILOG Business Rule Management System (BRMS) can facilitate the alignment of IT with business and support the implementation of an agile decision service (ADS) to provide business value within months of project adoption.

The Case for IT Investment in an Economic Downturn

In difficult and credit-challenged economic environments, such as ours today, executives are tempted to cut IT investment as part of their corporate financial restructuring efforts. Such a decision may be appropriate for commoditized expenditure. However, in some cases, it can be argued that they should look to IT for help in weathering a downturn and positioning themselves for the following recovery.

Commercial organizations face tremendous pressure to swiftly adapt to change. The ongoing turmoil in global financial markets suggests that dramatic economic and regulatory changes can occur within months, or even weeks. How can your company react to this type of change, and what are the implications of inertia?

Effective assessment and analysis of available options can demonstrate that moderate levels of investment in IT can help boost the performance of value-creation processes within a short timeframe.

With reduced time-to-value, ADS provides opportunities to deliver business value within months.

Highlights

Decision Services are logic service entities that implement operational decisions or business policies to help keep the enterprise in synch with market changes.

Introduction to Agile Decision Services

Decision Services are logic service entities that implement operational decisions or business policies to help keep the enterprise in synch with market changes. They define rules and policy governance between the decision stakeholders and their integration with different information systems.

IBM ILOG refers to **ADS** where:

- Business users require better control of rules and policies.
- Rules and policies are subject to frequent change.
- Change execution is required on a real-time basis.
- Required time-to-value is short, for example, six months from project adoption.

Examples of **ADS**:

- **Eligibility service:** Is this customer eligible for this particular offering?
- **Bundling service:** What service bundle is the best for my customer's stated needs?
- **Commissioning service:** What commission is due to this dealership or agent?
- **Compliance service:** Is this transaction valid and compliant with global compliance policies?
- **Reporting service:** What is the consolidated balance of yesterday's trading transactions?

Highlights

The core processes of ADS are rule-intensive.

The core processes of **ADS** are rule-intensive. In most cases, these rules can be derived from informal expressions, including business user statements and business policy guidelines, or existing code in legacy systems such as spreadsheets, database tables and even hardcoded business logic. Capturing these different rule forms and expressions correctly is crucial to transposing an existing enterprise asset into an effective ADS. To this end, the involvement of business users in the iterative testing of the rules, and their deployment and maintenance in a business environment provides an invaluable contribution to the whole implementation effort. It helps ensure a reduction in issues associated with lack of understanding between business users and IT. In essence, BRMS provides a common language through which both groups can communicate effectively.

Acquired over more than a decade, IBM ILOG's experience demonstrates that time-to-value can be achieved, with effectively defined and managed projects, in six months or less, with the service quality that business demands.

BRMS: Facilitating ADS

Leading companies and institutions have benefited from successful implementations of ADSs with WebSphere ILOG BRMS:

- **Thames Water Plc.**—a major UK utility serving 13 million customers around London, has deployed an integrated conveyancing and billing system—initially with a very limited number of business rules. Business users discovered the agility and the fine-grained logic of the system, to the extent that they now manage several thousand rules. Cost savings are anticipated to reach £3 million, with additional revenue generated by smarter billing expected around £1.4 million over a further five years following implementation.

Highlights

“Aligned IT and business results in double the productivity gains of isolated business and IT efforts.”

- Source: London School of Economics
– McKinsey Survey and Analysis of 100 companies in France, Germany, UK and US

- **Another major UK utility**—a household name—specified and built a new pricing service in just four months. This deployment is aimed at providing superior, focused customer service, swift reaction to competitive threats and reduced revenue leakage.
- **A key British Government Department** has used BRMS to develop an eligibility service. This project was initially disconnected from the overall system. During the project, a team of IT and business experts worked together to understand which data to feed the service, both now and in the foreseeable future. This eligibility service is highly flexible and able to deploy changes in regulations and entitlements swiftly and effectively.
- **A major investment bank** has deployed BRMS to fulfil a major requirement of its global trade reporting capabilities. It has used BRMS to provide consolidated, daily trade and risk reports across multiple business units. BRMS has helped this organization to manage a significant increase in transactions and data, while providing transparency and consistency on its reporting mechanism. The project cost was 30 percent of the initial, assigned budget, based on the acquisition of an ETL (extract, transform and load technology).

Enabling IT and Business Alignment

With a traditional approach to implementation, it is entirely possible for an ADS project to run over time, and still not provide the service and the value required. This may be due to any number of factors, such as specification discrepancies between IT and business users, out-dated requirement definitions, or a reluctance on the part of business users to become involved in testing programs. After going live, it is possible that the business logic, as implemented, does not provide the desired output and that changes are still difficult to implement.

Highlights

Alignment of business and IT is essential to the success of an ADS project, and facilitated by the common language that BRMS provides.

The root of the problem is, however, a common one. In an organization where IT and business do not communicate and interact effectively and efficiently, there is a far greater chance that a project will fail. Alignment of business and IT is essential to the success of an ADS project, and facilitated by the common language that BRMS provides.

Listed below are critical project phases and examples of lack of alignment that may be experienced:

Assessment phase

- **Business user:** 'I am struggling to provide input to my IT team in a language that they understand.'
- **IT:** 'I don't have clear and sufficiently detailed specifications from my business "client".'

Development phase

- **Business user:** 'My concern is that IT hasn't understood my requirements correctly, and we are in the final stages of the project.'
- **IT:** 'I need to be able to engage in intermediate testing with business prior to full user acceptance testing.'

Go-live phase

- **Business analyst:** 'How I wish I could do it myself; it would be far quicker and I could be sure that I implement what I requested.'
- **IT:** 'I need to be able to implement these rules only two days before "go-live".'

Highlights

The adoption of an effective BRMS provides a unique means to align IT and business at every key stage of an ADS project. Listed below are some of the key benefits that make BRMS a ‘business’ tool:

- **User friendly interface:** Creation, edition of rules in a business language, easy access and visibility of rules and their history, hierarchy and consistency
- **Real simulation:** Easy integration with legacy or simulation datasets, consistency checking, impact analysis
- **Time saving:** The ability to create rule templates that can be reused and transposed across different business lines or processes
- **Versioning, control and compliance:** Governance of rules according to the requirements of the organization, traceability and audit reports on all executed rules for all transactions

BRMS allows for an iterative approach to testing that facilitates business users' involvement throughout the development phase.

These capabilities provide IT and business users with the ability to engage at an early stage of the project and allow collaboration on the different stages of an ADS's life cycle. For instance, IT can produce advanced proofs of concept (POCs) or customized demos that speak the language of the business users. Reciprocally, the business team is able to articulate its requirements clearly and effectively in a way that is directly actionable in processes. BRMS allows for an iterative approach to testing that facilitates business users' involvement throughout the development phase. Finally, unlike many IT projects, rule changes can be undertaken within a ‘business’ timeframe, as opposed to an ‘IT’ timeframe.

The clear ability to limit project risk is a key driver for business and IT.

The ultimate goal, defined by the objective time frame of providing time-to-value within six months, provides significant inducement for agile, effective interaction and collaboration between business and IT.

Highlights

These applications—enterprise resource planning (ERP), supply chain management, client relationship management, and order management systems can be extended using IBM WebSphere ILOG BRMS.

BRMS across the Organization

ADS provide seamless integration and business value with enterprise applications in service oriented architecture (SOA) environments and with business process management solutions.

BRMS and Enterprise Applications

Enterprise applications offer a consistent environment for managing many critical processes. They are based on models that serve as the common denominator for many organizations. Hence, they provide a commoditized way to run a business. When organizations need to extend these models and apply more precise and unique business logic, such applications are difficult and expensive to evolve.

These applications—enterprise resource planning (ERP), supply chain management, client relationship management, and order management systems—can be extended using WebSphere ILOG BRMS. A good example is that of a leading European car manufacturer that enhanced its ERP system with a rule-based service that computes optimal car delivery dates according to daily manufacturing process constraints and events.

BRMS and SOA

Many organizations embark on SOA initiatives to provide greater flexibility within their IT architecture and to better use their information assets. In a number of cases, these initiatives are supported, but not well understood, by the business user. SOA is often perceived as an IT ‘enabler’ and of little, or no, interest to the business user. Yet, SOA becomes an explicit asset for the business when services can be accessed and changed using business rules.

Highlights

In fact, the reusability of services—one of the most compelling promises of SOA—is actually delivered when business rules are used to describe the logic of a service. Moreover, any set of rules expressed in WebSphere ILOG BRMS can be exposed as a Web service with just one mouse click.

BRMS and BPM

When dealing with business complexity, project managers will agree on one fact: process logic and business Logic should not be mixed. For simple systems, it may be tempting to integrate business logic in processes, but such an action will only serve to multiply the number of branches in the process. The adoption of such a strategy may lead to chaos in the long run, and a painful exercise of 'refactoring' may be required to streamline the process and restore its performance.

BRMS Implementation Methodology

IBM ILOG has a long, successful history of deploying BRMS projects. IBM ILOG's implementations of BRMS are non-prescriptive in terms of methodology, and integrate into the great majority of existing methodologies. However, the IBM ILOG Solution Implementation Standard (ISIS) is an industry-recognized methodology built on the Eclipse Foundation's Open Unified Process (OpenUP), which affords significant flexibility for implementation and integration efforts. Leveraging the Eclipse Process Framework (EPF) ensures that ISIS extends OpenUP to support the specific implementation requirements of a BRMS.

The IBM ILOG Solution Implementation Standard is an industry-recognized methodology built on the Eclipse Foundation's Open Unified Process , which affords significant flexibility for implementation and integration efforts.

Highlights

Figure 1: ISIS project phases and disciplines



Conclusion

Time to Value and Uniqueness: Key Assets of an Organization

Using a BRMS provides one of the most effective ways to activate business policies and rules in systems and processes. It enables a collaborative effort between IT and business users, based on a shared business language. Business rules are captured and effectively managed as enterprise assets, with the necessary governance.

BRMS provides one of the most effective ways to activate business policies and rules in systems and processes.

Highlights

A BRMS can capture unique business logic and model the decisions that can make a company agile, reacting competitively to a fast-changing, complex environment.

Deploying an ADS does not require complex and costly projects. With a strong methodology, it can take only a few months and rapidly deliver value to the business. Unlike commoditized commercial packages that are used to 'run the business' without bringing any advantage, a BRMS can capture unique business logic and model the decisions that can make a company agile, reacting competitively to a fast-changing, complex environment.

Next Steps: Kick off Your ADS Action Plan

IBM ILOG offers various ways to build your action plan. IT organizations can start by becoming familiar with the technology.

Hands-on Knowledge Acquisition

- Technical/architect workshops at IBM ILOG's offices
- Webinars
- IBM ILOG evaluations
- Contact us at www.ibm.com

Engaging Business and IT users

- Discovery workshops—on-site with IT and business users
- Reference-site visits

Start a Project

- Proof-of-concept support
- Five- to 20-day assessments



Resources and Further Reading

[The BRMS Resource Center](#)

[The Forrester Wave : Business Rules platforms – Q2 2008](#)

[Transparent Decision Services for SOA - whitepaper](#)

[ISIS : Delivering successful solutions – Each and every time](#)

For more information

To learn more about IBM WebSphere ILOG BRMS programs and offerings, contact your IBM sales representative, or visit: www.ibm.com

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