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*Business Rule Management  
Systems and Financial Services:  
Equifax as a Case Study*

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## EXECUTIVE SUMMARY

Equifax has become a household name in America as a provider of credit reports and data. The 106-year-old, publicly traded company has a long history of managing credit, demographic, marketing, and other types of data on consumers and businesses. Over the past few decades, the company has expanded its service offering across the credit acquisition life cycle, particularly to the decisioning process of extending credit. Equifax developed solutions such as Equifax Decision Power to help lenders and credit issuers match the appropriate product to their applicants based on the applicant's profile and lender's criteria. Decision Power has grown significantly since the early 1990s and is currently used by 700 companies across the US in the financial services, telecommunications, auto finance, and healthcare industries.

The complexity of these industries has grown over the last few years, requiring decisioning solutions to be more customizable, offer more reports for both competitive benchmarks and regulatory purposes, allow for streamlined processes, and be accessible through user-friendly applications. These requirements, coupled with the steady increase in Decision Power users, prompted Equifax to consider a new platform for its product—one that would be capable of addressing the changing needs of its customers and the needs of tomorrow both efficiently and effectively. Equifax decided that a third-party business rule management system (BRMS) would provide such a platform and take its decisioning products to the next level.

Although business rules engines have been around for more than 25 years, they are increasingly drawing the attention of many lenders and similar companies as they seek better solutions to address the complexities of their business at a time when regulatory and compliance issues continue to intensify. Today's enhanced business rules engines, namely BRMS, are capable of managing the set of rules governed by such complexities in a way no human or simplistic set of algorithms could.

Equifax turned to ILOG for a BRMS. ILOG, a provider of business rules technologies, has grown substantially over the past eight years, serving more than 2,500 customers worldwide. For a little more than a year and a half, Equifax worked to develop a new decisioning platform, InterConnect, that leveraged ILOG's business rule management system (JRules). InterConnect combined Equifax's many decisioning products onto one platform, and it enables business users to change these decisioning rules as the needs of their company change.

The development of InterConnect makes an interesting case study for two reasons. First, it is a great example of how one firm in the financial services industry was able to use a BRMS to improve its internal processes and product offering. Second, it is an example of a trend we are

beginning to see in the industry. An increasing number of vendors are starting to incorporate these robust rules engines into their solution suite to better serve the needs of financial institutions.

This case study walks readers through Equifax's process of choosing a BRMS solution, its implementation of the product, and the lessons learned. It provides readers with a firm understanding of BRMS as well as insight into best practices should they choose to implement a BRMS at their own company.

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## BACKGROUND

### COMPANY OVERVIEW

Equifax (NYSE: EFX) was founded in 1899 and has its headquarters in Atlanta, GA. The company employs more than 4,400 people in 12 countries across North America, Latin America, and Europe. Today, the company is one of the world's largest sources of consumer and business data, particularly in the US. In 2004, Equifax reported US\$1.3 billion in revenue.

Banks of all sizes and geographic locations use Equifax's products. In addition, the company has expanded its reach into the retail, telecommunications, utilities, automotive, brokerage, insurance and healthcare industries, as well as state and federal governments.

Leveraging its large databases, the company built up its service offerings to give companies the tools necessary to make good decisions. Equifax is no longer just a data company. Its products and solutions fall under one of the following three categories:

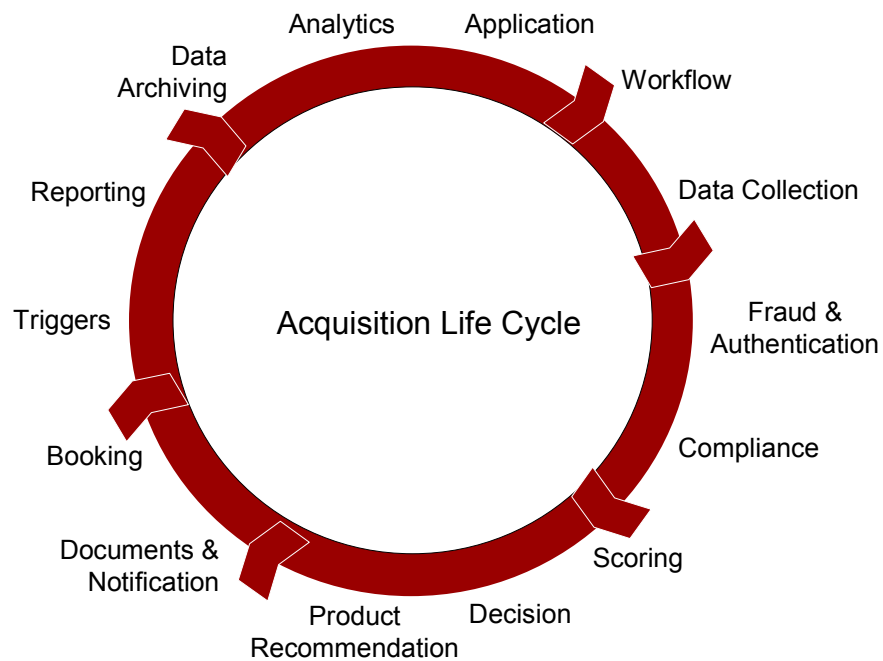
- **Information.** Large databases house hundreds of terabytes of data on both US consumers and businesses. Detailed information includes credit histories, demographics, and lifestyle information.
- **Analytics and insight.** Equifax provides tools to offer insight based on this data and data housed by internal customer databases. Customers may leverage acquisition, growth, and risk models—as well as macro and micro portfolio analytics and economic information—to help them plan, monitor, adapt, and achieve their business objectives.
- **Enabling technology.** This includes a set of tools designed to help businesses take advantage of the services and products offered in the first two categories. These tools combine a company's rules and procedures with multiple data sources and analytics to help drive business decisions.

### EQUIFAX'S DECISIONING SOLUTIONS

Equifax has been offering decisioning solutions (also called enabling technology) for more than 10 years. The company has 700 customers in the US using its enabling technologies to assist them with making credit and similarly risk-based decisions. Consistent with industry trends, Equifax has strived to be more than just a data provider to businesses, particularly in an industry in which raw data is becoming a commodity. The company has focused on

providing its products not only across channels and industries, but also across the value chain, to offer solutions for multiple stages of the account acquisition life cycle. Figure 1 shows Equifax's definition of this life cycle.

**Figure 1: The Credit Account Acquisition Life Cycle**

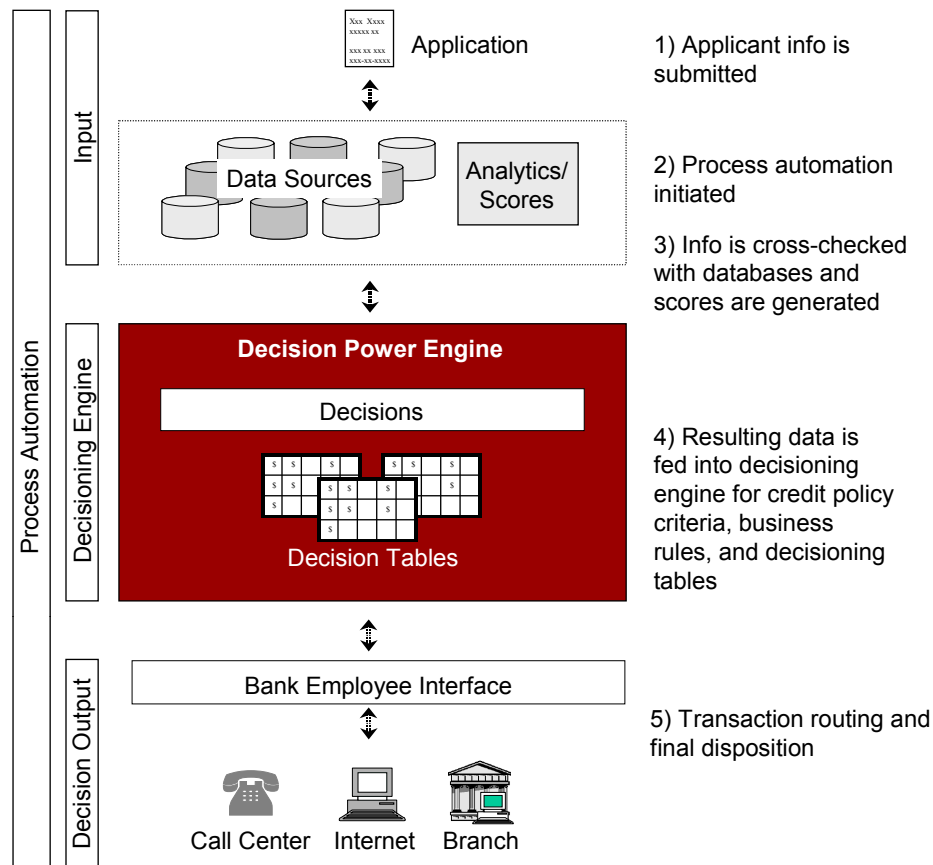


Source: Equifax

Decision Power has been Equifax's main decisioning platform since the early 1990s. It offers companies the ability to analyze new account applicants, improve fraud detection, and recognize new business opportunities for a particular applicant or customer. The platform encompasses Equifax's available data, scores, ID verification tools, and alert capabilities.

Decisions are guided by custom models and reports that incorporate a business's unique needs. Figure 2 shows an example of the Decision Power process.

**Figure 2: Equifax's Decision Power**



Source: Equifax, Celent Communications

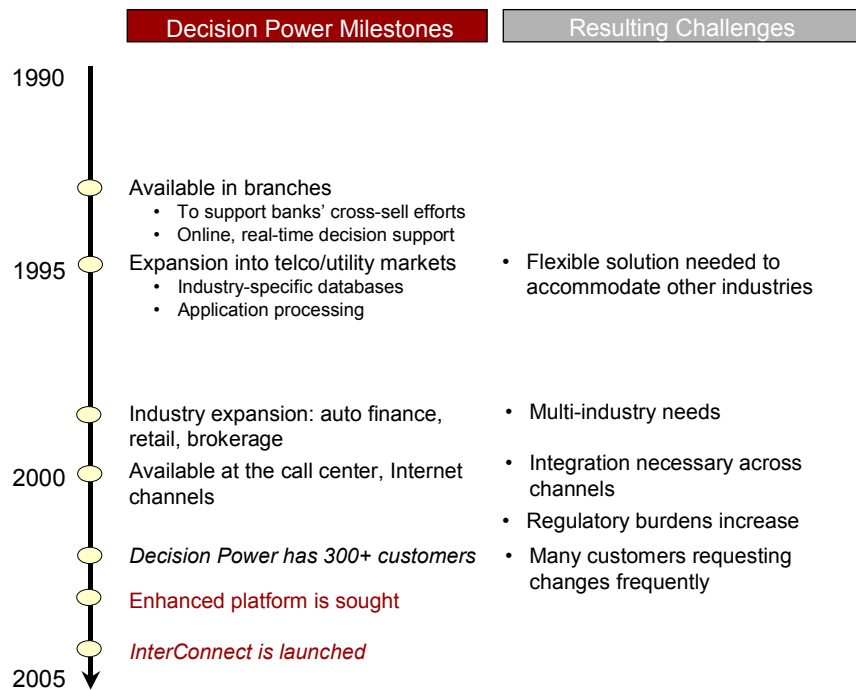
Decision Power can be customized at the point of implementation or when a customer decides to adjust the solution to accommodate a new strategy. To accommodate smaller firms that do not need or cannot afford such customization, Equifax developed an off-the-shelf version of the product called Equifax Decision Power Express.

## CUSTOMER TRENDS AND CHALLENGES

Since 1992, Equifax has expanded the features and capabilities of its decisioning solutions as well as its breadth across channels. In addition, the number of customers using these solutions has grown substantially. Over the years, a number of challenges have arisen. The significant increase in users has meant an increased demand for custom changes and unique features. This demand has been augmented by the dynamic nature of the credit industry.

Not only have marketing plans and business objectives changed for credit issuers; so have regulatory burdens. Financial institutions in particular have had to adjust their credit issuing policies and procedures to meet these needs, and in doing so have requested changes to their Decision Power platform. Another challenge has stemmed from the increased use of channels and the need to offer credit anytime, anywhere. Equifax wanted to find a way to handle requests for customization in an efficient and timely manner. In addition, Equifax sought a platform that would offer greater ease in integrating data sources.

**Figure 3: Growing Areas Of Focus And Resulting Challenges For Decision Power**



Source: Equifax, Celent Communications

## PRODUCT VISION AND GOALS

These industry trends and challenges prompted Equifax to seek a next-generation solution that could expand with the user base more easily, accommodate customer requests more freely and with little need for recoding, provide a user-friendly front end that would enable customers to interact with the application, and shorten the overall implementation time for its decisioning tools. In addition, the company needed a solution that would provide greater ease in linking data sources to the decisioning workflow.



**Table 1: Product Goals**

Type	Goals
Strategic	Integrate a significant inventory of decisioning and process automation capabilities into one integrated platform
	Leverage state-of-the-art technology to facilitate a robust product suite
	Improve customer experience by streamlining the deployment and change management process
	Provide greater customer control by enabling rules management at the customer level
	Develop a component-based product suite that could be leveraged individually or in aggregate to support customer business needs
Tactical	Improve time-to-revenue by reducing time-to-implementation
	Consolidate technologies and platforms for improved performance and operational efficiency
Source: Equifax	

To keep pace with industry trends, Equifax wanted to build a new platform that would further assist business users with automating the decisioning process and credit life cycle. Knowing that next-generation solutions are created on open systems and efficiently manage traditionally inefficient processes, Equifax needed to combine its decisioning capabilities into an even more robust and consolidated platform. Ultimately, Equifax realized that it required a product that could:

- Enable the deployment of its business solutions.
- Automate the transaction life cycle for banks and issuers.
- Respond quickly and efficiently to customer requests as they react to market dynamics.
- Leverage the firm's analytic capabilities.
- Create and manage new risk strategies.
- Integrate both internal and external data.

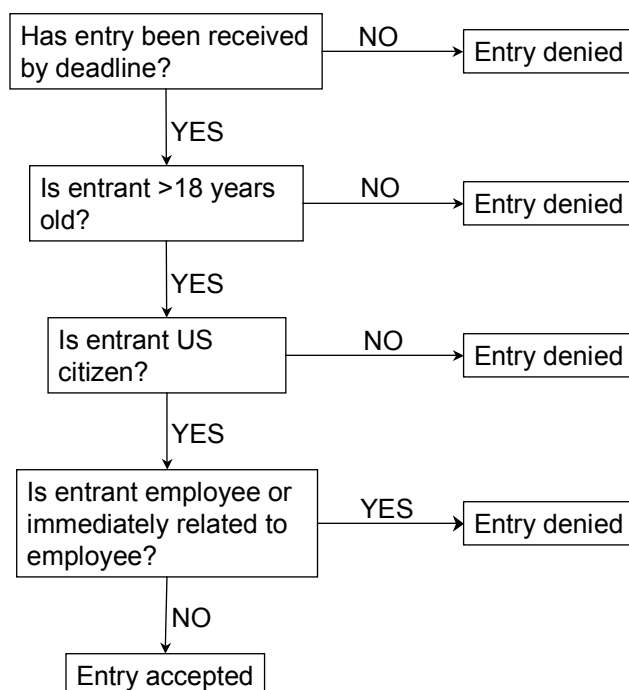
In early 2002, Equifax started to consider its options and potential paths for achieving its goals. Leveraging a business rule management system (BRMS) to develop a new platform was among the company's top options.

## LEVERAGING BRMS TECHNOLOGY

### BACKGROUND AND TERMINOLOGY

Rules engines exist in many applications, as rules define the framework for processes. Applications used for CRM, lending, fraud detection, and compliance are apt to have an integrated rules engine. The complexity of a rules engine is linked directly to the complexity of the task at hand. For example, an engine used in determining a consumer's eligibility for a contest will be simpler than one used for determining eligibility for an automobile loan. Figure 4 shows a simplified example of the decision process used when determining the eligibility for a contest. As the workflow becomes more complex, process automation becomes necessary to ensure consistent delivery of the correct outcome as soon as possible. A teenage computer whiz could write an algorithm for the simplistic example shown below. However, the process becomes increasingly complicated as the data sources being fed into the equation increase, the decision tables expand, and the steps and thresholds change within the process.

**Figure 4: A Decision Tree**



Source: Celent Communications

Business rules engines (BREs) were developed to help facilitate and execute these rules. They provide a flexible framework in which to automate these workflows so that the rules can be adjusted with relative ease as the needs of a business change. BREs have been around for several years and are considered a decision-centric solution. In contrast, a business process management (BPM) solution is process-centric, focussing on the workflow around a given process. BPM enables companies to automate, analyze, and monitor workflow-related tasks inherent in processes. For example, a BPM guides an application through a series of steps, whereas a BRE guides the application through the rules (i.e., decisions) that determine these steps.

Over the past few years, BRE providers have expanded these platforms to include tools that manage the entire rule life cycle. These platforms move beyond rule execution to assist in the modeling, testing, deployment, and maintenance of these rules. In addition, these platforms allow for a more user-friendly environment for non-IT personnel. Recently, providers have adopted the term “business rule management systems” (BRMS) to describe these enhanced platforms. This has created some confusion in the market, since “BRMS” was coined well after these new platforms became available. By default, the new platforms fell under the title of “BRE,” and this term is still used by some of the leading industry providers that are offering very similar solutions to those now labeled “BRMS.” However, we are seeing an increasing number of vendors adopt this new label. For the sake of clarity, we will define a BRMS as having the functionality of a BRE (e.g., a rule execution engine) in addition to the advanced rule management features.

## UNDERSTANDING A BRMS

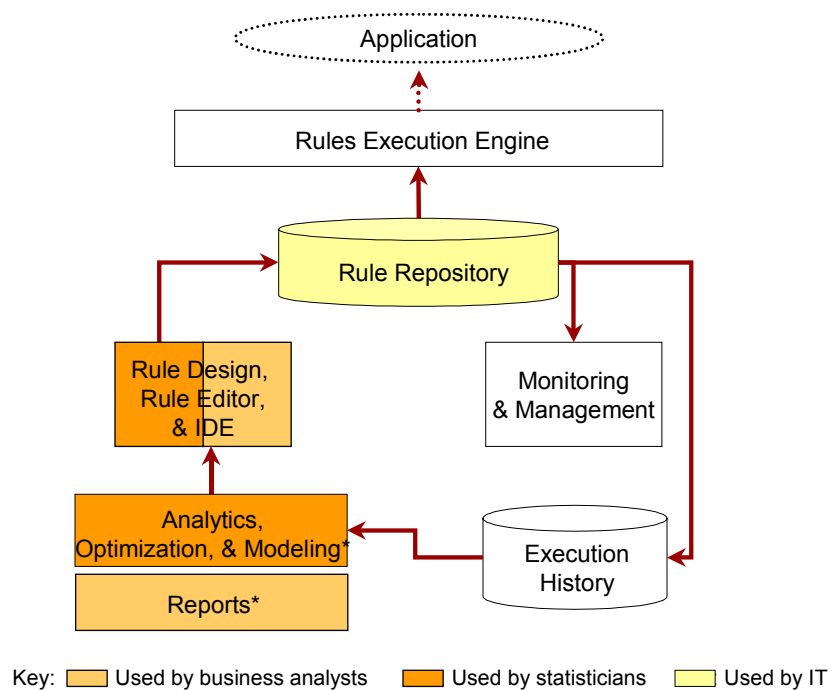
A BRMS adds decisioning capabilities to applications and workflow-type processes. The technology provides various tools for writing, deploying, and managing business rules throughout their life cycle. These tools are geared toward both business and IT users, enabling both types of users to add, delete, or modify rules through permission-based access. Additionally, a BRMS enables users to create rule-based scenarios and test rules to determine their impact on the overall process before moving the rules into production. Users can also maintain an audit trail of the rules, allowing them to keep tabs on when a rule is created, which rule expired, and who created a particular rule. Additionally, users can store all the rules in a central repository for greater efficiency.

Business users, often with the input of analysts, typically determine the rules in a given process. These business users must then work closely with IT personnel to integrate them into the application or rules engine. At many firms, this often leaves business users at the mercy of IT when it comes to making seemingly simple changes to a given process. BREs put some of the control back in the hands of business users by separating the business rule (i.e., the strategy) from the application code and by displaying the rules in something closer to plain English. If you can string an if/then statement, then you can write a business rule. An

example: “IF a customer has a gold account, THEN he or she gets a gold card, or ELSE he or she gets a standard card.” Another example: “IF loan type is ‘first mortgage,’ THEN occupancy status must be principal residence.” These two aspects—separation of workflow and clarity—make it easy for business users to write their rules, as opposed to carefully coding them, and eliminates the hassle of coordinating development time with IT to execute these changes. Rather, IT can later be prompted by the engine to make further changes if necessary. Although IT certainly remains involved, the process becomes more efficient and creates fewer headaches for all involved.

Figure 5 shows the relationships among the seven major elements in a complete BRMS solution.

**Figure 5: Elements Of A Complete BRMS Solution**



Source: Celent Communications

Note: Analytics, optimization, and modeling is a component not always present with a BRMS. Reports are usually an add-on feature.

A breakdown of the seven elements:

- **Rules execution engine:** The core BRE feature. It controls and directs the selection and execution of rules within applications and processes.

- **Rule repository:** Provides version control and contains a complete set of prior and current rules. The record for each rule should contain information about authors, dependencies/interactions with other processes, and other searchable information.
- **Rule design, rule editor, and integrated development environment (IDE):** A packaged programming environment that allows business and/or technical users to design, change, and integrate rules from a single user interface.
- **Monitoring and management:** Allows managers to view the status of rule execution. There should be some ability to make real-time changes in rule selection and execution order.
- **Execution history:** Contains a complete record of all executed rules.
- **Reports:** Usually an add-on feature available through the integration of reporting software.
- **Analytics, optimization, and modeling:** Permits the construction and testing of alternative rules and scenarios. Rules are often designed through analysis and modeling of large amounts of quantitative data. Successfully tested rules can then move into production. This component is not always considered a standard part of a BRMS solution and may be an add-on feature.

As shown in Table 2 (page 14), the potential benefits of a BRMS are substantial. For rules that seldom change, a BRMS is overkill. However, for processes that are either complex or have many dynamic rules and many outcomes, it can be a very useful tool. It can ensure that rules are carried out properly with little risk of human error. A BRMS can also realign business strategies with IT objectives by putting control of these strategies back in the hands of business users. This is particularly important for financial institutions given their dynamically competitive market, changing compliance and regulatory requirements, and need to adjust to the latest trends in fraud. Ultimately, a BRMS adds efficiency and flexibility to a complex process that is often used for mission-critical applications.

**Table 2: Benefits Of Using A BRMS**

Benefit	Description
<b>Control is returned to business strategies</b>	Business strategies can be handled directly by business strategists, not IT. Rule management capabilities are extended to business users by giving them the ability to make changes directly.
<b>Improved time-to-market</b>	Rule changes may happen in real time or in just a few days instead of months, given the ability for business users to make changes directly to the system rather than re-placing a request with IT, which then would have to recode the engine.
<b>Better decision-making</b>	Business users may test their strategies in an offline environment and then implement the best ones.
<b>Improved operational efficiency</b>	Automation of rules, as opposed to recoding, involves less human interaction, which in turn decreases the chance of human error.
<b>Audit trails</b>	BRMS can track how a set of rules have changed over time.
<b>Greater customization</b>	More control over a given process allows for greater customization.
<i>Source: Celent Communications</i>	

Table 3 provides just a sampling of how BRMS are being used across industries today.

**Table 3: Sampling Of BRMS Applications Across Industries**

Industry	Application
Banking	Campaign management tool to determine customer eligibility for credit cards and create appropriate offers.
Financial services	Compliance automation tool used to streamline increasingly complex regulations and internal protocols.
All	Tool for validating and routing data in a billing system and reporting related fraud.
Securities	A call center application designed to automate a trading system. Rules are used to enforce SEC regulations and determine dollar limitations.
Insurance	Used to handle underwriting and pricing and to determine the risk of a particular applicant. May also be used to process claims.
Manufacturing	Production planning tool used to implement changes in production in less time.
E-retailers	Platform for managing and updating business rules for buying and selling online.
Lending	Used to assist with the many rules associated with the lending process, from origination and underwriting through servicing.
<i>Source: Celent Communications</i>	

Particular rule categories or workflows that are likely to benefit from a BRMS are highlighted in Table 4.

**Table 4: Relevant Rule Categories And Workflows**

Type of Rule	
Pricing	Regulatory and compliance
Risk assessment	Discounts
Billing	Eligibility determination
Campaign management	Anti-money laundering
Fraud	Data validation
<i>Source: Celent Communications</i>	

As mentioned, BRMS are certainly not for every business or practice in the market. Their cost can be relatively high, and implementing them can be a cumbersome or resource-intensive task, particularly for businesses whose existing rule set is so deeply integrated into the current solutions. As with any implementation, much depends on the scope of the project and the level of customization needed to complete it. From an implementation standpoint, integrating a BRMS takes a few weeks on average; however, fully deploying an application or process can take anywhere from a few months to well over a year. A lot depends on the size of project, the different technologies a company is trying to bring together as part of its overall architecture, and whether the rules are hard-coded, decentralized and residing in multiple locations, or in paper format. Determining what those rules are and how they work with one another could add to the overall time frame. The skill level and availability of the internal resource (both from an IT and a business standpoint), as well as budgeting of the project, are additional considerations. Ultimately, BRMS are best used in applications that meet at least one of the following conditions:

- There are many rules flowing through the equation.
- The rules change frequently.
- Scalability is likely to be an issue given the number of times the application will be used.

## BRMS FIT WITH EQUIFAX'S GOALS

Equifax sought a solution for application processing and credit decisioning that included steps for ID verification, risk assessment, compliance, and credit score analysis, among other things. As previously mentioned, processes would benefit from a BRMS. The company also needed a solution that would provide greater flexibility, a user-friendly interface, and the ability to automate the decision process more quickly (including implementation time); a

BRMS seemed like a natural fit for its decisioning platform. For Equifax, the greatest selling points of a BRMS were:

- **Declarative tool:** The company wanted a tool that allowed users to concentrate more on defining the input and output rather than the program steps required in a procedural language. Essentially, Equifax sought a business user–friendly language that could be easily translated.
- **Long-term maintenance:** Equifax wanted to make sure that users could change business rules down the road when needed.
- **Improved time-to-market:** Equifax wanted to offer its customers the ability to change rules quickly. This is particularly important given the regulatory and competitive dynamics of its target industries.
- **Improvement in performance:** In terms of maintenance, Equifax wanted a product that could centralize rule definitions so that rules could be changed easily. A BRMS' central rule repository could not only accomplish this but also ensure that when a definition was made, it was made correctly throughout the system.
- **Allowance of componentized rules:** The technology deployed by BRMS enables users to add a group of rules with little concern for how they will be used in conjunction with one another. The technology also allows users to input a series of disjointed rules and then optimizes the way in which they are used together. This efficiency was very appealing to Equifax. Because of it, business users are not at the mercy of the developer.

Given the fit with Equifax's goals, the company decided to go ahead with a BRMS implementation.



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## DESIGNING AND BUILDING THE ENGINE

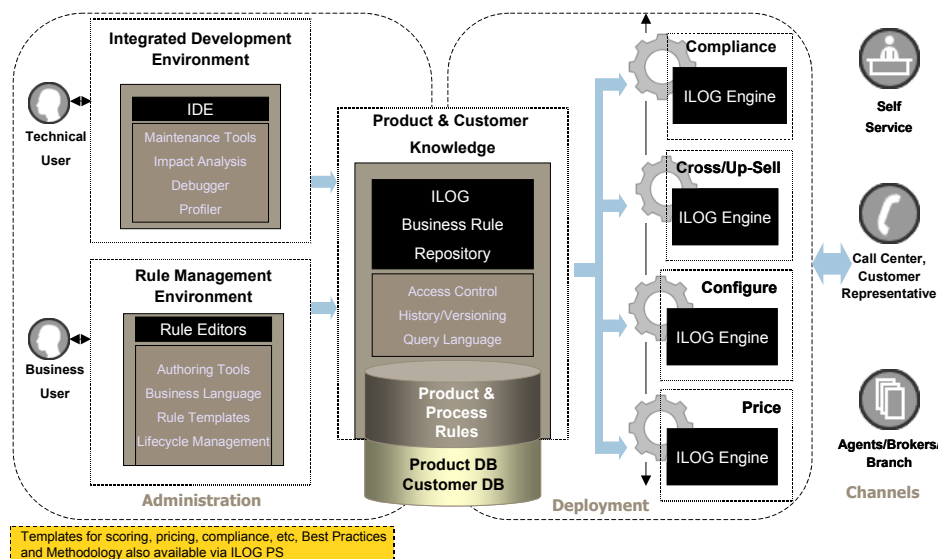
### BUILD VERSUS BUY

As with designing any product, Equifax weighed the option of buying a BRMS against building one. However, the answer came more quickly than for most products given the nature of the engine. Once most companies come to the conclusion that a BRMS is right for them, they are likely to default to the buy decision. This decision comes quickly given the complexity of the engine and the availability of robust, ready-to-install third-party solutions. In addition, and perhaps most importantly, these engines are usually used for critical decisioning parts of the business that have little, if any, room for error. Therefore, there are tremendous benefits and much less risk associated with choosing a solution that has already been proven by the market.

### VENDOR SELECTION

When Equifax began its search for a third-party solution in early 2002, there were several firms providing BRMS solutions. Firms like AMS (now part of CGI), Computer Associates, Pegasystems, and Fair Isaac, among others, have engines available for license. Equifax considered many of these third-party solutions but ultimately chose ILOG's JRules.

ILOG (NasdaqNM: ILOG) is based in Mountain View, CA, and was founded in 1987. The company has grown significantly and now provides its business rules engine to more than 2,500 clients worldwide. Its clients include lenders, banks, insurance companies, securities firms, and telecommunications providers, among others. Figure 6 on page 18 depicts the architectural framework of ILOG's JRules.

**Figure 6: Architectural Framework Of JRules**

Source: ILOG

Although Equifax closely considered other solutions, Equifax chose JRules primarily for the following reasons:

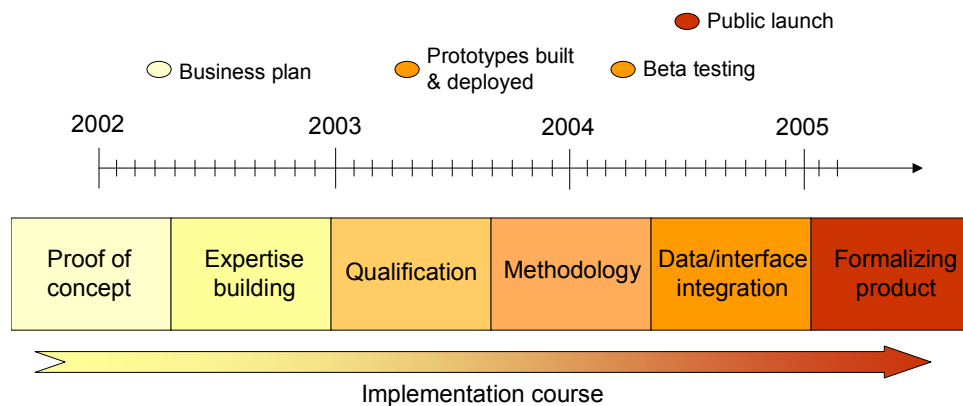
- JRules had the descriptive rules model that Equifax was searching for.
- ILOG proved to be a stable vendor with a substantial customer base. Not only had ILOG won many customers that were in the same industry as Equifax, but Equifax was confident that the product would be supported going forward and that ILOG would continue to offer enhancements.
- ILOG's performance ratings were very good.
- Equifax appreciated ILOG's willingness to work with the company, especially since Equifax sought a unique implementation.

The last two reasons tipped the scale for Equifax. Equifax needed a flexible solution as well as a flexible vendor. The vendor needed to meet Equifax's many needs and work well with the company's team, given that the platform would ultimately perform applications critical to Equifax's business. In addition, it was imperative that the vendor be able to perform at the desired level given the demands of both Equifax and its customers.

## IMPLEMENTATION

Equifax began its search for a solution in late 2002. The overall process of implementing the BRMS, from forming a business plan and selecting a vendor to rolling out the new platform publicly, took approximately a year and a half. Figure 7 outlines the steps taken during the implementation as well as the time frame for each.

**Figure 7: Implementation Timeline For Equifax's BRMS Deployment**



Source: Celent Communications, Equifax

Overall, Equifax deployed a six-point implementation process, as illustrated above. A breakdown:

- Proof of concept:** Equifax mapped its needs and goals to the capabilities of both a BRMS in general and ILOG in particular. Equifax examined the needs of one very large Decision Power customer to see if they could be met with the new platform. Equifax made sure that more than 80 percent of the system requirements and fully 100 percent of the rule requirements were met, and that the transactional throughput level was at least as good as Decision Power's. In addition, the company wanted to ensure that the enhancements it identified on the new product road map were met. Much of the beta testing took place during this stage.
- Expertise building:** Although ILOG would make its experts available down the road, Equifax recognized the importance of building expertise in-house. Therefore, the company spent much time becoming familiar with ILOG's solution and training internal professionals that would not only assist with the integration, but

maintain the system down the road. Business analysts were also brought in because of the platform's use of declarative language.

- **Qualification:** Equifax ensured that the product design met its specified performance, quality, and reliability requirements. For example, transaction response times needed to be sufficiently fast and system availability had to address the demands of Equifax and its customers. In addition, the solution needed to exist in a multi-site and multi-system environment that is managed by an operational outsourcer (IBM).
- **Methodology:** Equifax explored strategies for leveraging the platform.
- **Data/interface integration:** The data sources used across Equifax's decisioning products needed to be remapped to the new platform.
- **Formalizing the product:** Before publicly launching the new platform, Equifax finalized pricing, product rollout, and marketing strategies. The final feature and functionality set was also determined.

It took six to eight weeks for two professionals to integrate JRules into Equifax's architecture and an additional eight weeks for one specialist to develop and integrate the Web rules editor that would enable Web-based access. Overall, it took Equifax a year and a half to develop the new platform that would leverage the BRMS. In addition to the BRMS, Equifax incorporated a data transformation engine to assist with integrating multiple data sources as well as a process logic engine that facilitates account acquisition processes. Both engines work closely with the BRMS. More than 40 Equifax technicians, software developers, and business personnel were involved throughout the entire project. This includes the integration of multiple platforms (e.g., application processing and credit decisioning) onto one platform, as well as the integration of JRules.

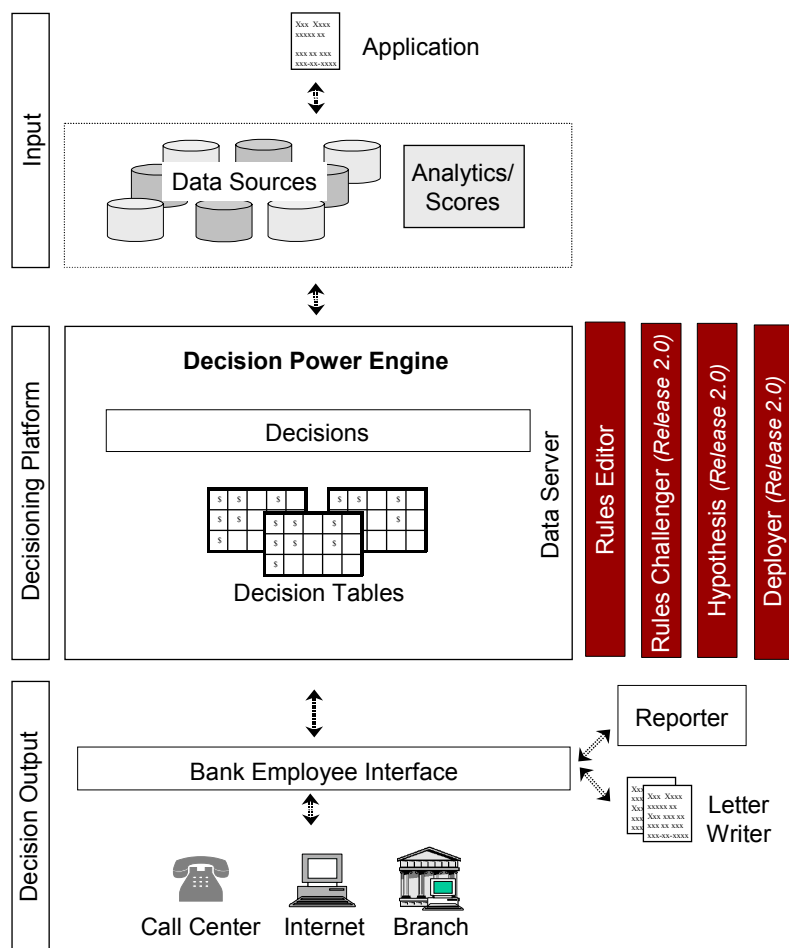
## END RESULT

### INTERCONNECT

The implementation of ILOG's JRules resulted in an ASP offering called InterConnect. Intended to be the next generation of Equifax's decisioning products, particularly Decision Power, InterConnect combines the features and functionalities of the legacy products with the flexibility and user-friendly rules design framework afforded by a BRMS. Equifax also integrated a few value-added features, such as the ability to access the rules via the Web using a Web-based editor, and enhanced reporting capabilities using Crystal reports.

Figure 8 depicts the architecture of InterConnect.

**Figure 8: Components Of InterConnect**



Source: Celent Communications, Equifax

Note: Components shaded red are supported by BRMS technology.

Following is a breakdown of each InterConnect component:

- **Application engine:** Processes applicant's information from the point of entry through the decision process and disposition. It is capable of supporting multiple work queues and real-time or batch processing. The engine prioritizes the involved applications, incorporates an exception management tool, and works with legacy systems, call centers, document vendors, and billing systems.
- **Decision Power engine:** The product around which InterConnect was built. Although all features of the old engine remain, most have been expanded or made more robust to support a more complex workflow. The Decision Power engine continues to offer users access to their data sources—including credit reports—and the ability to generate cross-sell, upsell, and downsell offers.
- **Data Server:** A storage facility that allows each customer to store its application, decisioning, and other records in a searchable format.
- **Rules Editor:** This tool meets Equifax's goal of enabling users to change rules often without direct interaction with developers. A business user is able to log into a user-friendly interface, change the intended rule set, and log off the system. This rule change is then routed to a system administrator who approves the change, which can then be automatically rolled into production. This two-step process allows for dual authority, ensuring changes are not implemented incorrectly.
- **Hypothesis:** Enables users to deploy what-if analyses to test the rules in an offline environment before actually deploying them or running champion/challenger testing.
- **Rules Challenger:** Similar to a what-if analysis, this component allows business users to test a given rule set (e.g., the one currently deployed) against another in a production environment to determine which is better. In other words, this component allows for champion/challenger testing.
- **Deployer:** A tool for deploying scores based on a customer's own scorecards or models.

- **Data sources:** As mentioned, InterConnect allows users to integrate a variety of data sources, customize their solution set, and choose the data sources right for them.
- **Reporter:** Gives users real-time access to the system and enables them to pull canned reports as well as custom ones. This accomplishes another goal for Equifax: offering users on-demand reporting capabilities with a click of a button. This is an improvement to the legacy platforms, which require Equifax to code for various custom reports.
- **Letter Writer:** Incorporates the final outcome of the rule set, including local print capabilities, and generates documents (e.g., welcome, disclosure, adverse action letters). Letter Writer can integrate with a bank's existing document management system or link to third-party document management providers.
- **Customer interfaces:** Although InterConnect is available via direct feeds, it extends its availability via a Web browser.

As Figure 8 on page 21 indicates, several components were launched with the second release of InterConnect. This second release was made available approximately six months after the initial one (spring 2004), and Equifax is already planning future releases. Additional data sources will be added; so will new features, such as a customer workbench. The addition of these modules further demonstrates one of the most desirable traits of a BRMS: the ability to add additional components to a BRMS platform at a later time.

Thanks to the integration of BRMS technology, Equifax has developed a rather unique service offering for its customers. The company has filed patent applications covering various aspects of the InterConnect solution.

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## CONCLUSION

### ACHIEVEMENTS

In sum, Equifax's installation of a BRMS enabled Equifax to:

- Simplify the rules process for its customers, particularly for business users.
- Create a flexible workflow with a user-friendly interface.
- Offer InterConnect as a Web-based, ASP application. This achievement is not standard for all BRMS implementations.

Ultimately, the installation has given Equifax the enhancements it was looking for and the ability to implement new ones down the road. Customer feedback surrounding this new solution has been positive, and the firm is pleased. Customers are now able to implement changes to their business rules in real time or in a few days instead of weeks or months. More importantly, InterConnect enables businesses to deliver a strategy that is consistent enterprise-wide and capable of being modified over time.

### LESSONS LEARNED

Before the product launch, there were times that Equifax and ILOG needed to modify features and functionalities to better meet the needs of the market. This was one instance that made Equifax glad to have met its criterion of selecting a flexible vendor. Another important factor was finding the right personnel to staff this product going forward. Equifax needed employees with a deep understanding of BRMS as well as company products. The tight integration of the BRMS with a firm's existing product suite requires that employees have both an understanding of the BRMS itself and an understanding of the company's products. Equifax found that a balance of legacy employees and new employees was paramount.

Based on Equifax's experience with deploying a BRMS and the steps that it took to make sure the implementation was a success, the company recognized that several criteria should be considered before embarking on a BRMS implementation:

- **Consider the big picture:** BRMS are not stand-alone products, so the ease with which they can be integrated into a company's overall agenda and highlighted product suite must be taken into consideration. Companies should request application programming



interface (API) documentation from third parties to assess the engine's compatibility.

- **Ease of use:** The importance of this point depends heavily on the goals of the BRMS implementation. Equifax wanted a solution with rules that could be changed by the business user with little developer involvement.
- **Research and development:** One of the major advantages of choosing a third-party solution could be the research and development commitment of that vendor. Therefore, it is prudent to ensure that the vendor chosen will both support and invest in the product going forward.
- **Firm commitment:** Product and vendor characteristics aside, it is important that the company implementing the solution is committed and has taken the necessary steps to formulate goals and assess its skill set. Much time will be wasted, and a bad decision may be made, if the company has not done so before approaching vendors. A company should have both a short-term and long-term plan (extending as far out as 10 years) and ensure that the goals and resources of its business and IT units are aligned.
- **Caveat emptor:** As always, those who do their homework will be able to see through the multitude of bells and whistles in the market. Companies considering a BRMS must look past the jazzy demos and seek concrete evidence that the vendor can deliver on its promises.

Since Equifax embarked on the path to integrate a BRMS, we have seen a number of companies integrate these systems into their core product offerings. Vendors have used them to develop more robust platforms capable of handling the rigors of their decisioning capabilities. We expect to see third-party providers continue to embrace these platforms as they seek competitive solutions and can distribute the cost of integration and maintenance across their customer base. We also expect to see businesses that operate in dynamic environments—like financial services—embrace these systems internally to accommodate more sophisticated marketing strategies and greater compliance and regulatory measures. The ability to deliver a consistent strategy across the enterprise is certainly appealing. Even more appealing is the ability to place control over business strategies back into the hands of business users. Given these industry-proven benefits, we expect BRMS to form the backbone for many solutions to come.

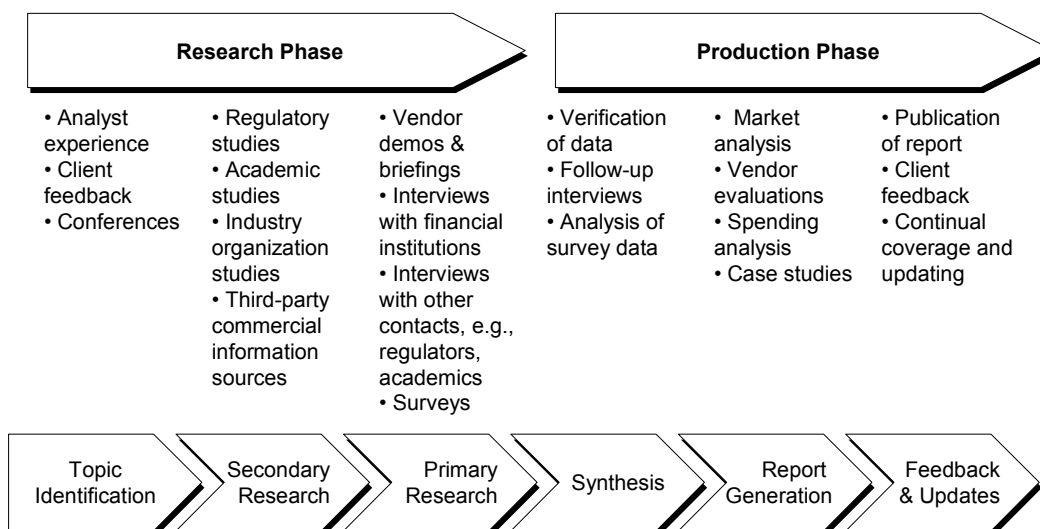
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