

# UNDERSTANDING THE BENEFITS OF BUSINESS RULES MANAGEMENT SOFTWARE IN AN OPEN SOURCE ECOSYSTEM

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Business rules management software (BRMS) is one of the rarest of information technology (IT) concepts. BRMS provides exactly the functionality that the acronym implies. There is no mixing and matching of obtuse buzzwords. There is no misapplication of the terms "management" or "system." BRMS is not an acronym that could mean multiple things.

*BRMS can mean different things to people in the same organization, so it's important to agree on the definition among yourselves.*

But BRMS can mean different things to people in the same organization.

So it is important to agree on the definition among yourselves. And to regularly question which business rules are most important for your organization to manage.

The questions you should ask yourselves on a regular basis as you probe BRMS needs more deeply include:

- Do your business rules need to be automated for the first time or updated from a major project put in place 10 years ago in reaction to Y2K?
- Do you have rules in place for both monitoring the key performance indicators (KPIs) you have decided are critical to your operation as well as for managing your organization's more mundane, transactional, collaborative, and even personal-productivity workflow?
- Do the rules need to be hidden away behind complex IT restrictions for security and regulatory/governance reasons or can they be made more visible to you and other managers and workers in your organization?
- To what extent can you use open source terms and conditions for rules management and thereby benefit from the advantages of open source software, content development, and culture?

*IT Investment Research found that the major thing to remember is that BRMS functionality is about business, not about technology.*

Based on a review of the public record and interviews with Red Hat's JBoss Enterprise BRMS users and community participants, IT Investment Research found that the major thing to remember is that business rules management functionality is about business, not about technology.

As you regularly answer and re-ask/re-answer the above questions, IT can help you develop, adapt, and manage your business rules more quickly and more effectively.

Some BRMS is basic and provides minimum business policy and rules development, ease of use and auditability features, and change management functionality to support your need to constantly re-examine the above questions. Both initial rules development and change management features should include a simulation/modeling facility.

More advanced BRMS will help you change rules and rule sets dynamically, including rules that affect your interaction with partners, such as customers/clients and suppliers.



A key feature of some BRMS is to make business rules highly visible throughout the organization and to overcome any cultural issues that might keep your entire organization from participating.

The following sections of this whitepaper look at BRMS-related definitions, usage scenarios, cultural issues, benefits, and standards efforts as well as the relationship of BRMS to the open source culture.

But, remember, the business rules are yours.

### ASK YOURSELF: WHAT DOES BRMS MEAN TO YOU?

Although the term BRMS is self-explanatory, a definitional exercise is important in order to place the term in context.

*It doesn't matter if you received your business management education at Wharton or by stocking shelves at Wal-Mart.*

For starters, the term "business rule" does not have an IT dependency. You are running your business or enterprise today by a set of business rules, whether or not you have BRMS. This is true whether you are using the latest 2010 cloud-based computing architecture, a mainframe from the 1970s, some IT from between those two eras, or no IT at all. It is the case whether you pride yourself on "managing by walking around," or "flying by the numbers." It doesn't matter if you received your business management education at Wharton or by stocking shelves at Wal-Mart.

The above view is philosophical. At a more detailed level, IT Investment Research found that BRMS includes, at minimum, a repository for rules, tools for both technical developers and business experts, and an accompanying runtime environment. That runtime environment often includes a business rules engine (BRE) in common definitions.

However, although that definition is technically accurate, thinking of the BRE as too closely aligned with BRMS is actually a drawback to understanding and using business rules in many situations because many kinds of software, not just BRMS, have BREs. Think of BREs and BRMS separately, even though BRMS have BREs.

Professors **Anca Andreescu** and Marinela Mircea<sup>1</sup> of the Academy of Economic Studies of Bucharest have developed an interesting taxonomy to help overcome this confusion between BREs and BRMS.

Their study covered how business rules are identified, specified, implemented, and managed. The key to the academicians' view is their guidance as to "where to implement business rules within an application, in order to minimize the effort required modifying the rules."

*In other words, think about the business, not the technology.*

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A business rule typically is expressed as follows:

"IF certain events occur or conditions exist, THEN certain events should happen, or ELSE other events should happen."

Each IF-THEN-ELSE statement inferring some action is a business rule. (That is why a BRE is often called an inference engine.)

<sup>1</sup> <http://revistaie.ase.ro/content/52/07 - Andreescu, Mircea.pdf>



For both IT and cultural reasons, organizations have often written and rewritten (or if you prefer, coded and re-coded) the same IF... THEN relationships over and over again when the organizations could have re-used the same rule multiple times.

That is another reason why it is important not to think only of the run-time aspects of business rules.

**Consider the definition in InfoWorld<sup>2</sup>**, which explains that a BRMS is the container for the business logic, the place in which business analysts “code” in a simple, English-like language. Although this IT Investment Research whitepaper is primarily about free-standing BRMS, all business process management systems (BPMS), both toolsets and complete packaged applications, have an implicit or explicit BRMS.

Just as it is important to distinguish between a BRE and BRMS, it is also important to distinguish between BPMS and BRMS. See Figure 1 for an illustration of the sometimes interdependent, sometimes independent interrelationship of BRE, BRMS, and BPMS.

*The real benefit of a BRMS is to overcome the problem of multiple BREs in multiple packaged applications and BPMS toolsets.*

Separately, some analysts and IT advisors feel that BRMS is useful only to give business users and analysts the ability to make routine changes and updates to critical business systems in order to free IT resources to concentrate on higher value-add projects and initiatives. Don't look at BRMS this way either.

The real benefit of a BRMS, if you can eventually narrow down to at least one BRMS approach, is to overcome the problem caused by multiple BREs in multiple packaged applications and BPMS toolsets: too many rules.

**Business rules guru James Taylor<sup>3</sup>** said, “With a BRMS, the total cost of ownership for managing business applications software is lowered by (both) reducing programming requirements and delays in implementing operational rules.”

This applies to business applications acquired as a package or all the variety of in-house developed business software in a software ecosystem. The first benefit noted by Taylor addresses the re-use vs. duplicate coding issue, but it is the second benefit—faster implementation—that is more important.

As Taylor implies, there is both an opportunity cost recovery/savings benefit in being able to adapt more quickly to changing requirements as well as the benefit of being able to move more nimbly.

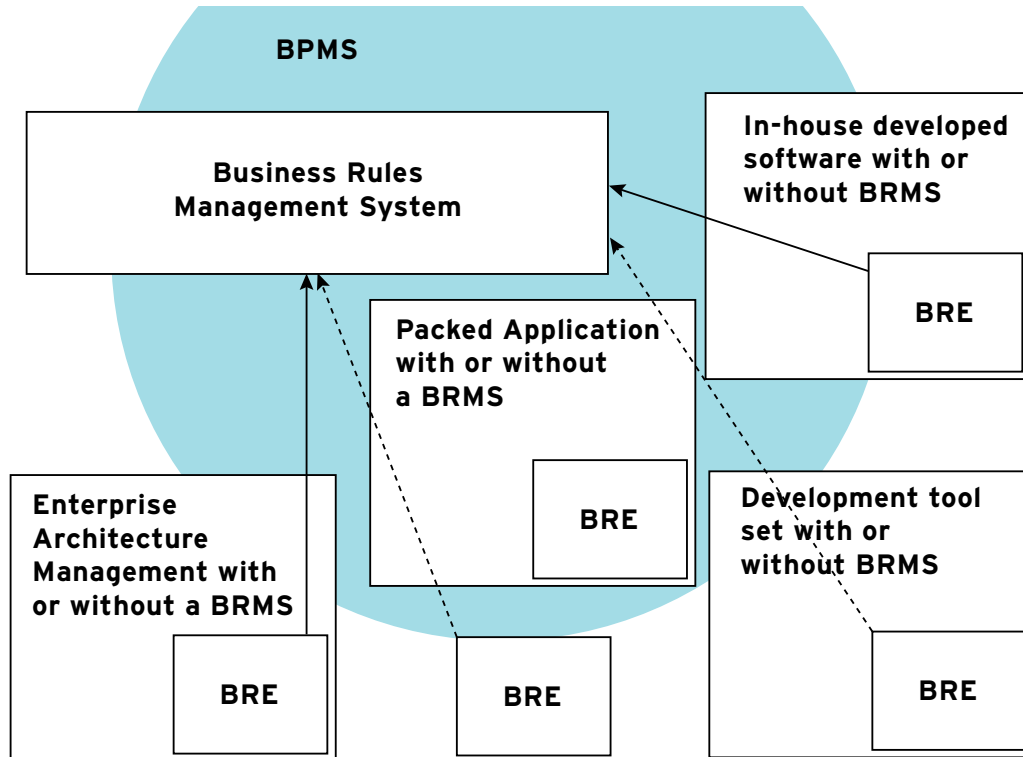
And IT Investment Research believes it is important to remember that BRMS is not about process, it's about the rules the process follows.

<sup>2</sup> <http://www.infoworld.com/t/business/business-rules-management-systems-548>

<sup>3</sup> <http://www.edmblog.com/>



FIGURE 1: BRMS ECOSYSTEM



#### ASK YOURSELF: WHO ARE YOU IN RELATION TO BRMS?

The above philosophy is especially important in service-oriented organizations and enterprises where the intellectual property walks out the door every night and where the rules make a difference in competitive differentiation. The more rules there are, the more complex they are, and the more often the rules change, the more important you will find a single BRMS for better governance and to reduce organizational complexity.

So every organization will not use BRMS in the same way. Depending on your company's or organization's business objectives, size, and industry, it is just as likely that the BRMS you most depend upon will be chosen by your systems integrator, OEM, or another IT or IT-enabled services supplier, rather than by you or one of your employees. Look at some of the possibilities:

- **You are the CIO at a large manufacturer with a broad IT staff.** Your staff might actually use BRMS in order to implement key functions, especially software-enabled functionality that your C-level peers feel adds differentiation to whatever your company manufactures. Most likely you also use packaged software for less differentiating business processes, such as general accounting, procurement, and so forth (and that packaged software will include its own BRMS in some form). It is also likely that you will use an IT-enabled business service for needs such as payroll processing. As with all the other software in your firm, it is important that you understand how these multiple capabilities integrate.

- **You are an IT staffer at a small wholesale parts distributor supporting a regional industry.** You are unlikely to use BRMS purchased directly but depend instead on the BRMS built into one or more pieces of packaged software or Software as a Service (SaaS) offerings delivered to your organization over the Internet. Their business rules let you keep in close contact with the manufacturers you represent and with your local customers. (If instead your wholesale-based company distributes parts worldwide to multiple industries, you might want to consider your own BRMS because your business is more complex.)
- **You are a line manager in a large services provider in a highly-regulated industry.** The direct use of BRMS by your IT staff occurs less often because services companies are more likely to depend on IT-enabled business services than manufacturers and wholesale distributors are. If, however, you are a large financial services supplier, where IT often provides competitive differentiation, you are very likely to use multiple BRMS. Smaller financial services providers, such as community banks, however, as with all smaller organizations, typically depend on IT third parties for a BRMS.
- **You are a civil servant at a national government agency** (or an agency of a large province, state or city). Probably no organization has more defined “business rules” than a government agency or department. Except, of course, the rules are called laws. This gives the government agency a better opportunity than most other organizations to manage its rules on a structured automated basis in order to provide citizens, voters, and others better service. And it actually makes it easier to get citizen/voter involvement in government if applied appropriately.
- **You work for a systems integrator, OEM, or other part of the IT ecosystem.** Third-party developers and other participants in the IT ecosystem have the most direct contact with BRMS. Most will have a favored provider of BRMS because there is a moderate learning curve, as with any type of software, and the third party needs to concentrate on his or her clients' changing rules and not on constantly changing his or her tool set. In particular, using a consistent BRMS makes it easier to deal with the clients' business analysts and removes one step in the quality assurance cycle normally associated with software development.

*There is a built-in conflict between an end-user organization's needs in terms of a BRMS and the third party's needs.*

However, as the bullet directly above explains, there is a built-in conflict between an end-user organization's needs in terms of a BRMS and the third party's needs. This is true even when the third party is a long-time trusted advisor on IT needs and wants. As soon as possible, the end user organization wants to narrow down to one BRMS.

The question is: Do you trust the third party's choice or is the third party willing to adopt your choice?

This is not a question to be answered quickly and without experience using multiple BRMS. But at some point, narrowing down to a favored BRMS is a major bridge that needs to be crossed.

### ASK YOURSELF: HOW DOES BRMS FIT IN THE BIG PICTURE?

Unfortunately the words “most depend on” are meaningful in the sentence at the beginning of the previous section because it is likely that you currently depend on more than one instance of BRMS. IT Investment Research believes that that is not the optimal situation.

To get to an optimal situation, it is important to understand your currently installed BRMS functionality. As illustrated in Figure 1, some BRMS and associated business rules might be built into a sophisticated ERP package or ERP software as relatively simple as QuickBooks. Or relevant BRMS functionality might not exist on your site at all but be off premise at a SaaS provider or outsourcer. BRMS might be freestanding or in a developer’s tool set. It can quickly become ubiquitous, and that is counterproductive if you are not careful.

To understand the integration of the above possibilities and how your business or enterprises might want to integrate implicit or explicit current and future BRMS functionality, take a look at the whole stack, not just the BRMS.

*BRMS software has a role both in the design of IT infrastructure as well in the bigger picture of business operations.*

BRMS has a role both in the design of IT infrastructure as well in the bigger picture of business operations. BRMS is likely sitting behind your enterprise architecture management (EAM) software, particularly if it is based on modern service-oriented architecture (SOA). In addition, BRMS (ideally but not likely, as noted above, the same one) has a role in your IT information lifecycle (ITIL) management. ITIL rules are the rules that your IT staff puts in place to manage the increasingly important business assets that are your IT investment.

Of course, BRMS has a pivotal place by definition in transactional, collaborative, and analytical applications. It also has a place in personal productivity software, such as a word or spreadsheet processor.

This is important to you from an enterprise or organizational perspective because computer scientists typically characterize all enterprise software, in its most simplistic form, as consisting of data management, a user interface, and logic. Therefore understanding your data management and user interface functionality is an integral part of understanding the logic capability built into your BRMS posture today.

For example, you do not want to be using software intended for data integration to manage your business rules. This was a common approach to computing two decades ago based on a database product’s stored-procedures functionality. In terms of data integration today, the goal instead is to be open to any data management capability, typically a different brand for all types of web content, another for structured tabular data in such enterprise applications as simple personal spreadsheets, and a third for unstructured data such as the content in emails, presentations, and documents.

Similarly tying user interface (UI) integration to business rules is becoming much more complex. UI integration in the past has usually meant answering a simple question about which browser or PC application you wanted to use in your business.

But increasingly mobile computing, different form factors as various as vehicle dashboards, tablets, RFID, and so forth, and other variations come into play.

*All the departments or divisions or separate organizations do not have to have the same business rules or the same BREs, but there is a great advantage in managing the rules together.*

The payback in using less BRMS comes when the answers to these three questions—data management strategy, user-interface choices, and logic type—apply across the enterprise. This is true especially after a merger and acquisition, and there is an even bigger payback across legal entities, such as with your customers and suppliers. All the departments or divisions or separate organizations do not have to have the same business rules or the same BRE brand, but there is a great governance advantage in managing the rules together.

The benefit of a well thought-out BRMS approach is that it will allow your IT group, SaaS provider, outsourcer, and so forth to work on your IT needs more efficiently because they can work more incrementally. In addition, with each new application or major application revision, the BRMS becomes more visible and gets exposed to customers, suppliers and top managers. Both benefits are critical because business rules change frequently and a BRMS-driven approach can keep IT out of the equation until it is needed. Instead, for example, the HR department makes rules changes when legal or other needs require them or the manufacturing department makes changes when customer demands or supplier shortages require them.

This staged incremental approach both raises and fulfills ultimate end user expectations relative to enterprise applications as they begin to see how the entire set of business rules is integrated. Such an approach also allows users to better anticipate total cost of ownership (TCO) and realize more quickly any expected return on investment (ROI).

#### ASK YOURSELF: WHAT ARE THE BENEFITS OF BRMS?

As **Jack Vaughn points out on SOA TechTarget**<sup>4</sup>, BRMS is “a school of automation going back to the early days of Artificial Intelligence, when researchers sought to describe complex systems in the simplest terms, center(ed) on the use of rules.”

*Unfortunately BRMS had a bad reputation back when it was called “expert systems.”*

Unfortunately BRMS had a bad reputation back when it was called “expert systems” because of the age-old axiom, “garbage in, garbage out.” In that earlier era, the software was only as good as the real-life source of the artificial intelligence. Similarly, today it is only as good as the business rules.

As explained on the **BR community website**<sup>5</sup>, “Early BRMS controlled logic in the form of... if-then-else... Recently, two wider trends have expanded the scope of the BRMS... (they are) the increasing adoption of... modeling and the expanded (role of) analytics in core process decisions and complex events.”

According to IDC Vice President Steve Hendrick as quoted by **Sandy Kemsley on her blog**<sup>6</sup>, “BRMS [is] at a crossroads, currently being used as passive decisioning systems with limited scope, but with changes coming in visibility, open source, decision management platforms, and cloud services.”

This metamorphosis of BRMS into an enabler of better decision management is probably the largest benefit you can expect of a BRMS-based approach to integrating data, logic, and user interfaces.

<sup>4</sup> [http://searchsoa.techtarget.com/tip/0,289483,sid26\\_gci1375897,00.html](http://searchsoa.techtarget.com/tip/0,289483,sid26_gci1375897,00.html)

<sup>5</sup> <http://www.brcommunity.com/b470.php>

<sup>6</sup> <http://www.column2.com/2009/11/brms-at-a-crossroads-brf/>



*All rules are a good fit for BRMS—some might be better left in code.*

System-level applications of enterprise BRMS include:

- resource allocation and prioritization
- network security and monitoring (e.g., intelligent assessment of traffic for malicious intent, smart alerts, and control actions)
- authorization (e.g., determining user permissions)

User-level applications include:

- support of rules-based control systems (e.g., air conditioning, heating)
- pricing and electronic trading (e.g., applying algorithms to live pricing information and other specific applications in almost any industry)

Industry examples would include:

- assessing drug interactions or providing prescription assistance in healthcare delivery
- evaluating and approving benefits such as social security, unemployment, and transitional assistance in government
- fraud detection and premium pricing in insurance
- product configuration with complex feature interdependencies in manufacturing or distribution

Some generic BRMS benefits include:

- Re-usable data and interface approaches as well as rules
- Faster response to change with cascading time savings throughout the application's lifecycle
- Application updates while in production with minimal IT resources
- Reuse of your business rules across applications and across your extended enterprise
- Better collaboration for more rapid improvement in changing business rules
- Simulation/model-driven for better governance and auditability in general and specific to regulatory requirements

But Kemsley also notes that not all rules are a good fit for BRMS—some might be better left in code. She says some BRMS products are “over-customized” to meet narrow or specialized IT needs. As with all software, “rip and replace” is not a simple exercise, so the objective of a single BRMS is still primarily just an objective.



### ASK YOURSELF: WHAT DO YOU NEED IN BRMS?

So what does it take to deliver such benefits? As with any software, you need to separate the “have to haves” from the “nice to haves.” (And remember that in most cases it will be a member of your IT ecosystem—more often than not someone not even directly employed by your organization—who will actually be making the choice of BRMS that you indirectly use. However it is important for you to understand why that company or individual is making these BRMS choices.)

As the definition on page 2 suggests, the basic BRMS needs to enable business policy and rules development with access features for both developers and business analysts. These features will enable ease of change management, simulation/modeling in the initial development of and future changing of rules, and audit trail functionality to track changes. Without business analyst support, BRMS is simply the tool set front end of a run-time BRE. IT Investment Research believes you should be wary of BRE tool sets that claim to be BRMS.

Some consider simulation/modeling a “nice to have” instead of a “have to have.” IT Investment Research disagrees because the major objective of BRMS is to automate the management and measurement of an enterprise or key enterprise operation better. It does not make sense to try to do that without testing and experimenting first.

*The major objective of a BRMS is to automate the management and measurement of an enterprise or key enterprise operation better.*

True “nice to haves” include the ability to implement the next iteration of a rule set dynamically, deployment by the business analyst after modeling without IT intervention, checks/balances throughout the system, and wide-spread notification/commenting/collaboration capabilities.

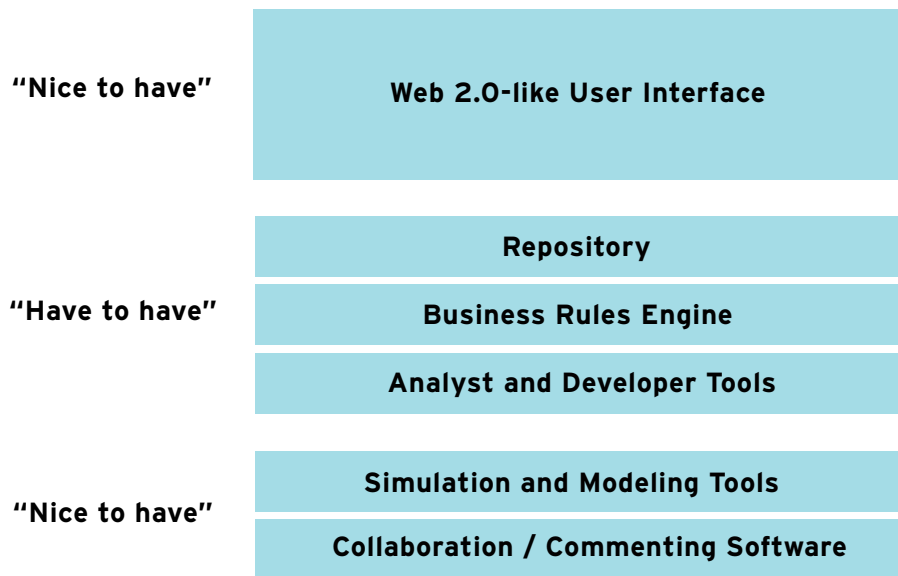
The latter feature makes business rules, especially changing business rules, highly visible to business itself (e.g., to the HR VP as well as the benefits manager and IT person who works on HR automation when health insurance policies are changing).

The chance for a C-level executive to be able to quickly comment on a proposed change or a simulation result, from the perspective of everything else that is going on in the organization, is very important. It is a little-researched part of enterprise software usage that organizational cultural issues often keep enterprises and organizations from participating fully in the operation of enterprise software and taking full advantage of that software. The classic example of that issue is the less than whole-hearted, wide-scale acceptance of electronic calendaring 30 years after its invention. After all, who wants the boss to know where he or she is every minute?



Figure 2 illustrates how these “have to have” and “nice to have” components fit together in a generic BRMS offering.

**FIGURE 2: BUSINESS RULES MANAGEMENT SYSTEM**



(For surrounding ecosystem, see figure 1)

*BRMS becomes more than a programming tool and an actual change agent.*

If you can overcome such barriers, BRMS becomes more than a programming tool and an actual change agent, allowing you to incorporate auditability requirements (whether based on laws, your customers' needs, etc.) more rapidly than accomplishing the same functionality by customizing enterprise applications. BRMS also supports deployment by the business analyst after modeling without IT intervention, and provides checks/balances throughout the organization.

*BRMS standardization efforts are divided between de facto and de jure activity.*

#### **ASK YOURSELF: WHAT STANDARDS EXIST FOR BRMS?**

Standards activities related to BRMS have been stymied by a variety of factors that in turn somewhat hinder BRMS adoption. IT Investment Research found that most original BRMS standards work was performed by companies that were subsequently acquired, thereby slowing the standards adoption process.

This does not mean that the standards process has ended, and it actually works in favor of eventual widespread BRMS standardization because there is less marketing-driven standardization competition.

As is usual for all standards, BRMS standardization efforts are divided between de facto and de jure activity. For example, de facto standardization work is ongoing within organizations such as the Apache Software Foundation (ASF), while a more formal process proceeds within the Object Management Group (OMG) and the Organization for the Advancement of Structured Information Standards (OASIS).

The Object Management Group (OMG) is an industry consortium that is best known for promoting the standardized use of object request brokers 20 years ago, and a unified modeling language beginning 10 years ago. The OMG work centers around specifications rather than software products, but—as its working group activities succeed—many products end up implementing OMG specifications.

*A Business Modeling & Integration Domain Task Force is actively developing specifications that will promote inter- and intra-enterprise integration and collaboration of people, systems, processes, and information.*

The OMG is not a standards body like the International Standards Organization (ISO) or U.S. National Institute of Standards and Technology (NIST). Still all these activities interrelate to the extent that a formal activity exists in support of BRMS specification that is incorporated within the OMG's Model Driven Architecture (MDA).

If the experience with the OMG's Unified Modeling Language, Metaobject Facility, XML Metadata Interchange, Common Warehouse Metamodel, and Object Management Architecture is any indication, resulting standardized BRMS products will be available from many sources, including vendor companies and sources of freeware and open source software, including both OMG members and non-members.

Despite fits and starts because of the merger/acquisition trend in the software industry, a Business Modeling & Integration Domain Task Force, which is active within the OMG, develops specifications that will promote inter- and intra-enterprise integration and collaboration of people, systems, processes, and information across the enterprise, including business partners and customers. This task force is focused on business semantics and recognizes that it needs to coordinate with other task forces and standards bodies that are focused on execution in information systems.

Areas for possible standardization that the Business Modeling & Integration Domain Task Force is considering include:

- Business improvement - managing the rules that define the business
- Regulatory compliance - managing the rules that affect compliance issues
- Process improvement - managing the rules contained in business processes
- Quality improvement - managing the rules for process readability and auditability
- Business change management - managing the change process
- Operational excellence - optimizing the business rules used in an organization
- System development, integration and maintenance - improving the software development process
- Asset management and re-use - managing rules as other business and/or software assets

In addition to the OMG, OASIS has advanced a standard for a Business Process Execution Language (BPEL) and a BPEL4People standard more oriented to workflow needs.

Standards-setting groups such as ASF and the Java Community Process (JCP) are more well known but much more informal. As part of its process, the JCP is advancing a lightweight API standard, JSR-94, that has been developed to make it easy to identify and invoke a rules engine. As with BRMS standardization within the OMG and BPEL standardization in OASIS, much of this work was accomplished by a company that no longer exists, BEA Systems, which was acquired by Oracle.

*The history of the Apache Software Foundation provides a perfect introduction into understanding the strengths and weaknesses of open source.*

#### ASK YOURSELF: WHAT CAN OPEN SOURCE DO FOR BRMS?

The history and philosophy of ASF provides an introduction into understanding the strengths and weaknesses of open source terms and conditions and open source culture in general and as they specifically apply to BRMS features and benefits. (As an aside, IT Investment Research does not believe that there is an open source software market or open source software business model separate from the enterprise software market and business model. But those terms are often used interchangeably for what IT Investment Research calls below the open source culture.)

ASF, although supported by many software suppliers, is heavily driven by end users. The Apache **Orchestration Director Engine (ODE) project**<sup>7</sup> is also an important contributor to BRMS standardization. ASF took up some of the standards slack along with the OMG when early BRMS proponents such as BEA were acquired by larger enterprise software providers. And those providers, IBM in particular, are among the almost universal supporters of ASF.

*Historically, the JBoss Community's activity falls somewhere between the single vendor-driven approach and total vendor neutrality.*

In addition, the JBoss Community has been a major driver of open source middleware, of which BRMS is considered a part.

The JBoss Community continues to fully embrace the open source software culture for which Red Hat is well known. The Drools community project is a collection of four BRMS-relevant projects.

Drools Guvnor is the community project for BRMS and related Web 2.0 user interface tools that Red Hat productizes as JBoss Enterprise BRMS.

The Drools community projects are among the leading JBoss Community projects after its namesake JBoss Application Server. Drools began in 2001 and was incorporated into the JBoss Community in 2005. It follows the JSR-94 standard mentioned above for simple API to access a rule engine and is licensed under ASF open source Ts&Cs.

The Drools Guvnor project is a centralized repository with rich web-based GUIs, editors, and tools to aid in the management of large numbers of rules. The repository component, which in turn uses ASF Jackrabbit project code, controls access. It is possible to lock down access and restrict features so domain experts (non-programmers) can view and edit rules without being exposed to all the features at once.

As of 2009, the Drools project has been expanded into four main sub projects: Guvnor for BRMS, the Expert rule engine, Flow for rules flow, and Fusion for event processing. Drools and its sub-projects are community releases in the JBoss Community. As such, they are ideal for early stage development projects and proofs of concept.

<sup>7</sup> <http://ode.apache.org/>



Red Hat's JBoss Enterprise BRMS, which is recommended for production use, is based on the core community projects and is available via a subscription that includes an enterprise-ready, integrated and stable platform, support, patches and updates, long term maintenance policies and legal assurances, stack certification, and other advantages (see the next section for more details).

As is typically one of the advantages of the open source culture, the community releases of Drools projects focus on fast-paced innovation to give users the latest functionality, with releases every few months.

Red Hat and the JBoss Community are further involved in the Apache **Orchestration Director Engine (ODE) project** and its extension known as Riftsaw.

Additionally, Red Hat is working on a roadmap that incorporates the futures of jBPM, ODE/Riftsaw, and DroolsFlow, which eventually will yield a business process automation platform. The Drools community is currently driving towards a solution where business rules, business events, and business processes are all first-class citizens and integrated into a cohesive whole.

#### ASK YOURSELF: HOW CAN RED HAT HELP?

Red Hat's middleware lineup has grown considerably over the last few years. Today, the JBoss Enterprise Middleware portfolio includes platforms for portals, enterprise service bus (ESB)-based applications, service integration, data services, and business rules management.

Red Hat's JBoss Enterprise BRMS combines the Drools BRMS with integrated business alert monitoring and event-driven capabilities. JBoss Enterprise BRMS also includes the Drools Guvnor project extended with a Jackrabbit repository for artifacts, metadata, version control, and an authoring and management front end for analysts.

*The advantage is that the Red Hat BRMS is tested and certified with the rest of the Red Hat stack.*

Notice the use of the word "productization" above. Red Hat integrates community projects and makes them available via a subscription that includes patches and updates, long-term maintenance contracts, technical support, Red Hat's Software Assurance program, and other advantages. Still based on open standards, Red Hat's enterprise offerings provide customers with the long-term stability required for production deployments, and provide ISVs with an enterprise platform to certify against. Red Hat also takes the responsibility for continuously integrating, patching, and updating disparate open source projects off the customer's shoulders. JBoss Enterprise Middleware can improve development, deployment, and management productivity of enterprise IT shops.

A subscription for Red Hat's JBoss Enterprise BRMS delivers support, binary and source code, and documentation, along with a single, integrated patch and update stream for all the integrated community project components (Drools Guvner, Jackrabbit, Eclipse toolset, etc.).



*The advantage is that JBoss Enterprise BRMS is tested and certified with the rest of the Red Hat stack.*

Additionally, JBoss Enterprise BRMS is tested and certified with the rest of the Red Hat stack, which includes Red Hat Enterprise Virtualization and Red Hat Enterprise Linux.

It is important to understand that whether your organization's or enterprise's business rules are implicit or explicit, you want to have BRMS functionality that is right for your current needs. While you likely cannot avoid having multiple BRMS vendors because of the nature of the software industry, the optimal situation is that you have only one set of business rules.

Interestingly, this objective coincides with the open source software philosophy. The beauty of the open source culture and related terms and conditions is that you are in control.

*The beauty of the open source culture and related terms and conditions is that you are in control.*

In reality, there are limited scenarios where an IT department prefers to develop its own BRMS. That is something best left to a third-party IT provider unless you have a very large and sophisticated IT staff. But you have that option. If, as is more likely, you are going to depend on a third party to maintain the platform—be it Red Hat, an integrator, another applications provider, or whom-ever—open source terms and conditions ensure you always the rights to the business rules management software.

Still for most organizations, including the majority that are dependent on third-party providers, it is important to understand the purpose, features, functions, and benefits of the BRMS.

And remember, IT Investment Research believes that primarily business people should concentrate on the rules themselves.



## ABOUT RED HAT

Red Hat was founded in 1993 and is headquartered in Raleigh, NC. Today, with more than 60 offices around the world, Red Hat is the largest publicly traded technology company fully committed to open source. That commitment has paid off over time, for us and our customers, proving the value of open source software and establishing a viable business model built around the open source way. Red Hat provides high-quality, affordable technology to the enterprise. Our solutions are delivered via subscription and range from operating systems and platforms like Red Hat Enterprise Linux and JBoss Enterprise Middleware, to application and management tools, as well as consulting, training, and support.

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