

# INCREASING AGILITY WITH A BUSINESS RULES ENGINE

*Enabling production changes within a day.*

Companies are continuously looking for ways to increase their agility in implementing software. Whether it is adopting new development strategies to changing project methodologies, the goal is to empower users to be more agile. When businesses utilize rules engine technology, they not only increase their agility, they also empower business users to make changes without needing a developer.

## WHAT ARE BUSINESS RULES AND HOW DO THEY WORK IN A BUSINESS RULES ENGINE?

Businesses have policies, procedures, and processes that are followed when conducting normal business operations. When companies document this information, they are essentially writing business rules. Business rules define or constrain pieces of this business logic to inform users what needs to occur when conditions are either met or not met in each scenario. One example of a business rule involves a business receiving a check and requiring a “received date” to be documented. Another example involves a customer not sending a check, and the rule stipulates you should stop processing the transaction and escalate it to a specific group. A business rules engine replicates this process/policy/procedure knowledge and allows for the digital documentation and automation of this business logic.

When business rules are implemented in rules technology, they reside in a self-contained ecosystem called a rules engine. A rules engine is a collection of coded business rules that share a common purpose, with each rule being an atomic piece of a business policy, logic, or procedure. When integrated into an enterprise technology environment, a requesting application or host provides input data to the rules engine. The information provided allows the rules engine to interpret a set of facts and outputs a result. These outputs are sent back to the requesting application.



## HOW DOES A RULES ENGINE OUTPUT A RESULT?

Even though the process of obtaining a result from a rules engine seems simple, it is not. When a rules request is sent to the rules engine, it has to think of every possible scenario that could occur and continually attempt to execute the request as efficiently as possible. For this to occur, the rules engine utilizes multiple factors to determine the order the rule request should execute. Using the initial set of input data, the rules engine begins its evaluation by using a complex algorithm to determine what rule should be executed/fired first. As the rules engine processes the requests, rules continue to execute. The algorithm is constantly evaluating the various coded business rules to determine if/when they

should be executed for maximum efficiency. Each time a coded rule is executed, it causes the potential scenarios for a rule execution run to change. Once the rules engine determines no additional rules can fire, a result is outputted. The rules engine algorithm learns from its runs, teaching itself the nature of its facts, rules, and outputs. Once an order is determined for a given scenario, when the same scenario is requested to be executed, the rules engine will experience an efficiency increase as it will pick the same rule execution order that occurred for that scenario.

#### **BUSINESS RULES CAN BE USED FOR SEVERAL PURPOSES IN ADDITION TO THE BELOW LIST**

- Workflow Routing
- Productivity Tracking
- Error/Exception Handling
- Decision Handling

#### **RULES ENGINE ENABLES COMPANIES TO INCREASE THEIR AGILITY**

When companies utilize a rules engine as a separate implementation to their application, they are able to capitalize on its agility and ease of use. Instead of utilizing change requests, rule changes can be completed and deployed into the production environment of the rules engine within a few hours of the request. This enables companies to change the way their technology interprets policy and procedures at a moment's notice by having added a separate policy layer into their applications. Because business rules technology is more simplistic in syntax and closer to written English, users without programming knowledge—any user including business users—can make rule changes.

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Business units can realize additional benefits from rules engine technology. Using a business rules management software suite can further increase non-technical users' ability to own their business rules engine. By allowing business users to own this process, companies can reduce the amount of documentation needed to make policy technology-related changes. Because rules engines contain coded business policy and procedures, they can be referenced and trusted as a single source of truth.

#### **RULES ENGINE TECHNOLOGY, A SOLUTION THAT CAN INCREASE THE VALUE DELIVERED TO THE BUSINESS**

While business technology rules benefit by documenting a digital source of truth, business rules empower users to make changes almost instantaneously without the need for business analysts or developers. While business rules technology may not be familiar to everyone, it is a technology that can enable companies to increase their agility in making technology changes.



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