



Business Rule Solutions

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Given the degree of product/service customization desired by consumers today, coupled with the accelerating rate of change, how much business activity still occurs in a particular, orderly fashion? The answer, of course, is less and less all the time. 'Exceptions' have become the rule. That's why I claim the procedural paradigm won't scale any more. Let's go beyond the hype and move to an approach more suitable for today's business architecture. I call it "configuration agility".

Big-P Process is Dead; Long Live Configuration Agility!

It's been said that I claim the procedural paradigm won't scale anymore. *Guilty as charged!* Let me explain.

Procedural vs. Declarative

In the big scheme of things, you have two basic choices for conceptualization, and ultimately implementation, of business capabilities: *procedural* vs. *declarative*.

Let's make sure we agree on what these terms mean. I'll draw directly on Merriam-Webster Unabridged to make sure we're on the same page. If the terms don't mean what they're supposed to mean, all bets are off. But I guess that goes without saying, doesn't it?

procedure: 1a: a particular way of doing or of going about the accomplishment of something 1b (1): a particular course of action (2): a particular step adopted for doing or accomplishing something (3): a series of steps followed in a regular orderly definite way

You can spot the seeds of the scalability problem right away with repeated use of the word "particular" and with the phrase "regular orderly definite way" in the definition. Given the degree of product/service customization consumers demand today, and the accelerating rate of change, how much business activity still occurs in a particular and regular orderly definite way? The answer, of course, is less and less all the time. 'Exceptions' have become the rule.

The essential characteristic of procedures is that they flow. The flow comprises the steps by which a thing is intended to become a different thing (or the same thing in a different state). The essence of 'procedure' is therefore that something will hopefully be *transformed*. For sure, that's a very basic, very important, very necessary part of any business capability. The problem arises taking procedure beyond that point.

Something *declarative*, in contrast, doesn't flow. It just states something that must (or should) be true.

declarative: 2: *having the characteristics of or making a declaration* : ASSERTIVE;

specifically : constituting a statement that can be either true or false

Data is that way; it simply represents facts. It doesn't do anything. It doesn't flow anywhere (unless some *process* moves it).

Business rules (properly expressed) are that way too; they simply give guidance. They don't do anything. They don't flow anywhere. They can't be anything other than true or false. In short, business rules like data are fundamentally different than procedures.

Big-P Process

The traditional procedural paradigm (I'll call it *Big-P Process*) embeds business rules in procedures (and in process models and in procedural code). What happens when you treat things that could be declarative in a procedural way? You get bloat. You lose business intent. You produce needless complexity. And you also get what I call *configuration stagnation*. As you scale, these problems grow exponentially.

How many business rules are we talking about? Any given business capability easily has hundreds, sometimes thousands of business rules – especially when you begin to factor in the know-how needed to make smart operational business decisions. And don't our businesses increasingly depend on ever more complex know-how? Is there any end to that trend in sight?

At the scale of today's business, the *Big-P Process* paradigm simply doesn't work. It results in ungovernable business operations and unretainable know-how. Big-P solutions are like setting the business in concrete. It's all so unnecessary and so counterproductive. It's just not *smart*.

Configuration Agility

The key question for agile business capabilities is how the business is *configured* (and quickly reconfigured) for operation at any given point in time.

In the Big-P paradigm, the building-blocks become thoroughly entangled with flow (procedure). The result is essentially a semantic *dead zone*. Because things that could be expressed declaratively *aren't*, the opportunity is lost to use logic to automatically evaluate business rules (read 'business practices') for conflicts, anomalies and other logical defects.

The future clearly does not lie in that direction. Instead, it lies with granular, *declarative*, semantically-rich specification of business configurations in building-block fashion. It lies with the paradigm that can produce the optimal *configuration agility*.

In addition to procedures, *smart configuration models* will feature at least these other building blocks for business capabilities, all specified at the business level:

- business rules
- operational business decisions
- structured business vocabularies (concept models, also known as fact models)
- business goals and risks
- business events

From an engineering perspective, the secret to agile configuration is 'late binding' – that is, bringing all the pieces together for execution (i.e., performance of procedures) as late as possible. That way, performance can be as up-to-date and as flexible as possible.

*Smart configuration models*¹ should be the new mantra for business architecture. In a world of constant and accelerating change, I simply see no alternative. Doing more of the same is just not going to work anymore – and already hasn't been for a good, long while!

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¹ Smart configuration schemes also address business governance and compliance – essential in a world of constant change – and just-in-time (JIT) delivery of know-how for operational workers. In our new book, *Building Business Solutions* (see http://www.brsolutions.com/b_building_business_solutions.php) we call systems built using smart configuration models *business operation systems* (as opposed to ‘information systems’).

