

Capability Frameworks.

By David Winders



About the Author:

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Capability frameworks always come up in conversation with other business architects.

Is the SOA term "business service" helpful to people in the business?

In nearly every encounter with fellow business architects the subject of capability frameworks seems to come up in discussion. In nearly every case people are trying to establish their understanding of this approach and seeking to get further information or comfort from discussion with an outsider who might have the answer. This seems to indicate an underlying issue that as a profession we are confused about what a capability framework is and what benefits it offers. Many architecture teams spend hours discussing what a capability is and whether it is different from a high-level process view.

Capabilities focus on outputs whilst processes are concerned with actions. Capabilities represent parts of the business model that deliver specific outputs enabling the business to achieve certain things. One could argue that a better phrase to use would be "business building block" which describes the concept of a slice of business model incorporating people, processes and technology to produce outputs. A business building block has a name relating to its capability with focus to what it delivers; this just seems so much more sensible a term and fits with both business and I.T. professionals giving clarity to all.

In the I.T. world Service Orientated Architecture (SOA) seeks to identify "business services" in order to align I.T. services and components to offer a reusable agile technology infrastructure. These SOA business services cover all organisational capabilities whether they add value to a customer or not. I have issues with a so-called business service that delivers no value in the eyes of the customer and therefore question this naming practice. What I.T. people mean is that it is a service that is provided to the business, whilst in commercial terms a service is an activity that should manifest in delivering value to a paying client as perceived by that client.

The three terms: capability, business building blocks and business service actually mean the same thing, and business building block seems the best name to describe what it actually is and pull this all together without hijacking other terms such as the word services, leading to language issues between technical, operations, sales and marketing people.

In financial services a high-level process architecture often looks nigh on identical to a high-level capability model and therefore, in a process-dominant sector, people look at capability models and say "what is the point?". Apart from a slightly different naming convention, process is verb-followed-by-noun (Make Payments) whilst capability is often

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noun-followed-by-verb, (Payment Making); there is little difference between the two.

The possible explanation for this is that in financial services there is no tangible product; data is processed and outputs are often changed data, with maybe some paperwork produced as a minor physical output. The activity of a financial service organisation is comprised of a very high percentage of processing with low levels of physical inputs and outputs so it is not surprising that in many cases the two models look almost identical.

Do process architectures and capability frameworks look similar because the capabilities are poorly defined?

An alternative reason for the convergence of process and capability models maybe due to the poor definition of capabilities. If you ask people in an organisation steeped in delivery, particularly in a high volume processing area, they are often more focussed on what their department does day to day than what the department delivers from a customer perspective. If you ask what the capabilities are you universally will get a list of processes. It is quite a difficult step change in thinking to ask people to forget about how they do things and think about what the deliverables are instead and what the outputs mean to customers and the rest of the organisation's value chain.

To define capabilities properly it is necessary to re-examine the organisation's purposes and then question how it delivers its objectives by logically breaking down the offering. This will expose the capabilities without the bias of existing departmental structures and process based thinking. This conceptual approach of "why and how" logical modelling is excellent for breaking the process constraint mindset. This technique of lifting the thinking above the physical world of delivery using words is also known as semantic modelling. There are software tools that can help us in this logical process modelling and these are highly useful e.g. Knowledge Genes www.knowledgegenes.com.

In organisations with higher levels of physical inputs and outputs capability frameworks seem more relevant.

Military enterprise architectures MODAF/DODAF do give focus to capability frameworks as the military is more interested in what it can achieve than designing replicable activities to do what it does; the physical inputs and outputs are potentially more important than the process itself. A military capability is dominated by resources, equipment, fuel, munitions, interoperability with other capabilities, and the skills required to deploy them; process albeit important has parity or is less important than these other things.

A topical subject at the moment is the 65th anniversary of the allied D-Day landings in Normandy in 1944 where the capabilities of "Supplying Fuel" and "Supplying Stores and Provisions" are manifested in the technologies of pipeline under the ocean (PLUTO) and two floating harbours (Mulberry Harbour). There was a process content in these "Overlord" capabilities, how to construct them for example, but the dominance must have been in logistics, technology, materials and engineering skills. The capability was to support and maintain mechanised divisions in the field of combat without a land-based supply chain.

In consequence a capability framework is going to look very different



Arromanches Normandy showing the remains of the Mulberry Harbour.

to process architecture in an organisation where the inputs and outputs are highly physical as opposed to electrons and data in financial services. Capability frameworks are going to be more useful in companies that manufacture or transport and distribute physical goods than in organisations that deal in non-tangible services.

Are high level process groups really processes?

Another argument could be that capability frameworks should replace high-level process architectures and it is the process architectures that create the confusion rather than the other way round. Processes should represent dynamic structures or work flows with linkages between processes. In many level (0) or level (1) process architectures there is little linkage or flow, just a list of similar grouped activities and in the case of non-transactional activities where activity is different nearly every time it is undertaken. Are these really processes? Or are they best described as capabilities! This view would suggest that processes only get documented and described at the level that shows how they support or realise the capabilities and no higher. Once the flow element cannot be seen in a process model then what we are describing is a capability not a flow of work or process.

In organisations that have used high-level process architectures for years and where there is dominance in process compared to the handling of physical items one has to argue that there is little justification for upsetting the “applecart” for academic sake; if your people understand the process view and are comfortable with it then leave it be.

If the purpose of designing a capability framework is to produce a hierarchy of interconnecting business building blocks that allows you to offer high levels of individual complexity - “mass individualisation”-

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Capability frameworks add value by allowing the business to build re-usable components.

whilst being supported by underlying simplicity then there is a good argument for moving to a capability-based approach. This is all about delivering what the customer wants, which may involve many different options and combinations of components and therefore could be potentially highly complex, however the building block approach means one delivers this “complexity” by linking simple pieces together in many different ways.

In summary we need to realise the differences between capability frameworks and process architectures and understand where they add value and where they don't. We need to perhaps use more concise language that is business-focussed and be aware that different disciplines use conflicting terms like the phrase “business services” creating unnecessary confusion. I would suggest that "business building block" is better than the ambiguous term "capability" to describe a portion of the business that delivers something, but with reference to the capability in the name of the building block.

Let us keep our feet on the ground and remain pragmatic!

Like so many things there is a danger that we all get too intellectual about all of this and the techniques, tools and language we use must be appropriate for the audience that receives it. It may well be academically interesting for us in business architecture to have these debates but what value does this all add to the business that pays the bills? Let us all keep this in mind and use our skills to add value appropriately and with pragmatism.

If you need any help in defining a process architecture or a capability framework Dever Solutions offers consulting assistance and training courses in business architecture and business design.

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for good business design"**