



**YOUR PARTNER IN
SERVICE DELIVERY**

1. INTRODUCTION

This paper has been produced by Peter Suba and Steve Ingall (iCore Service Management consultants) and is based upon considerable research done by iCore on recent developments in both the IT Service Management world and the evolving Business Service Management world.

2. BACKGROUND

For the vast majority of businesses, Information Technology is part of a complex set of interdependent elements that contribute to serving its customers. Whilst purely looking at what the technology may provide as a simple point of reference for the IT Department, in reality the way businesses leverage IT differs for each organisation.

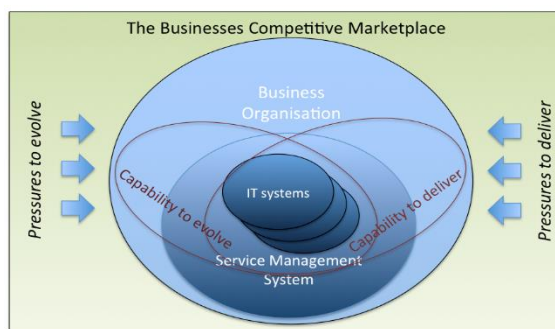
A number of key studies analyse this perspective under the umbrella term of the Resource-Based view of the firm which looks at distinctive firm-specific resources and capabilities as the primary driver for firm competitiveness (see diagram).



From the firm’s perspective, two key types of capabilities exist. These perspectives are:

1. use of the company’s current resources to deliver in the existing marketplace (e.g. manufacture its current product line, distribute its products, handle customer requests, etc., etc.); or
2. transform the company and redeploy the resources differently, in order to react to the changing environment or gain superior position over its competitors (e.g. provide better service, cheaper production, closer to the market, enhanced user experience)

When the Resources are IT Systems we need to ensure that we also apply the same perspectives, hence the Service Management System. The implication is that the business capabilities include or depend upon (to varying levels) the underlying IT capabilities which make up the Service Management System (see diagram below).



The level of inter-linkage between the IT and the business capability has significant implications for the IT organisation. For a highly IT-intensive business capability, it could even be argued that separation of the IT capability from the business one does not make sense any more.

The quoted example of Google in the online services industry is a case in point. In these circumstances, the IT Capability **is** the Business Capability itself. On the other hand, whilst today almost all businesses, certainly in the developed world, depend on IT systems, there are many examples where the IT capability is supporting, but clearly separable from the business capability.

3. SERVICE TRANSITION – LIVING ON THE EDGE

We can easily identify from the above that IT capabilities within two stages of the IT Service Lifecycle (in ITIL terms) are directly aligned to supporting the business capabilities mentioned above. Service Design is quite clearly an aspect that supports the business capabilities required to evolve (often referred to as ***“Change the Business”***), and Service Operations is clearly supporting the business capabilities to deliver day-to-day (again, often referred to as ***“Run the Business”***).

“But what about Service Transition?” iCore argue that the IT capability around Service Transition is a separate one from both Service Design and Service Operation, and is one that equally needs to support both ***“Run the Business”*** and ***“Change the Business”*** type capabilities.

This can be easily seen when one considers that Service Transition is about safely operationalising new or changed elements of IT. In other words, it tries to help ***“Change the Business”*** in a way that does not compromise ***“Run the Business”*** in the process.

As with all capabilities, Service Transition is a combination of many related, interdependent elements. They need to be assembled in the right way to ensure the capability is just right for the organisation. Many of the well-known ITIL processes (Change, Release, Testing, Knowledge, etc.) are heavily linked to Service Transition, as well as a number of practices known across the IT industry that may or may not be mentioned in the ITIL books, practices such as Early Life Support (ELS); Continuous Deployment (aka [wrongly?] DevOps); Interim Sourcing (IaaS, PaaS; etc.).

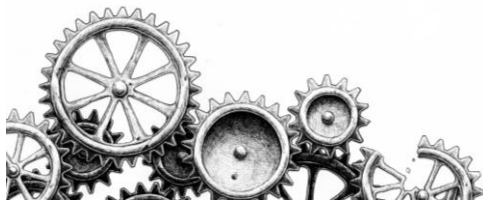
At this point we cannot avoid mentioning DevOps and ITIL because at the time of researching this paper, in the IT industry there is an intense interest and polarised views as to the applicability and benefits of both of these. It should ideally be recognised that, contrary to some commonly expressed views, they are neither comparable, nor contradictory. ITIL is a framework, which covers a broader scope, whilst DevOps is a set of practices and cultural movement that covers a narrower scope in more depth; the reality of which means they work really well together.

However, most commentators feel the need to compare and contrast these two in order to explain the popularity of them. It is indeed worth noting that they are both popular but are in different stages of the ‘hype curve’ that may explain some of the emotion of their supporters. In a typical comparison, ITIL would be characterised as formal and controlled, and DevOps as dynamic and agile. In reality iCore argues that they both support the concept of IT Service Management in the broader sense. “Believers” in either side usually analyse both issues and virtues of their chosen approach. In either case the analysis could be distilled down to the internal conflict that is the very essence of Service Transition, namely speed of change vs. protecting

stability of the production environments (iCore’s ‘Pragmatist’ viewpoint).

The internal conflict between the urgency of business change against the stability of the production environment is precisely the key question; due to the dual goals of supporting both the ‘**Change the Business**’ and ‘**Run the Business**’ capabilities.

Getting the balance right is what the capability of Service Transition is all about. All aspects of Service Transition should support getting this balance right, supporting both the required speed, as well as ensuring the right level of stability for the production systems.



But how do we know what the right balance is? If we accept that the Service Transition capability must support both the organisational capabilities mentioned in the previous section, then we need to derive the answer in the context of those organisational capabilities. For those at the sharp end, the question is often asked in the form of choosing between DevOps or ITIL. The authors argue that this is not the right question, and it is better to think about adopting practices from the toolboxes of both of them. The right question then becomes “which tools do I need to pick to ensure a working and effective mix?” And tools that support the organisational goals in the most optimal way?

Before going further with what that means in reality for choices made in the disciplines employed in Service Transition, we need to review the concept of *Anti-fragility*. This is important as most advocates of DevOps claim that it ensures both speed of change and operational reliability by being *Anti-fragile*, implying that this, in itself, would make it the ideal target operating model in every circumstance. In order to review this claim, and to determine if this is a desired feature at all anyway, we need to understand what *Anti-fragility* means.

4. KEY DRIVERS FOR IT SERVICE TRANSITION

After discussing the foundations in some detail, let us now return to the central point of thinking about Service Transition as the capability. Before determining how we should be organising for Service Transition, we need to conclude

the key drivers for our decision. A good model to adopt for this would be to apply to the Service Management System some of the concepts of open systems thinking (see diagram above).

In this model, Service Transition would be considered a transformation process - and before we select the right configuration for it, we need to understand the desired outputs, as well as the determinant inputs to it. From the discussions above, we can categorise the key drivers that will impact how we should organise Service Transition:



Input parameters	Output parameters
<ul style="list-style-type: none"> • Degree of the business capability's dependency on IT • The fragility of the IT technology • The existing IT architecture design 	<ul style="list-style-type: none"> • Matching the organisation's pressure to deliver (stability) • Matching the organisation's pressure to evolve (speed of change)

5. CHOOSING THE BEST FIT SERVICE TRANSITION APPROACH

For an IT organisation to determine the configuration of its Service Management activities, considering the above aspects would go a long way to selecting the right approach. In an IT Service Management construct, there are several conclusions one can draw:

5.1. SERVICE MAPPING IS ESSENTIAL

This is because in a business organisation of any considerable size, there are multiple business capabilities and a number of IT systems supporting these in different ways. In other words, looking at the input and output parameters, some business capability contributes more to evolution than delivery; hence the desired balance will differ. Also, they will depend on different systems to different degrees, and in turn the fragility and architecture design of those components will also be different. Any decision on finding the correct Service Transition approach can only be well founded if the contribution of these parameters, hence the mapping of the component parts must be understood.

5.2. ORGANISING IT NEEDS DIFFERENT BUSINESS DRIVERS

Once an IT organisation gets to a maturity level of defining its services, an internal debate usually ensues about the definition and boundaries of these services. Considering the parameters above as key inputs to this discussion will greatly assist alignment with the business.

EXAMPLE:

Categorising business capabilities based on their desired balance on the stability / speed of change scale, would allow applying different Service Transition approaches to the different Services defined. It would in turn help IT determine the type of architecture it wants to target for the future (see the section about optimising the Service Transition approach).

5.3. CHOOSING THE RIGHT SERVICE TRANSITION PATH

In other words, at any point in time, the right approach to be chosen will be constrained by the IT organisation's past choices. Specifically, the existing technology architecture will constrain the choices one can make with its practices. Over time, this can be changed but this will take investment and effort. Due to the complexity and resource intensity of fundamental architectural changes in most organisations, it can often take many years until an ideal configuration is reached. It also means that many businesses have to make do with an IT capability that is not perfectly aligned to its business needs. In the open systems model described above, it is possible

that the constraints of the inputs will allow for a Service Transition approach that will only partially satisfy the desired outputs.

Understanding these aspects, we can simplify our decision mechanism at any point in time to two factors driving the choice of Service Transition approach for any given Service:

- The balance of stability / speed of change required by the business drivers
- The fragility of the current IT-enabled business capability

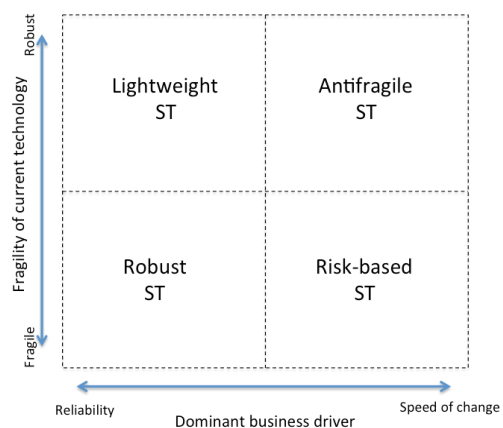
The first factor, the stability / speed of change balance would come from the output factors and need to be considered for each business capability a Service underpins.

The second factor, the fragility of the current IT-enabled business capability, which would also be a function of any Service when its boundaries are well considered, is determined based on two of the input factors

1. How much the business capability the Service supports is dependent on it;
2. How fragile the underlying technology is

The architecture design can be considered a constant in a given time and the other two input factors are a function of it, therefore it makes sense to simplify the decision factors. We will deal with its impact as a limiting factor in the next section when we consider optimising the Service Transition approach.

So, in a simple 2 by 2 matrix, we can finally propose what type of Service Transition approach an organisation should adopt for its services as shown in this diagram. In reality, the practices adopted will range on a continuum and there is no clear cut cut-off point for any type of Service Transition. The terminology chosen here is only used to make the discussion easier to follow.



Lightweight Service Transition should be used when the underlying technology is robust or there is very little dependency of the business capability on the underlying IT. In this case, heavy processes is an overkill and frequent changes are not substantiated by business need.

Anti-fragile Service Transition is driven by the business need of high business agility which IT underpins, and any outage caused by a mistake would not have a high impact on the business – either they are not dependent on the system, or because the architecture of the system is robust (allowing for small impact and / or quick recovery). In this case, it is worth employing practices that stress the change capability of the Service Management System: release new versions often, allow the people to experiment and learn from mistakes, adjust the system and change practices continuously.

Robust Service Transition is usually process-heavy. The overhead is justified by the fragility of the underlying system and / or the high impact of any issues caused by the change. On the other hand, the business pressure is focussed on reliability, which means the longer lead times caused by the more formal and often long-running processes are not critical issues for the business.

Risk-based Service Transition is a balancing act. In reality, this quadrant is characterised by a mismatch between the dominant business driver that would require frequent changes, and an underlying technology architecture that would break easily or cause massive issues if it goes down. Whilst most IT professionals feel like they are in this quadrant, in reality this is less frequent. In the longer term, the strategic answer would be to move to the *Anti-fragile* quadrant, which has the dependency of adjusting the underpinning technology: in other words, it is often a requirement to re-architect before the Service Management approach can be adjusted.

Until that happens, the focus should be on careful, change-by-change specific risk-based assessment should be undertaken to categorise where changes can be fast-tracked to allow for some flexibility with the speed of change.

6. OPTIMISING THE SERVICE TRANSITION APPROACH

As we have discussed above, the path dependency of choosing the Service Transition approach means that choosing the right approach at a given point in time is unlikely to give the ideal outputs for the business. It does, however, mean that a gap between the current IT capability of Service Transition and a target capability can be identified. The service mapping approach will also allow for identification of the constraints (which may be the current technology architecture) that constrains what Service Transition can do.

The next step would be to derive a roadmap that considers adjusting the relevant components over time.

EXAMPLE:

Adjusting the technology architecture, and re-mapping the business capabilities to decouple constraining systems where the flexibility / stability demands are different, which in turn will allow Service Transition approaches to be adjusted over time.

It is essential that as the road mapped out is being travelled, all parameters are monitored. Such roadmaps usually span many years, and during this time it is entirely likely, that all pieces of this wider jigsaw will change. As the business drivers change, business capabilities are adjusted, technology components updated, etc. A review and revision of the roadmap needs to be undertaken regularly.

In fact, optimising Service Transition (just as with any other capability) is a never ending activity, and is a key aspect of creating *anti-fragility* for the organisation as a whole.

EXAMPLES:

- Toyota accelerator firmware issues -> Robust quadrant
- Netflix -> Anti-fragile quadrant
- Complex logistics systems -> Risk based quadrant
- Employee rewards systems -> Lightweight quadrant

7. CONCLUSIONS

There have been a considerable number of new concepts introduced into the ITSM Solution over recent years, but one thing remains consistent and that is the management of changes to IT Systems needs to be well managed and not only during the implementation of the change but in the on-going IT Service Management wrap.

Without this the business may achieve the functionality it wants but will not achieve all the benefits with regard to efficiency. The broken cog will eventually bring the whole system to a standstill.

If you would like further details on how we can help you drive your organisations capability and maturity on Service Transition; or you are generally interested in enhancing IT capability, reducing risk, and ensuring cost effective project delivery please contact us:

Telephone: +44 (0) 207 868 2405

Email: info@icore-ltd.com