Agile and ITIL®
And how they integrate
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Introduction
Within the world of method frameworks it is very easy to become polarised on one specific framework and become a ‘fundamentalist’ on that one single method.

Method fundamentalism leads to people focusing on why all other method frameworks are wrong and theirs is right, rather than a focus on how integrated method frameworks can enable excellent delivery (which is the whole point of having them). Most method frameworks have something to offer and, via inspection and adaption, they can normally co-exist.

This whitepaper discusses the integration of agile with ITIL (Information Technology Infrastructure Library).

What is agile?
There are a number of agile frameworks that in essence are about delivery of value to the customer in the shortest timescales. In many cases, in the ITIL world, agile means on time and cost delivery of fit for purpose services.

What is ITIL?
ITIL is part of the Best Management Practice (BMP) family of frameworks, a family of management and delivery frameworks that have been built from learned best practice, covering complementary topics such as Portfolio, Programme and Project and Service Management.

A closer look at agile
Agile delivery and management frameworks have been evolving since the mid-1980s to enable delivery in constantly changing environments. Agile frameworks, of which there are many, align to an Agile Manifesto that defines agile values and core principles (more on the principles later). These values and principles must be aligned to, for the framework to be considered agile. The agile values stated in the Agile Manifesto are:

- **Individuals and interactions** over processes and tools
- **Working products** over comprehensive documentation
- **Customer collaboration** over contract negotiation
- **Responding to change** over following a plan

Agile recognises that while there is value in the items on the right (e.g. processes and tools), we value the items on the left more (e.g. individuals and interactions).
Agile does not however expect everyone to be a genius and know everything about everything. Therefore, depending on the complexity of a delivery environment, it is essential that people have reference to a 'knowledge cube'; either another person who can coach them or a set of reference information from other people’s experiences and best practice (such as the Information Technology Infrastructure Library).

Not all environments require standards and guidance, some are very simple. Within the agile world we start with the basic agile framework and then inspect and adapt-in any other process or document that is required into our delivery approach, but only if the process or document clearly demonstrates value to the customer.

Sadly what often happens when the BMP frameworks such as ITIL are used, is that they are used far too strictly and it becomes a case of delivering the framework for the framework’s sake rather than focusing on delivering the service in a suitability adapted ITIL implementation.

Agile is designed for use in complicated, complex or anarchic environments where the environment changes regularly. This fits very well with the intent of ITIL to continually improve, and also with the intent of the ITIL framework to be customised to the real world environment.

Here are the 12 agile principles we mentioned earlier:

**Twelve Agile Manifesto Principles**

1. Our highest priority is to satisfy the customer through early and continuous delivery of valuable product.
2. Welcome changing requirements, even late in development. Agile processes harness change for the customer’s competitive advantage.
3. Deliver working product frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
4. Business people and developers must work together daily throughout the project.
5. Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.
6. The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.
7. Working product is the primary measure of progress.
8. Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.
9. Continuous attention to technical excellence and good design enhances agility.
10. Simplicity – the art of maximising the amount of work not done – is essential.
11. The best architectures, requirements, and designs emerge from self-organising teams.
12. At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behaviour accordingly.
For an agile environment to be created, the people and the organisation must have the courage to implement the agile values and principles in a disciplined way.

A closer look at ITIL
First a quote from ITIL...

‘ITIL is used by many hundreds of organisations around the world and offers best-practice guidance to all types of organisation that provide services. ITIL is not a standard that has to be followed; it is guidance that should be read and understood, and used to create value for the service provider and its customers. Organisations are encouraged to adopt ITIL best practices and to adapt them to work in their specific environments in ways that meet their needs.’

ITIL is a very detailed framework that provides comprehensive guidance on how requirements are received from customers and then delivered as services back to customers. It deals with the whole service value chain for how to shape a service delivery organisation. ITIL doesn’t deliver products, it delivers services that make sense to the customer, and that have value to the customer.

ITIL contains five key components:

1. Service Strategy
2. Service Design
3. Service Transition
4. Service Operation
5. Continual Service Improvement

Components 2, 3 and 4 all continually evolve around component 1, the Service Strategy, and the services are continually measured and improved via Continual Service Improvement.

To give a bit more of a practical example of ITIL, let’s take a look at a simplified possible ITIL workflow:

1. Customer raises service request;
2. Service Operation (via Service Desk) contacts Operations, Applications and Technical Management to get their view on the request informed by the Service Management Knowledge System;
3. Request For Change goes to the Change Advisory Board;
4. Authorised changes go to Service Design;
5. Service Design designs new service based on requirements from Service Strategy, existing SLAs and supplier contracts;
6. The design for the new/changed service goes to Service Transition who provide the new or changed service back to Service Operation;
7. Continual Service Improvement looks at metrics and feedback to improve services;
8. Service Strategy feeds every other component.
This continuous cycle ensures that services are provided to customers that evolve over time, and are focused on provision of valuable services that are operated effectively.

**How do agile and ITIL integrate?**

ITIL provides an excellent framework, or ‘knowledge cube’, to enable delivery and operation of an effective portfolio of value add services to customers that continually evolve.

Agile provides delivery and management frameworks to enable fast, effective delivery of services, or products, in constantly evolving environments.

One of the aims of generic IT delivery is reducing lead time. Within ITIL, this means delivering appropriate services to the customer within the least lead time between the customer raising a service request and the service becoming available via service operation.

Agile is excellent at enabling delivery of the right quality of service on time, on cost in the shortest possible lead times.

Agile focuses on producing ITIL-shaped services within short lead times, or ‘vertical slices’ as they are known. Vertical slicing is the art of decomposing really big problems into smaller ones so that they can be focused on and tackled. Within an agile environment, we aim to produce services (or digestible service vertical slices) within weeks at best and months at worst.

Agile thinking can and should be applied across the whole of the ITIL framework to ensure that the lead time from the customer’s perspective is as short as possible. In other words, apply agile excellence to improve the whole service delivery system, not parts of the service delivery system.

However, a typical place to start integrating agile and ITIL is within Service Design and Service Transition; in essence, delivering the changed service in an agile way.

Only focusing agile into one part of ITIL in this way does run the risk that, from the customers perspective, the overall service delivery chain (gathering business requirements through to making the service operational) may still take too long - even though the delivery capability within Service Design and Transition is agile and delivers ‘vertical slices’ very quickly. In other words, just changing one part of the delivery chain may or may not benefit the customer.

If we do focus the initial agile transformation into the service delivery area between Design and Transition, then the projects, programmes and portfolios that deliver changed services can all be focused and improved by using agile.
This is where agile within the IT industry has been traditionally focused up to this point. There are many case studies and statistics that prove the effectiveness and benefits associated with agile projects, programmes and product portfolios. One example of an agile framework that could be utilised is Scrum. Scrum is probably the most implemented agile framework worldwide.

Scrum creates a product backlog of service requirements that are delivered to operations in vertical slices via sprints (weeks), or releases (months).

Scrum forms integrated self-organising teams. Rather than having teams organised into ITIL component smokestacks, the teams are focused across ITIL so they can deliver vertical slices of services quickly and effectively.

**Conclusion**

- Agile is a set of management and delivery frameworks that enable delivery within complicated, complex or anarchic environments.
- The ITIL framework provides the world class, best practice service management knowledge cube.
- ITIL is largely designed to be inspected and adapted. So we can implement agile thinking (the values and principles) at the heart of how we deliver and manage delivery within the organisation, and then use ITIL as a knowledge cube.
- Agile enables fast delivery of ITIL-shaped services, by focusing delivery of ITIL services in an agile way.
- To be agile, organisations and the people within them must have the courage and discipline to be agile. This is generally not easy to implement, however the benefits are huge.

This white paper is a short overview of how agile can support ITIL and vice versa; it is not intended to provide all the answers. However one thing to consider is that, if what we are doing now is perfect, then let’s keep doing it; if what we’re doing now isn’t perfect, then we need to change and try something else.

Combining agile and ITIL creates a world class, service delivery capability that has the excellence and robustness of ITIL with the delivery and governance capability to deliver services within short/appropriate lead times.

**Key references**

agilemanifesto.org

Agile Project and Service Management: delivering IT Services using ITIL, Prince2 and DSDM Atern: Dorothy J Tudor

‘And you actually want to go live with that’ Presentation Project Challenge 2010: Dorothy J Tudor


NB. in the Agile Manifesto Values and Principles listed above the word ‘software’ from the original definition has been changed to ‘product’ throughout as agile is now used in diverse delivery environments, not just software.
About the author

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With over 30 years’ experience as a project and programme manager, consultant, facilitator, trainer and coach, Peter has specialised in the agile market since 1994. He works worldwide with numerous global organisations and has written many white papers on agile and presented at numerous conferences.

Peter is a Certified Scrum Trainer, member of the BCS Agile Committee, Project Management Institute Agile Certified Practitioner, Certified DSDM trainer, Certified APMG Agile Project Management trainer and Certified Prince2 Practitioner, and is Certified within Lean IT Foundation.
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