AGILE THROUGH-LIFE CLOUD SUPPORT SERVICE

SERVICE DESCRIPTION

APRIL 2024

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1   INTRODUCTION

Agilient provides expert advice, solutions and support through the rapid configuration and deployment of MooD[1] solutions on Cloud hosting environments. Our agile through-life managed support service ensures our solutions remain current and relevant and continue to drive value through the realisation of benefits.

2   BENEFITS

- Improve understanding of your requirements related to business need.

- Enable you to adapt quickly to meet the challenges you face.

- Improve decision-making, exploiting assured information more effectively.

- Capture, exploit and retain corporate knowledge.

- Build confidence in your critical management information

- Help your organisation embrace change rather than fear it.

3   FEATURES

- Consultancy and Advisory Services.

- Certified Agile Programme and Project Management.

- MooD Cloud Solution Configuration (Business Modelling).

- Scoping, Requirements Capture and Proofs of Concept

- Benefits Identification, Realisation, Mapping and Tracking.

- Risk, Assumptions, Issues, Dependencies and Opportunity (RAIDO) Management.

- Information Analysis, Assurance, and Integration.

- Designing Data-Driven Models for Performance Management Solutions.

- Agile Through-Life Cloud Support.

4   CONSULTANCY AND ADVISORY SERVICES

Having worked in Information and Cloud Technology in the Private and Public sectors, particularly Defence for many years, Agilient are able to use this experience to offer consultancy and advisory services to complement the customer's own subject matter expertise.

Our focus is on outcomes, what you are trying to achieve, rather than simply on outputs, which your projects deliver. Delivering an output does not necessarily ensure the achievement of an outcome. Every organisation is different, there are similarities, but our focus is on what makes you different and competitive. We don't believe in a one size fits all approach where Information

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[1] *MooD is an advanced technology that breaks traditional cost and time barriers through clarity and collaboration in systems architecture. MooD software digitally represents how a business works, how it and its people are connected, and harnesses the power of connections to drive business performance.*

Technology (IT) is concerned and prefer to use common frameworks to build solutions that can be applied to provide the correct handrails for direction and support in a way which is unique to yourselves.

Change is sometimes necessary to realise potential, but it does not come easy to many customers. We can help you apply your own subject matter expertise more effectively through facilitation of workshops, and collaboration in supporting the management of change and the achievement of your business objectives.

We acknowledge managing change is more about changing behaviours, embedded cultures and ways of working than implementing specific solutions or delivering project outputs, but one cannot be achieved without the other. We can help you identify how information can be used to enable and sustain that process.

5   AGILE PROGRAMME AND PROJECT MANAGEMENT

Agile is now a well-established technique for the delivery of IT projects and programmes. It recognises that at the concept stage of a project, requirements are not always clearly defined. This is understandable and to be expected, however the business world does not stand still while a project or programme is completed.

Under traditional "Waterfall" project methods, a considerable amount of time and effort is devoted to defining the scope, user and system requirements of a project or programme. In the waterfall approach, these documents must be agreed and signed off before the project moves to the next phase, e.g. from assessment to design. Conventional wisdom argues that the further into a project before an incorrect or missing requirement is discovered, the more expensive it is to fix. The Agile view is that the nature of requirements is one of continual change, driven by external events and internal activities, and that typically this cycle of change operates to a shorter drumbeat than that of a conventional waterfall project approach.
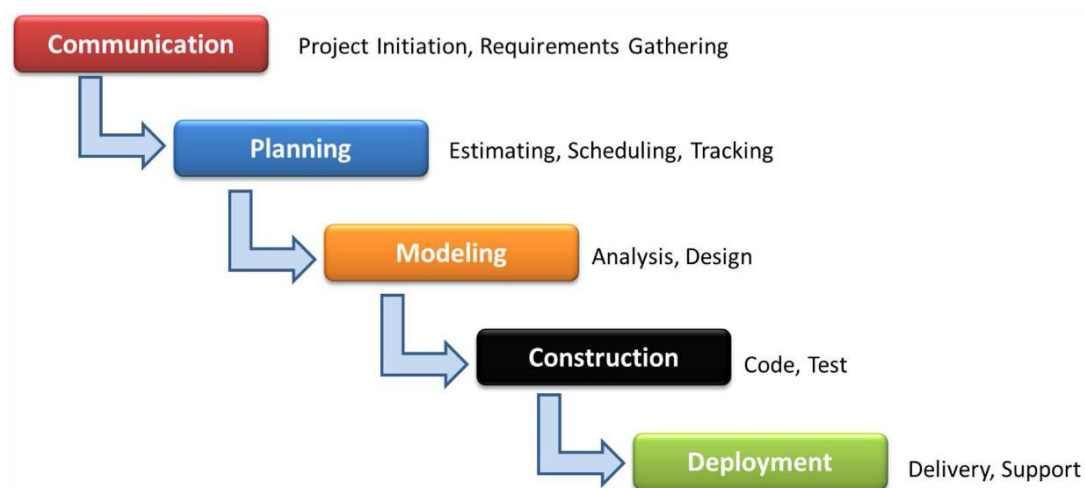

Fig 1: Traditional Waterfall Method

Agilient is experienced in the use of a variety of agile techniques e.g. Scrum, DSDM but whichever technique is used, Agilient prefers to work within the customer's own environment. This collaboration with the customer ensures a fully transparent process and accelerates the agile development cycles whether Scrum or Timebox[2] based.

Our preferred approach tends to be the Atern DSDM method. The essence of it is that there is an exploration phase where current understanding can be exercised through rapid development, and, on acceptance, can move forward to a more formal and rigorous assurance process (engineering). It is a cyclical process but far more flexible and adaptable than more conventional ways of project and programme development. The outline of the process is shown below. Fig 2.
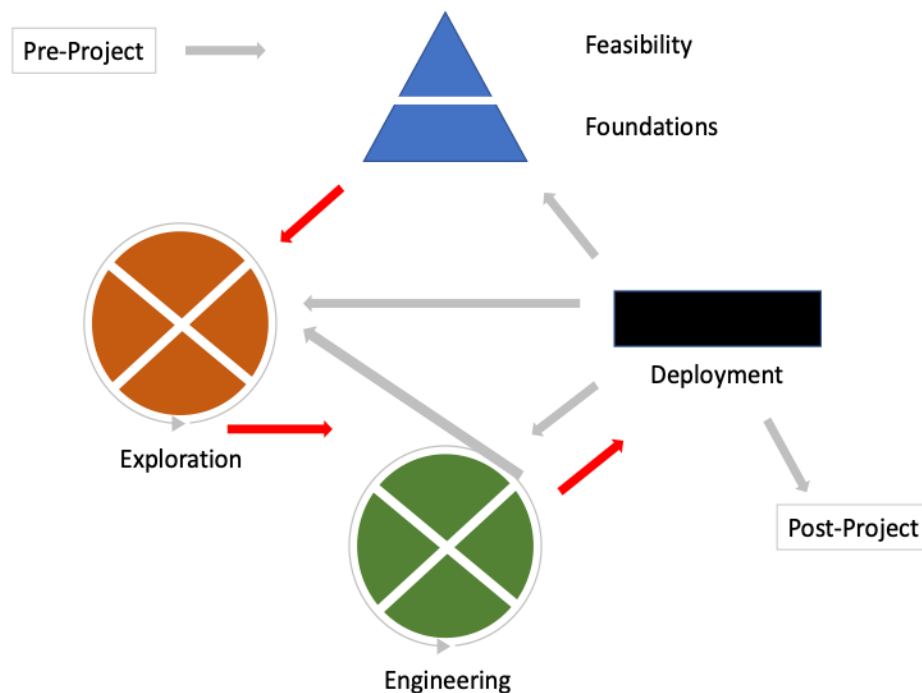

Fig 2:   An example of an agile process (Atern DSDM)

Agilient makes use of the MooD Software Tool throughout this process to help scope the project, capture user stories and requirements, and activate these in the form of real-life prototypes. These, proofs of concept are then put through live testing using a true DevOps[3] strategy where the user gets to see and use what they have requested in a safe but, at the same time, realistic environment

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[2] Timeboxing is a key technique in agile. It is more than just setting short time periods and partitioning the development work. It is a well-defined process to control the creation of low-level products in an iterative fashion, with several specific review points to ensure the quality of those products and the efficiency of the delivery process.

[3] DevOps is a discipline rooted in collaboration and communication, made possible by removing perceived barriers between teams and building trust in a culture of learning and continuous improvement, and drawing from proven technical and management practices that work toward a common goal of shortening software delivery cycles and improving the stability of deployments.

6 MooD CLOUD SOLUTION CONFIGURATION (CAPABILITY AND OPERATING MODELLING)

Agilient uses the MooD software across all our services, its versatility enables us to represent our customers business and complex interactions in a highly visual and easy-to-understand way. This modelling technique is useful to understand how different elements of an organisation or capability interoperate and interact to achieve its business goals. For example, in a change programme, it can show how things work now and how things might be expected to work in the future. They can be used to visualise a starting point and end point or multiple milestones and to assess outcomes realised over time. Having an agreed starting point provides the baseline against which to assess what is needed to achieve the target.

MooD is an exceptional software tool to build and activate these models as a framework to work collaboratively with our customers in facilitating short and long term understanding and planning at varying levels of granularity. The produced models reflect how all components of a system might interact: people, processes, technology, organisation structures, etc., data can then be applied to the model to reflect what happens in the real world and assess the impact of change.

7 SCOPING, REQUIREMENTS CAPTURE AND PROOFS OF CONCEPT

There are very few, if any, environments where change does not take place. In the environments within which Agilient operates, change is not only the norm but is accelerating. Our approach is to work with the customer to elicit requirements through the development of customer stories. We use the MooD software to capture those requirements and stories in order to model how they work and how they interact with other stories and requirements. This not only provides a rigour and robustness to the requirements which can be flowed into an eventual solution, but also captures the traceability matrix so that the solutions stay true to the original customer vision.

Agilient believe this approach creates a consolidating thread through the project. The requirements form the basis of the processes and rules of the eventual solution, but not a straitjacket to constrain development. They become the mechanism by which the solution can be tested, evaluated, and accepted. Ultimately, they generate a set of interactive screens, analyses and reports which form the evolving solution.

Agilient provides, as part of its overall service, the development of Proofs of Concept. Uncertainty at the pre-project stage, immaturity of requirement definition and an undefined scope can lead to significant delays and a paralysis in moving forward. It can sometimes help to break through this by developing a Proof of Concept or Prototype. This involves creating a working model of the proposed solution with basic functionality and limited data but with a working construct that end users can interact with to validate their thinking, help define scope, clarify requirements and build confidence in the direction of travel. The Proof of Concept is just that. It demonstrates feasibility. It builds confidence in the minds of the user that the initial concept has credibility and acceptance and confidence in the minds of the Agilient team, as delivery agents, that actual value is being delivered to the customer.

In effect, the Proof of Concept is the first stage of the agile development process. It is a very short "Timebox", no more than a couple of days, to create a baseline from which to move to the Exploration stage. Cloud services and the MooD software provide a flexible infrastructure to develop these proofs of concept in a safe but easily accessible environment'

8 BENEFITS IDENTIFICATION, REALISATION, MAPPING, AND TRACKING

Agilient have been involved in several major change programmes. Always, in such programmes a critical factor has been the realisation of benefits and the mapping of them, a golden thread from Project Outputs through to Programme Outcomes to Realisable Benefits through to Corporate Objectives. Fig 3
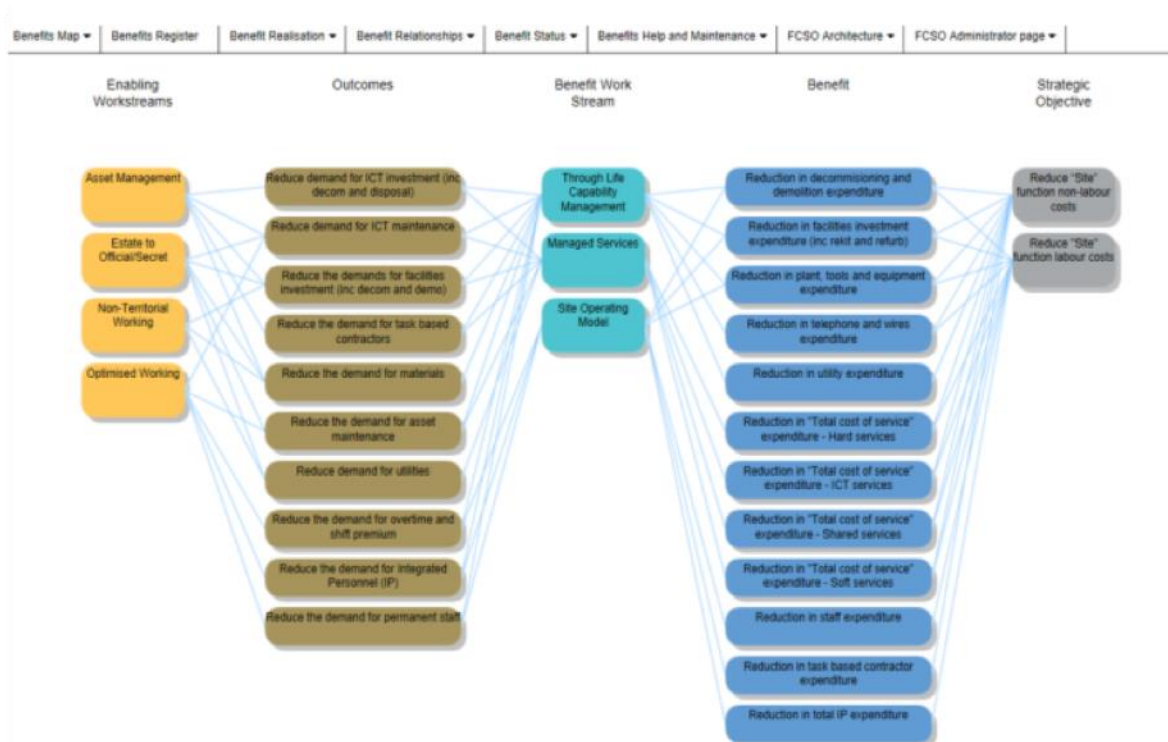

Fig 3: Example of a Benefits Map

Agilient provides cloud-based services at various levels. At the highest level we can support a customer in the identification of benefits driven by the need to achieve corporate objectives. We can help uncover the root causes preventing them from achieving their objectives. We can then help support the creation of a Programme Office to track outcomes enabled by projects delivering outputs helping to address the identified root causes. All of these can be brought together in a support tool that not only shows the interdependencies that exist but allows the attribution of measures to track and report on progress and allow causal models or 'what if?' scenarios to be investigated.

9 RISK, ASSUMPTIONS, ISSUES, DEPENDENCIES, AND OPPORTUNITY (RAIDO) MANAGEMENT

Risk and Opportunities are often handled separately from Assumptions, Issues and Dependencies. It is also useful at times to combine them (under the acronym RAIDO). Agilient have provided our customers with integrated tools to understand the relationships between these elements and as a result better mitigate risks and take advantage of opportunities. Risks and Opportunities tend to be context sensitive and context usually includes a set of assumptions. Changing assumptions can turn risks into opportunities and vice versa. It is generally stated that issues are merely risks (or opportunities) that have happened. It is no longer a matter of mitigation but one of dealing with the issue. Dependencies interconnect these things and ensure that mitigating against one risk doesn't increase the likelihood of a risk with greater potential impact or that addressing an issue

doesn't expose another risk. It is a means of challenging assumptions to ensure the baseline against which risks, and opportunities are assessed remains valid. All of these can be tracked and assessed over time as a coherent whole
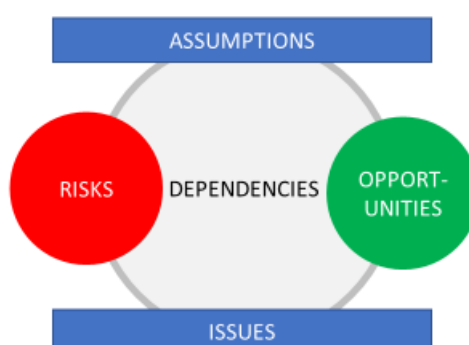

Fig 4: RAIDO Diagram

10 INFORMATION ANALYSIS, ASSURANCE, AND INTEGRATION

There is an old saying: "Garbage in, Garbage out". An IT solution is only as good as the data within it. Lack of confidence in the data can undermine the credibility of the whole solution. Agilient believe strongly in the importance of accurate data, whether it be extracted from various sources and imported into our models or input by end users through screens supported by cloud-based browsers. One of the issues we have found is that often there is no single version of the truth and that in many cases data is duplicated across more than one data source. In addition, data gets extracted from these sources to populate various spreadsheets and these spreadsheets provide information to other spreadsheets and so it continues. Once this begins to happen data integrity starts to deteriorate rapidly. We have concluded that rather than a single version of the truth, we should be looking for a single point of authority.

When looking to draw data from multiple sources into a single Information Management System absolute accuracy is probably not achievable in the first instance. Different sources of data will probably operate to different drumbeats, meaning that at any one point in time not all sources will be delivering an up to date set of data. Added to this, duplications and gaps and the picture becomes more distorted.

Agilient's approach is to recognise that this will happen. We identify all sources of data and then look to identify the owners of that data and who can be held accountable for its quality. From this analysis we arrive at a relative degree of confidence in the data rather than immediately start trying to build a 100% accurate set of data. We use this data to populate our models and drive our decision support dashboards. We use the model as a filter to start to identify duplicates and gaps and derive an assessment of the levels of confidence in the data or an assessment of its accuracy. This assessment is made available to the decision maker. This is where subject matter expertise plays a part. If for example the assessment says that the decision maker should have 90% confidence in the data making up the dashboard, they can make a call, based on their individual knowledge, experience and appetite for risk, whether they are prepared to make a decision. If the answer is no, then, because the owner of the data is known, they can be held accountable to improve the quality. Over time the quality of the data can be tracked and improved.

11 DESIGNING DATA DRIVEN MODELS FOR PERFORMANCE MANAGEMENT SOLUTIONS

There are Models that can be built to describe how the components of a problem or system interact with each other, these are often referred to as architectures or operating models. There are also decision support tools that present visualisations of data in ways which support the decision-making process. Agilient uses the MooD cloud-based software to bring these together into a single tool that mirrors what is happening in the physical world. Data flows from the real world into the model where it is filtered, processed, and aggregated as a series of interactive visualisations that can be used to reflect reality (a 'digital twin') to support decision-makers.

12 AGILE THROUGH LIFE CLOUD SUPPORT

Defence uses the term Through Life Management to cover the ongoing support of the solution. In IT terms it covers things such as bug fixing and new software releases. Anything over and above this, such as new or changed requirements, become the subject of a new project with new costs, new business cases and so on. Agilient has been involved in a number of projects where users aren't often clear about their requirements when they start out. Our Agile techniques have been used during the development phases of these projects, and the agile process tends to clarify these as it progresses meaning these projects were successfully delivered on time, within budget and to the customer's satisfaction. The product handed over has met the customer requirements as identified and relevant at the time. From the next day, of course, the requirements start to change because the external environment is always in a state of flux and often the deployment of a solution starts to act as a catalyst for internal change.

Agilient have developed their Agile Through-Life Managed Service to address the fact that requirements don't stop changing at FOC (Final Operating Capability). We extend the agile methodology into the in-service phase of the solution. We do this through a managed service contract rather than simply a maintenance and upgrade contract. The service is controlled by a Programme Control Board (PCB), managed by Agilient but owned and chaired by the Customer. The PCB sits regularly, determined by the customer in accordance with the demand for change. Fig 5.
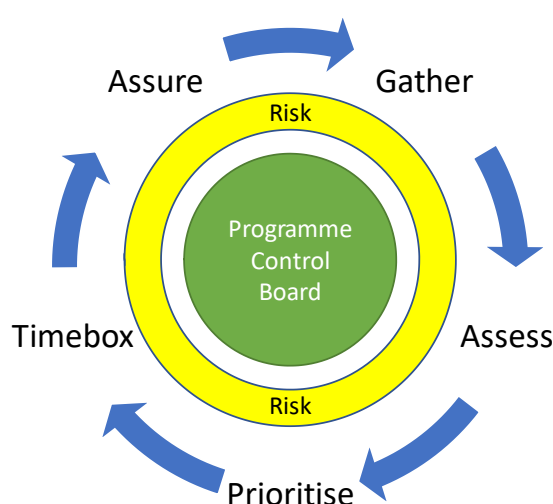

Fig 5: The Agile TLM Process

Gather. The cycle begins with the gathering of requirements and requests for change. These are collected and managed by a service desk established within the customer's environment.

Assess. The collected requirements are assessed to establish effort to deal with them and the resultant list is presented to the PCB.

Prioritise. The PCB prioritises the requirements to create a Prioritised Requirements List (PRL) based on an assessment of risk and opportunity. The PCB then agrees the set of prioritised requirements that will be tackled in the Timebox which immediately follows the PCB.

Timebox. The Timebox is a period of intense development activity, usually over two weeks. The number of requirements addressed is driven by the time and resource budgeted for the Timebox.

Assure. Following the Timebox comes a period of assurance. This will look at the outputs of the Timebox and ensure that they are of the correct quality, scalability, robustness, and performance. Feedback from this highly iterative process is captured to be input into the Requirements List for the next PCB.

PCB. The PCB is central to the whole process and ensures that any request can be put forward by any user. The volume is managed by what can be achieved within the Timebox. The Timebox looks to rapidly implement the agreed set of prioritised requirements as a means of visually agreeing those requirements with the customer. The customer has the flexibility to re-prioritise, but the constraint is always what can be achieved within the period of the Timebox. In this way solutions evolve over time but in a controlled way without losing the agility to adapt and adjust as required.

13 SUMMARY

Agilient endeavours to create within a client organisation a DevOps culture. DevOps is the combination of cultural philosophies, practices, and tools that increases an organisation's ability to deliver applications and services at high velocity: evolving and improving products at a faster pace than organisations using traditional software development and infrastructure management processes. This speed enables organisations to better serve their customers and compete more effectively in the market.

Under a DevOps model, development and operations teams are no longer "siloed." Sometimes, these two teams are merged into a single team where the engineers work across the entire application lifecycle, from development and test to deployment to operations, and develop a range of skills not limited to a single function. In some DevOps models, quality assurance and security teams may also become more tightly integrated with development and operations and throughout the application lifecycle.

Our teams use practices to automate processes that historically have been manual and slow. They use tools such as MooD and Cloud-based infrastructures, which help them operate and evolve applications quickly and reliably.