



## **Foundation for the digital enterprise**

A whitepaper by Fruition Partners

## IT4IT, foundation for the digital enterprise

A whole host of companies in all sectors all over the world are carrying out a digital transformation in order to be able to serve their end customers quickly and efficiently. Ordered today before 12 midday, delivered the same day! This changeover to a digital business is putting huge pressure on IT organisations. Somehow, they must ensure that the outdated IT environment that their organisation is still leaning on can keep up with the calls from their customers for greater speed, quality and service. And then there is also an unprecedented technology push to cope with, including the Cloud, Social Media, Big Data, DevOps, Mobility and the Internet of Things... It is clear that the whole IT set-up has to be changed root-and-branch in order to be able to keep pace with all these developments and business demands, and to keep tabs on and manage the growing number of IT vendors. In short, an entirely new way of working is needed, one that requires skills and competences that are different to those that IT professionals have needed up to now. The big question is naturally: what is the best way to handle this important changeover?

The IT4IT standard describes all the capabilities of processes, tools, data and reciprocal integration that will support the IT function and the collaboration with such IT stakeholders as the business, the system integrators and the external IT service providers.

In order to answer this question, the Open Group has developed an IT4IT reference architecture with a number of other market players including Fruition Partners. It is a vendor-independent architecture that allows you to manage your IT as a business. It has been designed to make IT predictable and efficient and to imbue it with business discipline, by providing it with integrated solutions that allow you to control and manage the entire IT chain. In addition to the architecture, it includes an operating model that is based on a value chain concept that is independent of tools and development models. In this sense, the reference architecture also complements all enterprise architectures and complies with IT governance standards such as ITIL, CoBIT and TOGAF. This makes it suitable for use both by organisations that work using the classic waterfall model and by modern businesses that take the Lean/Agile approach to development. The IT4IT standards and associated guidelines have been specially designed for professionalised work with IT across all silos and for the more rapid adoption of IT trends at lower cost and reduced risk.

### A new IT organisation

A key feature of the new IT organisation has to be to create integrated IT processes and IT tools that have continuous service improvement stamped into their DNA. IT will have to transform into a professional service broker that can buy in services from a wide range of external

service providers, integrate them and then offer them to the business. New ways of working will also have to be introduced, such as DevOps, Lean, Agile and Continuous Delivery. In addition, IT has to be able to respond quickly to all kinds of new developments, such as Bring Your Own Device (BYOD), Software Defined Networking (or better still: Service Defined Enterprise), Big Data, the Internet of Things, Mobility, and Infrastructure as Code. And last but not least, the entire IT infrastructure will have to be transformed into a hybrid form of internal and external cloud services such as SaaS, PaaS and IaaS.

### Not under control

In short: this transformation poses an enormous challenge for the CIO and his (or her) IT professionals. This is because in the average IT organisation, there is usually a stark contrast between the current situation and the demands made on the new services. The IT organisation has implemented many ITIL processes, with dozens of IT management tools being rolled out to support the IT tasks. These include a CMDB, a helpdesk system, monitoring tools, an enterprise architecture tool and tools for both development and test management. However, despite all these good-quality ITIL best practices and IT management tools, the IT service provision function is still not under control. IT tools are barely integrated, if at all, with it also being difficult to get a handle on IT costs, something that makes charging them on problematical as well. It is also difficult to make the SLAs that have been agreed with the business and vendors measurable. What's more, collaboration and integration between external IT service providers is proving problematical. A key issue remains the many manual IT activities that are barely supported - if at all - by tools other than spreadsheets and e-mail. In short, it may be quickly concluded that your average IT organisation still does not have its services properly under control.

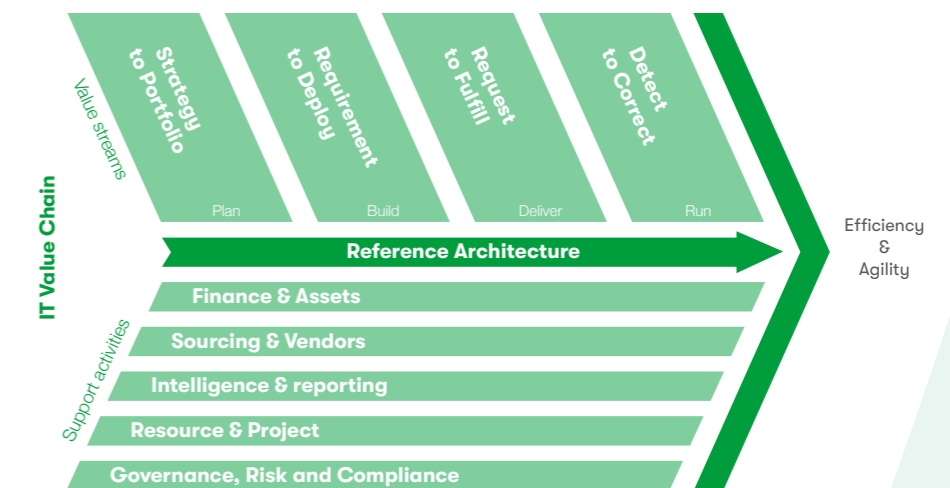
### The IT4IT forum

The Open Group has responded to this state of affairs by establishing a new working group under the name of The IT4IT Forum. The Open Group is an international organisation that works closely with businesses and vendors to develop various standards such as the TOGAF (The Open Group Architecture Framework). The IT4IT Forum has been set up in collaboration with a whole host of IT vendors including Microsoft, HP, Oracle and IBM. Dutch companies that use IT4IT include Shell, Delta Lloyd, ABN AMRO Bank and the Netherlands Tax and Customs Administration. The aim is to work together with buyers and providers to develop a standard IT management model that will enable its users to optimally organise and manage the new IT set-up. IT4IT is an acronym that refers to all the IT that you need to manage the IT services; in other words, to

IT the IT processes. The IT4IT reference architecture provides a comprehensive description of all IT functions throughout the entire life cycle of IT services, i.e. including development and management. The reference model can be used as a blueprint for how the IT organisation has to operate and how the various IT tasks can be supported by an integrated set of IT management tools.

### It's supplementary, not a substitute

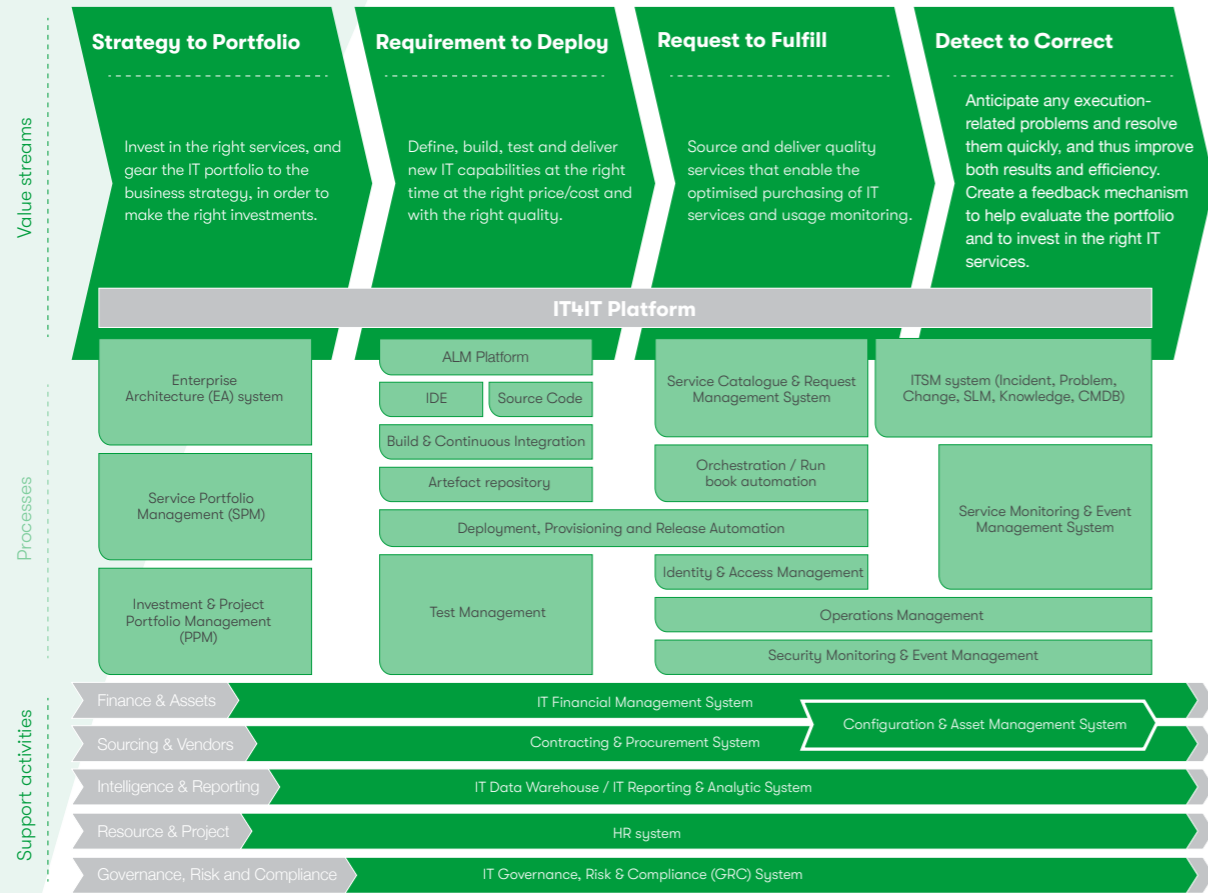
The IT world already has many best practices and models such as ITIL, COBIT, CMMI, ASL and various ISO standards. The question is: what added value can IT4IT deliver in this particularly crowded playing field? Well, it should be stated at the outset that the IT4IT reference architecture should not be seen as a substitute for existing models such as ITIL or Scaled Agile Framework (SAFe). Instead, IT4IT supplements existing best practices to provide practical guidelines on using vendors' products to implement IT management. IT4IT arose from an architectural vision that was designed to come up with a blueprint for IT services. In other words: to define an architecture that combines organisation, IT processes, information models and tools.



IT Value Chain

In addition (and in contrast to ITIL), IT4IT does not focus on processes but on the management of integrated chains that are based on value streams. A key focal point is integration between IT activities, data and tools. It is all about optimising the chain of processes and tools in order to develop and manage the IT services. In addition, ITIL fails to provide adequate guidelines for the actual implementation of IT processes. Moreover, ITIL lacks a number of essential elements such as enterprise architecture and development, which need to be fully integrated in new IT (such as DevOps) in particular. Ultimately, IT4IT has to provide guidelines (lines of action) for the setting up of IT value streams that incor-

porate the right automated IT resources, in order to optimise both management and delivery. It is also designed to be a practical means of working with vendors of IT tools so as to achieve standard tool design and integrations, something that is an almost impossible task these days.



IT4IT, een allesverbindende architectuur

### Value streams

The IT4IT reference architecture consists of four value streams. A detailed discussion of each value stream is included in the IT4IT blueprint and sets out the series of activities needed to design and provide a particular service. We provide some brief details of this below.

Invest in the right services, and gear the IT portfolio to the business strategy, in order to make the right investments.

#### 1. Strategy to Portfolio.

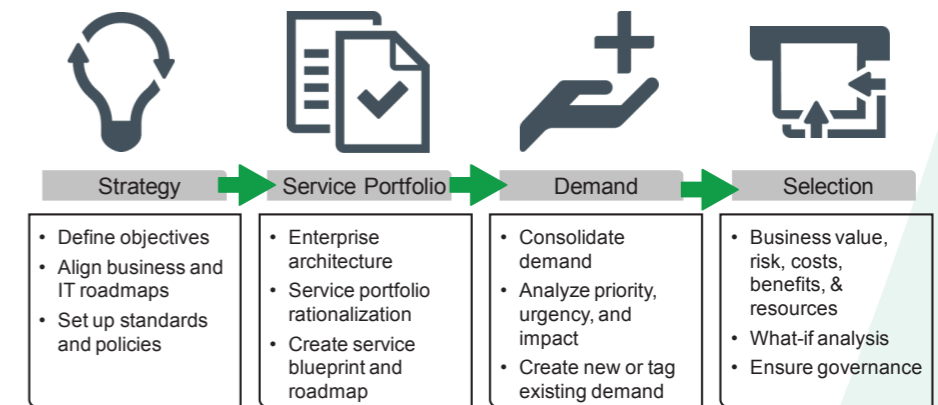
The Strategy to Portfolio value stream determines which IT strategy and IT portfolio is needed to ensure that the IT set-up is properly dovetailed with the business strategy.

Define, build, test and deliver new IT capabilities at the right time at the right price/cost and with the right quality.

Typical questions that are answered in this value stream are:

- Which IT services (and applications) do we currently have in our portfolio?
- How well are these services and applications geared to the business’s strategy and expectations (i.e. to the current and future business needs)?
- What is its added value for the business?
- What do these services and applications cost, and what are the related risks?
- How can we simplify and rationalise the service portfolio?
- Which standardised technologies and infrastructure services may be used?
- How are services and technologies purchased from the various providers?
- Which technologies have now reached the end of their life cycle and need to be replaced?
- What IT investments have to be made?
- What does the roadmap for the next few years look like?

In other words, the value stream that is Strategy to Portfolio focuses on managing the IT services portfolio and on creating a holistic view of this portfolio, with the dual aim of enabling better investment decisions to be made and of relating the cost of IT to its value for the business.



Strategy to Portfolio

#### 2. Requirement to Deploy.

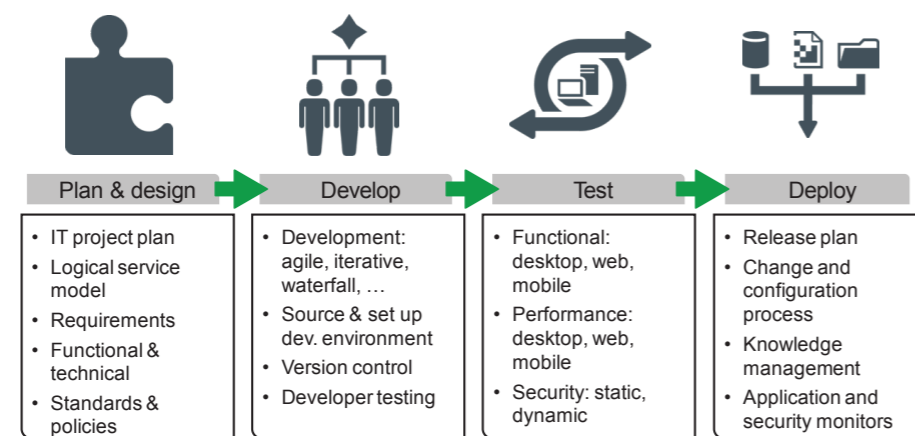
The value stream Requirement to Deploy provides a framework both for the development/sourcing of new services and for the adaptation of existing services. The purpose of this value stream is to generate predictable, cost-effective, high-quality results. This value stream also ensures that the services developed fulfill the needs of both the business and operations (including in terms of security, availability, maintainability and performance).

**“Establishing an IT4IT capability is not just about the toolset, but more about the mind-set.”**

This relates to both customised applications and standard packages. Requirement to Deploy manages all the changes to the services during the entire life cycle, including major & minor releases and updates, irrespective of the development method (Agile, waterfall model etc.).

Typical questions that need to be answered in this stream are:

- How can we roll out new functionality and features through continuous delivery, that truly add value to the business?
- How do we prioritise new requirements for next releases?
- How can we automatically build, test and deploy new software?
- How do we manage traceability and transparency through design, code, build, and test to deployment?
- How do we make sure that software management and maintenance are taken into account during development?
- How are detailed design specifications verified against IT standards and policies and the overall solution architecture?
- How do we manage designs, documents, and other knowledge captured during development?



Requirement to Deploy

Source and deliver quality services that enable the optimised purchasing of IT services and usage monitoring.

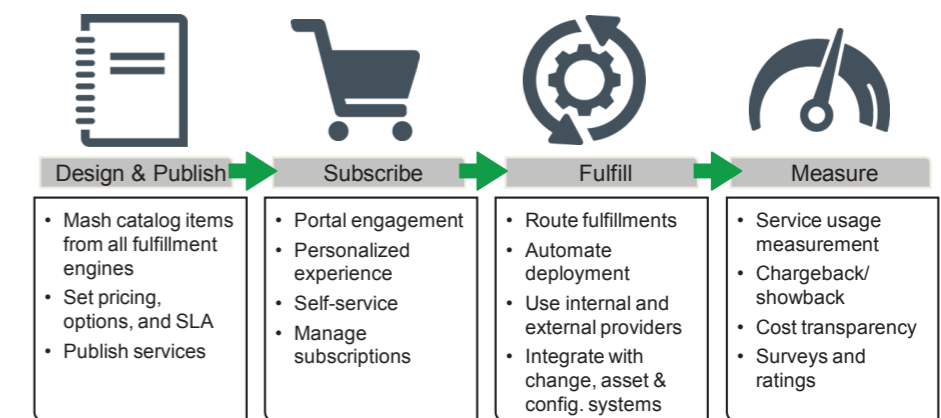
**3. Request to Fulfill.**

This value stream connects the various customers (business users, IT professionals and end customers) with the products and services that they need to be both productive and innovative. The focus here is on time-to-market, repeatability and consistency for these customers in respect of their requests for IT services and their obtaining of them. In this way, this value stream provides customers with a consistent ‘consumption experience’, in order to ensure the smooth purchasing of internal and external services. Request to Fulfill helps your organisation

to transform itself into a genuine service broker organisation that maintains a catalogue of all the services provided by the various vendors. What’s more, this value stream helps to manage and evaluate the quality of these vendors.

Typical questions that need to be answered in this stream are:

- How do we offer the business an integrated and standard service catalog for all IT services we provide?
- How do we manage that users have only access to services they really need?
- How do we monitor the actual usage and consumption of IT services?
- How is this data published back to the consumer?
- How do we quickly connect new service providers to the standard catalog?



Request to Fulfill

Anticipate any execution-related problems and resolve them quickly, and thus improve both results and efficiency. Create a feedback mechanism to help evaluate the portfolio and to invest in the right IT services.

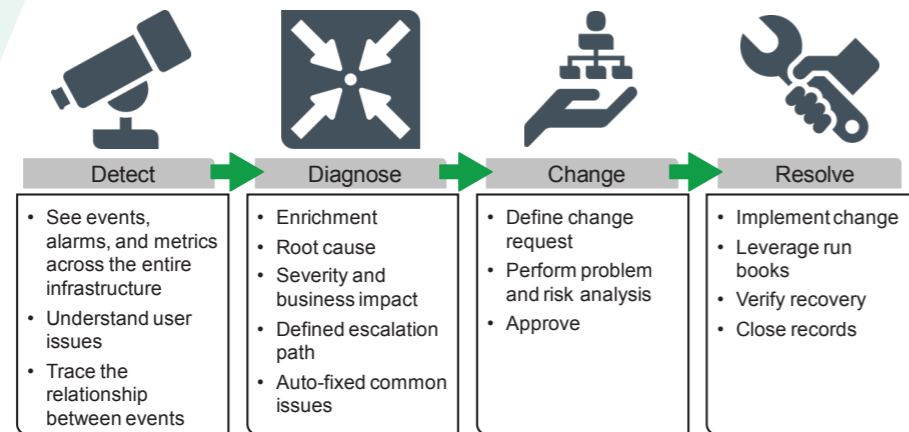
**4. Detect to Correct.**

The value stream Detect to Correct provides a framework for the integration of monitoring, management, restructuring and other operational aspects that relate to services that have either been realised or are still under development. It delivers new insights that provide a better understanding of the mutual dependencies between the various operational domains including event control, incident control, problem control, change control and configuration management, this being an important precondition for resolving operational issues quickly and effectively. In this sense, this value stream - including through its use of professional monitoring - helps to improve the continuity and quality of the IT services provided to the business.

Typical questions that need to be answered in this stream are:

- How can we timely up- and downscale capacity, following the volume of the business?

- How do we keep the CMDB up to date in order to monitor coherence and dependencies in the IT-landscape?
- How can we preventively bring problems to the backlog in order to solve them in the next release?
- What security monitoring tools and procedures are available to detect security events or vulnerabilities?



Detect to Correct

### Transformationplan

The first version of the IT4IT reference architecture was published in late 2015. However, more still needs to be done, including the defining of standard interfaces between IT service providers for the exchanging of data. It is also important that vendors of IT management tools, such as HP, IBM, Microsoft, ServiceNow, BMC, SAP and VMware, ensure that their tools are developed in line with the Open Group's IT4IT architecture.

In practice, an IT organisation needs a central contact point for IT4IT-related matters. This could be an IT4IT service owner & service architect who can work with the various IT departments (and process owners) to produce a blueprint or target architecture that sets out the way in which the future IT organisation should look in terms of processes, tooling and data. The IT organisation should look first at the current set-up of the functional components and IT value streams specified by IT4IT, for example by analysing the existing IT workflows (and processes) and by cataloguing the IT management tools used for these flows/processes. The IT4IT blueprint can then be used to draw up a transformation plan to transform the IT organisation and to prepare it for the new IT.

### The value of IT4IT for your organisation

The most important contribution that IT4IT makes to a modern IT department is to create meaningful coherence between all the conceivable aspects of IT, including the tools, the processes, the portfolio, the costs (and their charging on), the software development, and the management and guidance of external vendors. It is an all-encompassing and integrated architecture that is independent of the IT vendor chosen.

IT4IT is also an essential component when it comes to the implementation of new methods such as Continuous Delivery and DevOps. The framework provides practical lines of action for IT organisations (including complex and outdated ones) to make a manageable changeover to becoming a fast, manoeuvrable and agile IT organisation that can be managed as a business, and who as a result can provide the business with outstanding service at all times. A firm foundation for the digital enterprise.

## About Fruition Partners

Fruition Partners is the IT4IT company that transforms IT organisations into dynamic, agile service brokers, ready for any change in the future. By enabling IT professionals, processes, tools and external IT vendors to work coherently, Fruition Partners gives CIOs a solid grip on their service provision, enabling them to support the digital enterprise proactively with innovative services.

The company draws up a new blueprint for the IT department, streamlining and automating the primary processes. It deploys best practices and supports personnel during the transformation, gradually creating a coherent operating unit. The result is an IT department that delivers better service for the business and enables faster rollout of releases with higher quality.

Fruition Partners develops proven solutions based on the IT4IT Reference Architecture of The Open Group, in which the organisation itself participates. In combination with proven best practices it facilitates fast, tangible results.

Please find below the names of just a few of the hundreds of Standard Open Group members, a complete list of which can be found at [www.opengroup.org](http://www.opengroup.org).

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