



17th July 2016

Next Generation IT Operating Models and IT4ITtm Reference Architecture

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Meeting disruption with Innovation

‘Everything has changed except our way of thinking’

IT departments are facing the Heat; it appears that ‘Do Nothing’ is no longer an option. The world is seeing a wave of innovation which is setting the order of things on its head.

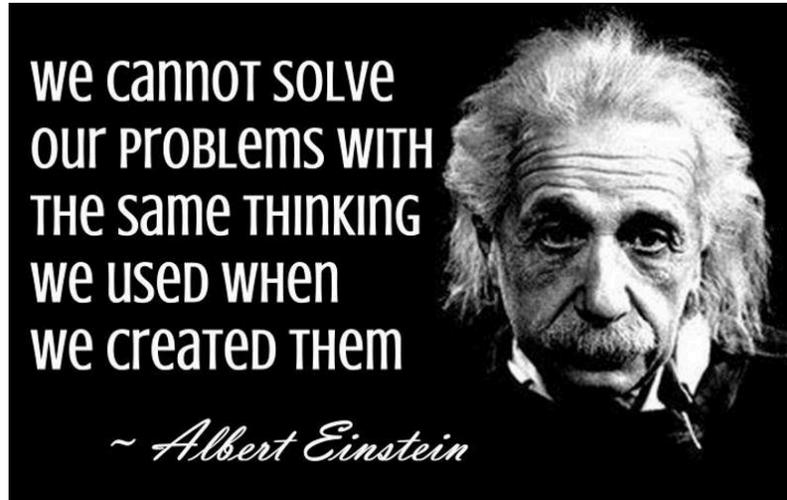
The wave of innovation driving the world is visible in all walks of life; the traditional role of IT department as a supplier of technology and acting as a repair shop; is suddenly appearing to be a ‘Keep the Dinosaurs Alive’ operation.

Legacy, Silo Based Technology delivery, while having reached us this far, is suddenly woefully inadequate, for IT to thrive in a world where businesses are facing challenges to their established order.

There is an urgency to do things differently. Instead of maintaining the ‘Status-Quo’; and celebrating being “Always Green”; IT is becoming a strategic asset, driving innovation and integrated Strategy Road Maps; where technology and business work seamlessly to provide customers with what they want, before someone else takes customers away.

Breakthrough technologies are driving innovations never seen before. To manage and effectively leverage these new ways of being, IT needs to transform from being an ‘Automobile Mechanic Shop’ and transform itself, into a ‘Customisation Studio’ that enables business to be thrive in the disruption driven world of the new millennial.

Need for New Ways of Thinking and Being



“It’s no longer what IT can do, rather, it’s what the Enterprise can do with IT”.

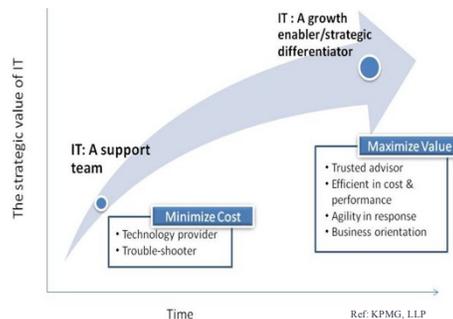
After many years of improving IT management capabilities; applying many best practices (and standards); configuring countless IT management tools; and defining dozens of IT processes; most IT organizations have to admit they are still not in control.

Despite the trillions of dollars spent on ITIL and other frameworks, the problems that plague IT Departments have not gone away. They now realise that a different approach is needed; because they lost sight of the bigger picture as a result of organizing in silos; focusing on individual processes; teams; and tools.

This legacy, hinders the IT function from; establishing end-to-end workflows; and looking from the outside in. These are vitally needed, changed viewpoints; if IT is going to enhance the value it provides to the business.

The realization that IT transformation is not about moving everything from standalone servers into a public or private cloud; 'SLA Green' does not mean satisfactory consumer experience; etc., is begging to emerge.

Disruptive Technology based innovation, is changing the way enterprises engage with their customers and provide services. In a ‘Domino Effect’ the IT Departments are finding that their Businesses’ now want a new relationship with them, they want them to suddenly become Technology Wizards, Cowboys; who deliver what is needed, when it is needed, to meet the business strategy required to overwhelm the competition achieving ‘Millennial Customer’ delight.



The Chinese saying "may you live in interesting times" fully applies to the current era.

The illustration alongside describes how the changing technology environment and business user IT awareness, availability of Enterprise Class SaaS & IaaS and other services are moving CIO imperatives from ‘Minimising Costs’ to ‘Maximising Value’.

The need of the hour is shifting from a ‘Silo Ecology’ to an **Innovation Ecology**; with IT as a broker, for the business, flexibly driving technology innovation for continued business success in the new millennium.

Next Generation IT Operating Models



We are using a Legacy dictated 'Technology Silo Operating Model'. We need to move to a 'Service Oriented Operating Model'

Next Generation 'Service Oriented IT Operating Models' are rapidly replacing the 'Technology Silo Based IT Operating Model' of the yesteryear. People are innovating approaches, losing inhibition against SaaS and IaaS services, they are achieving remarkable time to market, companies like Google, Amazon, Facebook, Twitter, have mastered the art of making continual releases without breaking things.

IT Folk, are a typically highly strung, group of individuals. This is not at all surprising seeing the changes that they had to adapt to within the period of a lifetime. The huge drama surrounding the Disruption Story, is a great example of cycles that have gone before. The architecture based approach to the problem, can be used to find a path out of all these different opinions and noise.

The Problem can be simply defined as follows.

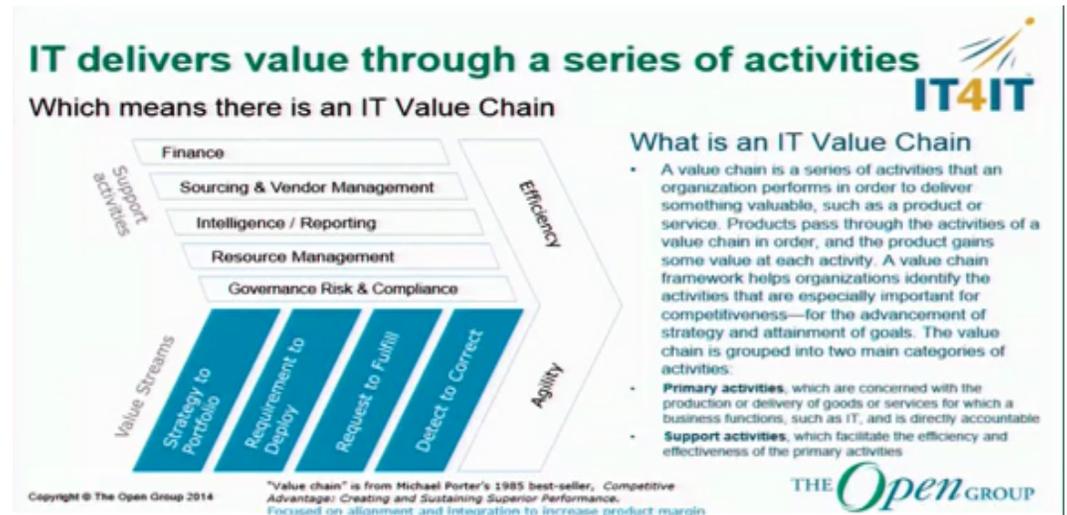
We are using a Legacy dictated, 'Technology Silo Operating Model'. We need to move to a Service Oriented Operating Model.

What does this result in?

- Instead of saying my server is running 99.99 % uptime, we say my Purchase Order Management Service has a 99.9 percent usability rating.
- We are able to collaborate with the business, in innovating and exploiting evolving technology and induct them into our Enterprise Information System and establish a Boundary Less Information Flow.
- Where we do not have to use our own money on poorly understood, or unpredictable demand and Infrastructure costs can be managed as elastic expenses directly related to demand growth.
- Where we embrace change and provide business with Rapid Time To Market for their Ideas; and unleash the innovative spirit, that finds new possibilities, not known before; and provide services to customers, who till then did not know that they needed them.

The Broker–Integrate–Orchestrate (BIO) articulates the next generation Service Oriented IT Operating Model and identifies the characteristics and new ways of working of the Business-IT Collaboration; where the two groups fuel each other's innovation with freedom to find solutions from the market place; leverage opportunities that SAS, IAS and technology collaborations; while managing the integration with well-established and stable core legacy solutions using 'Bi-Modal Techniques'.

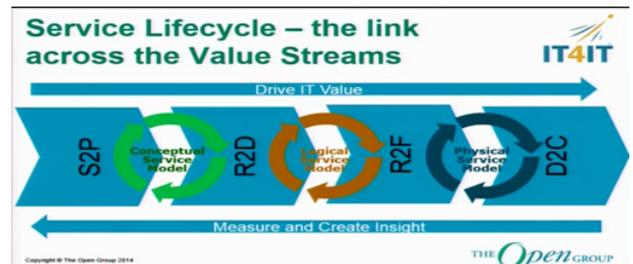
IT4IT™ Reference Architecture; a Valuable Member of the Tool Kit for transformation to next generation Service Oriented IT Operating Model



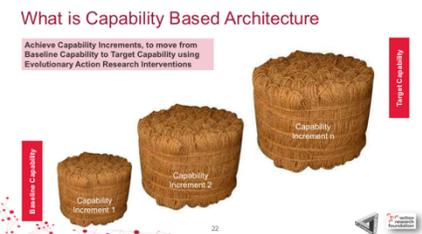
Potter's Value Chain applied to IT a refreshing new approach for the Next Gen IT Operating Model

IT4IT™ and its associated Service Lifecycle Model enable organisations to finally view the end-to-end Service Model in a holistic manner and ensure that the IT Service Drives the Values, that were Intended in the first place; and that these values are continually improved by measuring and creating insight.

It is different from the legacy frameworks and standards such as ITIL; ISO 20000, COBIT, etc., It recognizes and leverages these legacy knowledge bases, but focuses on the IT Value Chain, mounted on a Service lifecycle.



The reference architecture can be used by Architects to visualize and identify a Capability Increment Road Map, that can help IT Departments and their partners in Service Provisioning, can adopt, to systematically manage the transformation from their As-Is (Silo) operating model and get their people to adjust to this new evolving role of being the Broker in the next generation Service Oriented IT Operating Model.



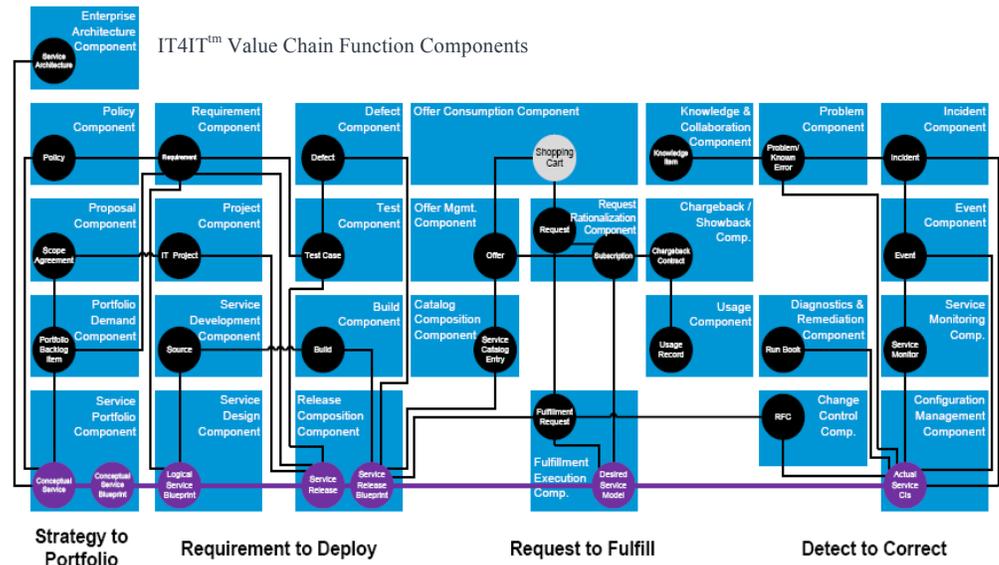
Unlike Libraries and Standards, Reference Architectures provide a prescriptive model that hopefully will be adopted by all stake holders in the IT Sweep Stakes.

Standards are required for establishing function architectures that provide, end-to-end Lifecycle transparency across the multi-sourced service Delivery Model and enable collaboration with the business as they innovate in meeting the needs of the 'Millennial Market Place' thriving on the new technologies and ways of working.

A word of caution 'IT4IT™ should be treated as a Key member of the Transformation Tool Kit and not the Magic pill.

IT4ITtm Reference Architecture – Vital Tool for Establishing Multi-Sourced Value Chain Based Next Generation IT Operating Model

IT4ITtm Reference Architecture; A valuable Member of the Transformation Kit, Not a Magic Pill!



The IT4ITtm Reference Architecture Identifies the Functional Components applicable to each Stream in the IT Value Chain. This enables architects to prepare practical ‘Capability Increment Road Maps’ that will provide maximum ‘Kick for the Buck’ and generate success that can be used to breed more success and grow towards establishing an Innovation Eco System that behaves like a Customisation Studio instead of a Repair Shop.

The four Value stream in the Value Chain;

Value Stream one - **Strategy to Portfolio(S2P)**, identifies how Business and IT collaborate in moving strategic requirements into the portfolio.

Value Stream Two - **Requirements to Deploy(R2D)**, changes the way Requirements are thrown over the wall and ensures how investment decisions are staged to ensure Value Delivery while introducing much needed flexibility using agile methods and incubating solutions from initial prototyping to full use in the business process.

Value Stream Three - **Request to Fulfill(R2F)**, sets in place mechanisms where everything is offered as a service, whether it is a Business Process requirement or an IT requirement, consumers can seamlessly assemble an IT service for their requirement from the components which are managed as a subscription.

Value Stream Four - **Detect to Correct(D2C)**, establishes mechanisms to monitor service performance and Quality across the Supply Chain with the focus on Consumer Service Usage Experience.

IT4ITtm identifies the Functional Components and Key Data Objects of each value stream in the IT Value Chain and prescribes Data or records produced and/or consumed to advance or control the service model as it progresses through its lifecycle phases.

Data objects can take a physical or digital form and are produced, consumed or modified by data objects:

- Key Data Objects – essential to managing or advancing the service lifecycle
- Auxiliary Data Objects – important but not essential to the service lifecycle

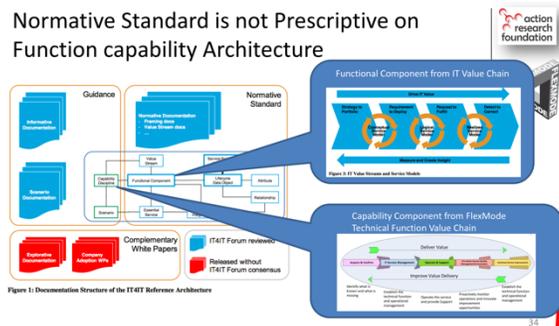
The Key Data Objects (black Circles) annotate an aspect of the service model in its conceptual, logical or physical state. Service Model Data Objects (Purple Circles), A special data object, identifies key data objects that the ‘Conceptual Model’, should contain as an input, for developing the Logical Model (and the Service Blue-Print) and from there progress to the physical Model that will be in Production.

The IT4IT™ RA also indicates the relationships for the Service Model Backbone which provides a holistic view of a service and traceability of value delivery from conceptualisation to realisation.

Lessons from a practical application in a Large 3rd Party Service Provider.

IT4IT™ is a vital and critical component of the Transformation Tool Kit required for moving from a ‘Technology Silo Architecture’ to a ‘Service Oriented Architecture’ for ITSM

An important aspect that is seldom highlighted is that the Functional components prescribe the Technology Components. The standard is un-abashed in declaring that; everything other than the Functional Components, are out of Scope of the Normative Standard (the prescription).



This fundamentally means that the specification is purely a technology object, in simple English it means a form which will collect the Data Elements pertaining to the functional components. It also means that while specifying what should be collected, it is silent on the aspect of the capability required to collect and manage the data component.

This is the essence of a Reference Architecture. Having said the above there is considerable guidance available for the Transformation Architect to understand the essence of the Reference Architecture and to be able to specify the capabilities that will be required.

Another important aspect about the IT4IT™ Reference Architecture is that its presentation seems to imply that the Model is Single Planar, or where there is a single IT Function under one management overseeing the end-to-end service supply chain.

The reality is multi-sourcing, in such cases the single plane depiction needs to be further abstracted and responsibilities for the Data Object and their use spread across multiple Service Component providing service providers consolidated by a Single Service Owner.

The reference architecture and the guidance together provide

The Author has articulated the FlexMode Technical Function Value Chain and its associated Value Stream Function Capability Model using the Guidance and the Reference Architecture effectively.

The IT4IT™ is therefore a vital and critical component the transformation tool kit required for moving from a Technology Silo Architecture to a Service Oriented Architecture for ITSM

About the IT4IT™ Reference Architecture

- IT4IT™ RA, an Open Group standard, provides a vendor-neutral, technology-agnostic, and industry-agnostic reference architecture for managing the business of IT, enabling insight for continuous improvement.
- IT4IT™ RA, provides the capabilities for managing the business of IT that will enable IT execution across the entire value chain in a better, faster, cheaper way with less risk.
- T4IT™ RA, is industry-independent to solve the same problems for everyone.
- T4IT™ RA, is designed for existing landscapes and accommodates new IT paradigms such as cloud-brokering, DevOps, Bimodal IT, Agile, and Lean IT.
- T4IT™ RA, complements existing process frameworks and methodologies (e.g., ITIL®, COBIT®, and the TOGAF® standard) by taking a data-focused and solution oriented implementation model perspective, essentially specifying what information is needed and how IT activities can be automated across the entire value chain.

Values from IT4IT™ Reference Architecture

The IT4IT Reference Architecture and value chain-based IT operating model are designed to provide a holistic and integrated foundation for IT management that offers this fundamentally different approach to managing the business of IT.

- The IT Value Chain and IT4IT Reference Architecture represent the IT service lifecycle in a new and powerful way.
- They provide the missing link between industry standard best practice guides and the technology framework and tools that power the service management ecosystem.
- They provide a new foundation of how to organize and run the business of IT.
- Together, they deliver a welcome blueprint for the CIO to accelerate IT's transition in becoming a service broker and service integrator focusing on delivering value to the business.
- They also address management challenges brought about by new technologies or trends such as mobility, cloud, big data, security, Internet of Things (IoT), containers, Software-Defined Networking (SDN), and Bring Your Own Device (BYOD).

Organizing the IT operating model based on the IT4IT Reference Architecture allows organizations to:

- Focus on the true role of IT: to deliver added-value services that makes the company more competitive and innovative
- Become more responsive to deliver changes and act upon a continuously changing technology and business landscape (becoming a Lean and Agile IT function)
- Support the multi-sourced service economy; enable new experiences in driving the self-sourcing of services that power innovation
- Improve the overall performance and efficiency of the IT function and its capabilities to deliver exceeding expectations
- Create an efficient and streamlined IT service organization by automating IT activities from an end-to-end value stream perspective
- Attract and retain the vital IT skills and competences required to manage the new IT ecosystem
- Control risks associated with IT to ensure secure and reliable operations for the business

Adoption of the IT4IT Reference Architecture enables an IT organization to optimize the IT management activities throughout the IT service lifecycle by creating a more mature and professional IT function.

This is realized by implementing a standard-based holistic IT management capability, integrating tools from different vendors, supporting (and automating) end-to-end workflows, and providing standard interfaces to collaborate with external service providers while leveraging established best practices.

About the Webinar

Who should attend:

Anyone interested in the future of IT Operating Models and interested in knowing more about the very new and important work done by the Open Group to create a reference architecture for IT Service Management.



About the Author:

Sukumar's passion in life is organisational transformation to improve quality of life by improving capabilities.

Sukumar is the CEO and Principal Architect of a Boutique ITSM Enterprise Architecture Studio called Action Research Foundation, He is well known for his work in creating Service Oriented ITSM Architectures and then applying organisational change methodologies such as Action Research to establish a community of practice required for changing 'Ways of Working' in IT Departments of Large Enterprises.

He has considerable experience in Architecting and establishing Service Oriented Architecture frameworks and their underlying Application Layers using Action Research to achieve organisational change, service orientation and focus on customer outcomes.

He has pioneered, the FlexMode[™], A Paradigm Shifting methodology framework; for transforming from 'Silo IT Operating Models' to next generation, 'Service Oriented IT Operating Model'.

The Framework has enabled his customers to achieve paradigm shifts and realise values from the time and money they spend on IT Service Management Activities and leveraging their investments in IT Service Management Tool Suites to establish and manage End-to-End services in a Multi-Sourced Environment

His work with Tata Motors to establish an ITSM automation layer using BMC Suite of ITSM Tools won the 2010 Award for Enterprise and IT Architecture Excellence in ITSM.

The work at Tesco once again took the 2011 Award for Enterprise and IT Architecture Excellence. At Tesco he helped architect the ITSM Service Maps, deploy the configuration on the ICCM tool, first for the UK and then transported across 18 countries while consolidating support functions into a self-owned, offshore organisation.

During the past years he has worked in establishing initiatives that create internal architecture capability and then to use the capability to manage the transformation from Silo Based IT Operating Models to the Next Generation Service Oriented IT Operating Models. He enjoys diverse cultural experiences and has led architecture initiatives for diverse domains including Banking & Finance, Automobile Manufacturing, Brick and Mortar Retail, E-commerce, Telecom and Ecommerce; for organisations from across the world, including Rakuten of Japan.

In his last project for a Large International Service Provider, he led the architecture team to an innovative solution; applying capability based planning to creating Technical Functions in 3rd

Party Service provider organisations; while simultaneously providing their people with a systematic capability growth ladder that establishes a continuous rating system based on both BAU and Improvement Activities.

This ground breaking project, used TOGAF ADM to manage the architecture development, used the IT4IT™ as a reference architecture, Skills Framework for the Information Age from the SFIA foundation, ITIL, COBIT, ISO 20000, and other applicable knowledge bases to establish a capability profile in the dimensions of Professional Skill, Technical & Process Knowledge, Behavior Skills and Qualifications.

This innovative new approach to establishing next generation IT Operating Models and help organisations to establish a Capability Increment Road Map, has received international attention and a paper titled “Architecting the next generation IT Service Provider Organisation using TOGAF® with IT4IT™ RA and SFIA 6™” was presented in the Open Group, Enterprise Architecture Conference, London 2016.

He is acknowledged as a personal contributor to the IT4IT™ V 2.0 Reference Architecture and a Reviewer of the IT4IT™ Foundation Study Guide. He is one of first to be foundation certified and a member of the Beta Train the Trainer programs. ARF is currently on of the 11 organisations accredited, by the Open Group, for training and conducting exams.

Further details about his work and philosophies is available @
<https://in.linkedin.com/in/sukumardaniel>