The South African EA Forum

The EA forum is a social network event sponsored by the Open Group in South Africa. The EA forum started in 2005 and occurs every second month or so in the major centres with one event each in Durban, Johannesburg and Cape Town. At the EA forum, industry leaders share their experiences and knowledge of architecture and related topics. Real-world case studies highlight how business problems are solved using the discipline and practice of architecture. The event is obviously also an opportunity for peers, colleagues and industry players to network and collaborate.

For more information or to submit your topics please contact Stuart Macgregor: stuart.macgregor@opengroup.org Tel: +27 11 805 3734

http://opengroup.co.za/ea-forum

Follow the EA Forum on Twitter…

Twitter: @EAforumSA #ogza
Leading the development of open, vendor-neutral IT standards and certifications

http://opengroup.co.za
Defining “IT Service” for the IT4IT™ Reference Architecture

This document is designed to complement the IT4IT Reference Architecture, Version 2.0 by providing explorative information about aspects of the reference architecture. In this paper we explore the definition of IT services that is used across the IT4IT Reference Architecture (RA) body of work.

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Reference W161
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30 pages
See also C155 The Open Group IT4IT™ Reference Architecture, Version 2.0 20 Oct 2015

Subject: IT4IT (See more like this)
Type: White Papers (See more like this)

Recommendations
IT4IT™ Agile Scenario
IT4IT™ for Managing the Business of IT
Shell and The Open Group IT4IT™ Reference Architecture, Version 2.0
TOGAF® Version 9.1 (90-Day Evaluation License)
TOGAF® Version 9.1
Louw Labuschagne is a specialist consultant and trainer at Real IRM. As an experienced professional in the field of Enterprise Architecture, he has developed a reputation over the past 20 years as a thought-leader in this field. Louw has operated in a broad range of disciplines: including strategist, architect, modeller, analyst, speaker and trainer.

He holds an M. Tech from the Tshwane University of Technology, a B. Tech from Pretoria Technikon, and an MBA from Bond University. He's also certified as a practitioner in TOGAF™ 9, ArchiMate™ 2, and Zachman.

With his active contribution to a number of standards, and by publishing several whitepapers, Louw has played a key role in the development of the EA profession in South Africa and across the world.

And by leading teams that have established and grown EA practices within many of SA's large organisations – including some of the major banks – Louw has helped these organisations to transform their operations.

Louw's passion for sharing, collaborating and guiding others is reflected in his training and speaking roles – to build strong relationships in the industry and among clients, and become a trusted business partner that guides organisations towards EA transformation.

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IT4IT™ Reference Architecture
AN OVERVIEW
Presented by Louw Labuschagne
CONTENT

» WHY DO WE NEED IT4IT
» WHAT IS IT4IT
» HOW DOES IT4IT AFFECT OR INFLUENCE OTHER ACKNOWLEDGED FRAMEWORKS
» CONCLUSION AND QUESTIONS
The Open Group

» Architecture forum
  – TOGAF 9.1 [Standard]
  – Business Capabilities [white paper]

» Archimate forum
  – ArchiMate 2.1 [Standard]

» SOA workgroup
  – OSIMM 2.0 [Standard]

» EMMM forum
  – Exploration & Mining Reference Architecture[Standard]

» IT4IT forum
  – IT4IT Reference Architecture 2.0 [Standard]
  – IT4IT for the Managing the business of IT [guide]
WHY DO WE NEED IT4IT™ ?
A New Style of IT has emerged...
Based on Forces Transforming Business today

As of 2013 we have...
- 1 billion smart phones users
- 42% growth in smart phones users y/y
- Estimated 10 billion smart phones by 2020
- 4 of 5 employees use personal device for work
- 80% of BYOD activity is not managed
- Employee-owned devices will be compromised by malware DOUBLE the rate of corporate-owned devices.

Hype is over...
- Demand for cloud skill growing at 6x IT skills
- 80% of companies saw productivity gains
- 50% of US Government has moved to the cloud
- 75% of SME’s use cloud services
- Total public cloud market in 2016 will be $206.6 billion

Big Data
- Every 60 seconds...
  - 98,000+ tweets
  - 695,000 status updates
  - 11 million instant messages
  - 693,445 Google searches
  - 168 million+ emails sent
  - 1,820TB of data created
  - 217 new mobile web users
WHY DO WE NEED IT4IT?

*IT4IT is an operating model for the “business of IT.”*

- There has been much IT management guidance, but there are a number of **gaps** and **issues**.
- Most of what the broader community thinks of as “IT standards” are **technical** e.g. TCP/IP, HTTP, HTML!
IT4IT™ is a management standard

IT4IT is an operating model for the “business of IT.”

» Collaborative

» Agile/Lean approaches dominate IT delivery

» Focus on enabling the end to end flow of digital functionality
WHY DO WE NEED IT4IT? (Contn’D)

IT4IT covers the IT “waterfront” from enterprise architecture to product and project management to IT operations, as a multi-layered, precisely expressed reference model. No other standard is positioned to do this. (Charles Betz)

» Existing standards are proving slow to adapt

» Standards are proprietary

» IT management standards NOT developed explicitly as a full, multi-view reference architectures
WHAT IS THE PROBLEM WE ARE SOLVING WITH IT4IT?

» Lack of cooperation across all IT
» Insufficiently integrated IT management toolsets
» Inability to gain true insight
» Impossible to tackle disruptive innovations like cloud, agility, mobility, BYOD, …
IT4IT Value Propositions

For ‘consuming IT organizations’ e.g. customers like Shell, Boeing Ability to track cost, performance, business value and risk as a basis for improvement decisions
  - Dramatically reduced TCO of IT management solution

For software vendors e.g. IBM, HP, Microsoft, Oracle
  - Deliver integrated solutions at lower cost
  - Opportunity to focus on differentiating innovation
WHAT IS IT4IT?
What is IT4IT?

» IT4IT, an evolving 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 provides the capabilities for managing the business of IT which enable IT execution across the entire Value Chain in a better, faster, cheaper way with less risk

» IT4IT is industry independent and technology independent to solve the same problems for everyone

» IT4IT is designed for existing landscapes and accommodates future IT paradigms
THE IT4IT REFERENCE ARCHITECTURE IS ALIGNED WITH THE OPEN GROUP VISION

The Open Group’s “Boundary-less Information Flow” provides enormous IT Management and Operations data that can be used to apply many of the data science techniques on IT and to generate insights and foresights.
The IT Value Chain comprises four major IT value streams, which align to what IT traditionally calls “Plan, Build, Deliver, Run”.

The standard is also made up of a three-level functional reference architecture, and a set of supporting activities.
Value Stream one
Strategy to Portfolio [S2P]

Define your **strategy** to balance and broker your **portfolio**
Value Stream two
Requirement to Deploy [R2D]

Prioritize every requirement to build the best services and deploy them.
Value Stream three
Request to Fulfill [R2F]

Handle each request by streamlining the process to fulfill it.
Value Stream four
Detect to Correct [D2C]

Seek to detect issues and to correct them before they impact the user.
THE REFERENCE ARCHITECTURE

» At the centre of the Value Chain sits the Reference Architecture, underpinning and tying together the Value Streams.
First level of the IT4IT Reference Architecture

The purple circles represent a special designation of Data Object

Service Backbone Data Object

Functional Components

Key Data Objects

Key Data Objects are tied together with solid lines known as Relationships
The Service Model

» The Reference Architecture is itself characterized by the Service Model.

» The Service Model depicts the life cycle of a service as it moves through the Value Streams.

IT4IT identifies three life cycle phases during the journey through the Service Model.
Each IT Value Stream is centred on a key aspect of the service model, the essential data objects (information model), and functional components (functional model) that support it.
The Strategy to Portfolio (S2P) Value Stream

» Provides the strategy to balance and broker your portfolio.
» Provides a unified viewpoint across PMO, enterprise architecture, and service portfolio improves data quality for decision making.
» Provides KPIs and roadmaps to improve business communication.
The Requirement to Deploy (R2D) Value Stream

- Provides a framework for creating, modifying, or sourcing a service.
- Supports agile and traditional development methodologies.
- Enables visibility of the quality, utility, schedule, and cost of the services you deliver.
- Defines continuous integration and deployment control points.
The Request to Fulfill (R2F) Value Stream

- Helps your IT organization transition to a service broker model.
- Presents a single catalogue with items from multiple supplier catalogues.
- Efficiently manages subscriptions and total cost of service.
- Manages and measures fulfilments across multiple suppliers.
The Detect to Correct (D2C) Value Stream

- Brings together IT service operations to enhance results and efficiency.
- Enables end to end visibility using a shared configuration model.
- Identifies issues before they affect users.
- Reduces the mean time to repair.
Why big customers are in the game

"Like many other companies, Shell faces challenges around matching IT capabilities to core business needs, and reducing IT spend while delivering IT solutions faster," said Shell CIO Alan Matula.

New technologies such as cloud, IT consumerisation and big data are adding further complexity to Shell’s substantial IT infrastructure and its IT team is increasingly stretched to respond to rising demand and the need for greater agility.

At the Open Group conference, Hans van Kesteren, Shell’s vice-president and CIO for global functions, admitted the company has multiple end systems in place and faces huge integration challenges.

"Standards will help us to mature our industry," he said.
Value Chain, Reference Architecture

From “Why” to “What”

The IT4IT RA is all about the data! Embraces existing process and agile frameworks.

From “What” to “How”
(uses TOGAF®, specified in ArchiMate®)
DevOps – How to run and deliver IT continuously

**The Vision:** Create Integrated IT management capabilities across the entire service lifecycle

Traditional IT Value Chain

- Plan
- Build
- Deliver
- Run

**IT Value Chains**

- Strategy to Portfolio
- Requirement to Deploy
- Request to Fulfill
- Detect to Correct

Reference Architecture
IT4IT Release Train

IT Value Chain
  • Sept 2011

Reference Architecture ("RA") 0.5 (level 1)
  • August 2012

RA 1.0 (level 2)
  • January 2013

RA 2.0 (level 3)
  • October 2015

RA 1.3 (level 3)
  • October 2014

RA 1.2 (level 3)
  • March 2014

RA 2.x (level 3+)
  • Target: Q4 CY2016

Target: Q4 CY2016
HOW DOES IT4IT AFFECT ITIL, TOGAF, COBIT AND OTHER FRAMEWORKS AND GUIDELINES?
Relationship between TOGAF®, ArchiMate®, ITIL® and IT4IT™

- Reference Architecture for IT software ecosystem
- Best practice framework for IT process & taxonomy
- Well formed model language
- Industry standard architecture framework

IT4IT

ITIL

ArchiMate

TOGAF

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IT is one Portion of an Organization APQC PCF

APQC Process Classification Framework

With many concerns to address

- ITIL: Event Management, SD*
- COBIT: Incident Management, Technology Debt
- TOGAF: Build Management, Outsourcing
- Test Management: Design Management, More with less
- Strategic Planning: GRC, Multisourcing
- Project Management: Policy Management, Upgrades
- DevOps: Proposal Management, MTTR
- Development: SLA Management, Lifecycle Management
- Agile Development: Deployment, Financial Management
- Monitoring: Management, GRC
- Problem Management: Release Management, License Management
- Change Management: Cloud, SOX
- Configuration: Mobil, PCI
- Demand Management: Social, Datacenter
- Capacity Management: Financial Management, Consolidation
- Requirements: SaaS, Performance
- Management: PaaS, Management
- Diagnostics: IaaS
Positioning IT4IT™ in the ‘landscape’

- Computation independent
- Narrative
- Conceptual

- Platform independent
- Logical
- Key detail where necessary

- Syntactically precise
- Interoperable
- Exhaustive detail (e.g. all conceivable data attributes)
The IT4IT difference

» How is IT4IT different from many other frameworks, including TOGAF, ITIL, DevOps, Micro services, Bimodal IT, Lean IT, SIAM, Design Thinking etc.?

» More specifically, what’s the impact of IT4IT on ITIL which may be relegated to a subset or ignored as irrelevant in IT organisations?
The IT4IT difference (Cont’d)

» The framework helps organizations to look at IT as a set of interconnected “Value Streams”
  – and create a Service Backbone model,
  – an integration model,
  – a functional model
  – and a data model for IT Organisation.

» This could help practitioners to implement a set of IT Management tools to support the value chain.

» As a framework, it inherently covers or borrows from all the popular industry frameworks/standards, e.g., ITIL, COBIT, CMMI, TOGAF etc.,

» yet does not enforce practitioners to follow

» the traditional process thinking.
The IT4IT difference (Cont’d)

» IT4IT will enable IT Leaders to manage highly automated IT, whereas the process-driven IT Management approach doesn’t work that well in this space.

» When we automate IT, we try to implement tools (system of records or engagement) to perform predictable, monotonous activities and eventually create a layer on top of traditional IT.

» These tools can eventually be programmed to “make decisions” based on analytical insights from the data generated by them.

» The IT4IT Reference Architecture will help us implement and manage this automation layer and underlying IT.
The IT4IT difference (Cont’d)

» IT4IT allows you to run the IT function within an organisation as a production-based business in its own right.

» IT4IT does not replace anything, it complements and enhances your current structures.

» The important work done using models such as ITIL and COBIT offer you standards on a process level, but gives nothing prescriptive.

» They do not tell you how to manage your service models and lifecycles, or what kinds of systems to put in place.

» IT4IT is the natural next step.
Thank you for your attention