Any EA effort can only succeed when the target organisation’s culture and climate is consciously incorporated in the design, development, deployment, integration and management of the architecture effort.

Industry examples will be discussed in the context of a typical Architecture Practice, its methods and procedures and the changes that were required.

Presented by Peter Waugh
Introduction

- CIO’s tell us:
  - “Many major IT Initiatives and Investments are failing”
- CEO’s tell us:
  - “We must develop a technologically sophisticated enterprise strategy”
- Enterprise Architecture reaches a watershed:
  - 25% are maturing and active
  - 25% have failed repeatedly
  - 50% take 2 steps forward and 1 step back
- Many stakeholders ask:
  - Is EA part of the solution or part of the problem”?

The Challenge for us is to cross the corridors and venture into Business’s domain, where we have to deploy our Architectures.

Peter Waugh
Enterprise Architecture Practitioners’ Conference,
Johannesburg 4 – 6 June 08

Scope of the presentation

- **Introduction**
- **The Engagement model**
  - Organisational Culture, Climate & Leadership
  - Reference models
  - Architecture deliverables and method
- **Approach A: Transactional**
  - Strategic issues on EA
  - EA Practice management context
  - EA Practice implementation
- **Approach B: Transformational**
  - EA Delivery Framework
  - EA Practice management Framework
  - Delivery approach and management
- **Conclusion**
- **References**
Engagement Model: Burke-Litwin Causal Model of Organization Performance and Change

Leadership

Mission & Strategy

Organisational culture

Management Practices

Structure

Systems Policies & Procedures

Climate

Individual needs and values

Motivation

Task requirements, Individual skills

Feedback

EXTERNAL ENVIRONMENT

..... relatively enduring set of values and norms that underlie a social system.

..... psychological state strongly affected by organisational conditions, such as Systems, Structure and Managerial Behaviour

...... culture and climate are influenced by leadership behaviour......

Leadership: Full Range Model

Leadership across the Range is represented by...

- **Idealized Influence**
  - Setting the highest standards for moral and ethical conduct

- **Inspirational Motivation**
  - Articulating the future desired state and a plan to achieve it.

- **Intellectual Stimulation**
  - Questioning the status quo and continuously innovating, even at the peak of success.

- **Individualized Consideration**
  - Energizing people to develop and achieve their full potential/performance

- **Contingent Transaction**
  - Developing well-defined roles and expectations to achieve desired performance quality

- **Management by Exception (Active)**
  - Searching for what’s done wrong, not what’s done right

- **Management by Exception (Passive)**
  - Focusing on mistakes only after they have occurred and fixing problems

- **Laissez Faire**
  - Failing to develop, improve and perform at even satisfactory level

Enterprise Architecture Implements strategy where Organisational development (OD) ..... is the planned reinforcement of organisational strategies, processes and structures through the application of behavioural science knowledge. A strong emphasis is on group and interpersonal processes. (Huse and Cummings).

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Engagement model: Reference models are central

• A **reference architecture** provides a proven template solution for an architecture for a particular **domain**.

• It also provides a **common vocabulary** with which to discuss implementations, often with the aim to stress commonality.
  
  – **capture**, **classify** and **encapsulate** enterprise knowledge,
  
  – partially and completely **reused**
  
  – used to increase overall modelling **efficiencies**, however still requiring organization **specific adaptation**.

http://en.wikipedia.org/wiki/Reference_architecture
About the TeleManagement Forum

- TeleManagement Forum is an international consortium of communications service providers and their suppliers.
- Its mission is to help service providers and network operators **automate their business processes in a cost- and time-effective way.** The work of the TM Forum includes:
  - Establishing operational guidance on **business processes.**
  - Agreeing on **information** that needs to **flow** from one process activity to another.
  - Identifying a realistic **systems environment** to support the interconnection of operational support systems.
  - Enabling the development of a market and real products for **integrating and automating telecom operations processes.**
- The 600 members of the TM Forum include service providers, network operators and suppliers of equipment and software to the communications industry.
New Generation Operations Systems and Software (NGOSS)

- An industry set of **frameworks** driven and managed by the TMF for:
  - Business process modelling and automation
  - Standard information and data models
  - Systems Architecture definitions
  - Integration interfaces
  - Defined methodology for use.

**NGOSS Frameworks**

**New Generation OSS Initiative**

- **Business Process Framework**: (Enhanced Telecom Operations Map - eTOM)
- **Enterprise-wide Framework**: (Shared Information and Data Model – SID)
- **Applications Framework**: (Telecom Applications Map - TAM)
- **Systems Integration Framework**: (Technology Neutral Architecture – TNA)

**TMF Mission**

- Transforming the telecom business by creating standards for business processes, operations and software systems
- Reducing systems integration tax
- Radically improving efficiency, customer service and business agility.

Note: The Operations Support Systems (OSS) enable the support, administration and management of services. They include systems that manage the networking infrastructure, planning tools, billing systems, service assurance and management tools, service provisioning systems, trouble management tools, and the like.

[http://www.tmforum.org](http://www.tmforum.org)
Enhanced Telecom Operations Map® (eTOM)

Characteristics
- Structure, terminology, classification scheme
- Process foundation
- Basis for managing Portfolios of applications
- End-to-End process flows and re-use
- Views:
  - External
  - Engineering
  - Key Process areas
  - External interactions
The **Shared Information/Data (SID)** can be viewed as a companion model to the eTOM:
- provides an **information/data reference model** and
- a common information/data vocabulary from a business entity perspective.

- The model uses the concepts of domains and **aggregate business entities** (or sub-domains) to categorize business entities.

- This partitioning of the SID model also allows **distributed work teams** to build out the model definitions while minimizing the impacts across the model.
Shared Information and Data (SID) Framework

**Market / Sales**
- Market Strategy & Plan
- Marketing Campaign
- Contact/Lead/Prospect
- Market Segment
- Competitor
- Sales Statistic
- Sales Channel

**Product**
- Product
- Strategic Product Portfolio Plan
- Product Performance
- Product Specification
- Product Offering
- Product Usage Statistic

**Customer**
- Customer
- Customer Order
- Customer Problem
- Customer Interaction
- Customer Statistic
- Customer SLA
- Applied Customer Billing Rate
- Customer Bill Collection
- Customer Bill
- Customer Bill Inquiry

**Service**
- Service
- Service Applications
- Service Performance
- Service Strategy & Plan
- Service Specification
- Service Configuration
- Service Usage
- Service Trouble
- Service Test

**Resource**
- Resource
- Resource Topology
- Resource Performance
- Resource Strategy & Plan
- Resource Specification
- Resource Configuration
- Resource Usage
- Resource Trouble
- Resource Test

**Supplier / Partner**
- Supplier/Partner
- S/P Interaction
- S/P Order
- S/P Plan
- S/P Product
- S/P SLA
- S/P Performance
- S/P Problem
- S/P Statistic
- S/P Payment

**Enterprise**
- (Under Construction)

**Common Business**
- Party
- Business Interaction
- Location
- Policy
- Agreement
Utilise the Open Group Architecture Framework (TOGAF) as a framework with its detailed method (ADM) and a set of supporting tools for developing an enterprise architecture, consisting of


**Supporting views:**

**Business – Data – Applications – Technology**
An Organisation asked:

How will the Strategy and Enterprise Architecture organisation

- participate in
- develop, guide and direct
- manage and control

the Strategy and Architecture Development process to ensure that the Business Model, its support systems and business initiatives

- are aligned,
- enabled,
- optimised and
- supported

through suitable

- Strategy and Enterprise Architecture planning processes
- Domain strategies, directives, policies, standards and procedures
- Architecture development processes
- ERP, BSS and OSS capabilities and solutions mix
- Foundation components and
- Implementations and Organisational structures
to extract value from the IT/IS investments?
**EA Practice implementation approach**

- **Change management**
  - Bottom up approach with assumed responsibility
- **Qualified processes**
  - EA Planning
  - Architecture Delivery
  - Architecture Practice Management
- **Industry best practices as external validation**
  - Strategy development
  - Architectures Development
  - Practice Management to enable
  - Industry and domain reference frameworks
- **Active organising and implementation**
  - Applying business and domain logic
  - Competence development in context, guiding and mentoring
- **Role Allocation and Accountability**
  - Competencies and profile
- **Governance**
EA Practice deliverables

• **Industry standard method for Architecture Development:**
  – TOGAF ADM – aligned to the Solutioning Value Chain (SVC), applied in context while ensuring suitability for Scope and Direction.

• **Primary artefacts:**

• **Secondary artefacts:**
  – High level scope & requirements, Detailed scope & requirements.

• **Architectures:**

• **Reference Architectures:**
  – Telemanagement (TMF) frameworks for Process-, Data-, Integration and Technology, the TOGAF Technical Reference Model and Standards.
Management Approach

- **Organisation**
  - Organise in a matrix with functional domains, systems, foundation & common components.
  - Combine teams with dedicated focus for delivery with accountability.
  - Retain individual accountability per domain lead and per line management function.
  - Group in Trans-functional teams according to Architectural scope and direction (Scope, Mandate, Delivery schedule and Resources).

- **Work allocation**
  - Allocate work according to knowledge, skills, competencies, preference and development areas requirement.

- **Governance**
  - Ensure collective accountability across domains in Design Authority.
  - Specialist focus on Architecture content by Specialist Review council.
Another type of organisation

EXTERNAL ENVIRONMENT

Leadership

Mission & Strategy

Organisational culture

4 X I’s II, IM, IS, IC

Management

4 X I’s II, IM, IS, IC

Management

Structure

Under construction

Selected for the job

Task requirements, Individual skills & abilities

Climate

Motivation

Performance driven

Systems Policies & Procedures

Non existent

Self centered

Individual needs and values

Demanding and fast changing

Involved

Forming and Storming

4 X I’s II, IM, IS, IC

Ready for creation by Systems, Structure and Management

Selected for the job

Performance driven

High expectations

INDIVIDUAL / ORGANISATIONAL PERFORMANCE

Peter Waugh
Enterprise Architecture Practitioners’ Conference,
Johannesburg 4 – 6 June 08

Slide 19
Guerilla* Qualified Architecture delivery framework

• Business context
  – Market, Product, Technology and Industry imperatives
  – Delivery value chain
  – Domain validation vs. definition
  – Organisational establishment
  – Industry subject disciplines

• Engagement model
  – Industry context
  – Architecture deliverables and components
  – Engagement mechanisms
  – Increasing levels of detail
  – Communication and
  – Business alignment

* Guerrilla
  a member of an irregular armed force (Unconventional methods).
  Unconventional approach to Architecture – Gorilla (Big Brute) vs Guerrilla.
**Guerilla Solution delivery approach (Principles)**

**Business**
- Balance short-term requirements for delivery against long-term needs/wants.
- Develop a strong sourcing focus, use trusted partners, fast track procurement processes.
- Make outcome-based decisions with a competitive mindset.

**Architecture**
- Establish a flexible enterprise architecture, and where possible, let the solutions drive the architecture.
- Apply industry Reference Frameworks to fast track deployment.
- Use best-of-breed and "out-of-the-box" solutions first and build only as a last resort.¹
- Allow solutions to dictate process where possible.
- Leverage existing IT assets, standards and resources.
- Focus on foundation and common components to prepare for the next phases.

**IT/IS**
- Understand that domain dependencies will be critical, manage the milestones and align deliverables from a holistic perspective.

**Governance**
- Intra team, domain Architecture change management, integration and data biased.

¹ See COTS Architecture Approach – EPIC – next slide
COTS Architecture approach

Traditional Approach

- Requirements
- Architecture & Design
- Implementation

Required approach

- Stakeholder needs / business processes
- Simultaneous Definition and Tradeoffs
- Programmatic / Risk
- Market place

Architectures

Develop Vendor / domain solution definitions, focusing on domain functionality, integration, common components and cross-domain alignment.

4 spheres of Influence

Evolutionary Process for Integrating COTS-Based Systems (EPIC).
Guerilla Practice management context

• **Industry standard method for Architecture Development:**
  – Aligned to the Vendor delivery frameworks validated against TOGAF ADM.

• **Primary artefacts:**
  – Architectures documented and delivered as implemented in framework context and not as per SDLC.

• **Reference Architectures:**
  – Telemanagement (TMF) frameworks for Process-, Data-, Integration and Technology, the TOGAF Technical Reference Model and Standards. (See references and samples)
Guerilla Solution delivery approach

• **Organisation**
  – Loosely organised with focus on vendor delivery and cross domains alignment.
  – Combine vendor teams with dedicated focus for delivery with functional accountability.
  – Ensure collective accountability for alignment and integration outside mainstream.

• **Work allocation**
  – Allocate according to willingness to achieve and the challenge
  – Vendor accountability for allocated domain.

• **Governance**
  – Operational level programme alignment through interpersonal and team interaction.

• **Organisational development**
  – As business was established – Structure, roles, Methods and procedures and performance.

• **Continuous stakeholder communication.**
Conclusion

Pro’s
• Guaranteed delivery
• Quality artifacts
• Qualified processes

Con’s
• Time consuming
• Cumbersome
• Governance

Pro’s
• Quick deployment
• Fast decision-making

Con’s
• Solution alignment
• Integration tax
• Management intensive

EA Approach, design, methodology and implementation must be adapted to the Organisation’s culture and climate
Some pointers

- Architecture implement strategy.
- Understand the playing field, the teams and the game.
- Address architecture implementation from the start.
- Take the noise out of the picture through reference architectures.
- Adopt both transactional and transformational leadership styles.
- “Bunny Hugging” is also for Architects.
- Age and experience counts.
Questions?
About Jurumani

Jurumani Solutions is a product development and business strategy company in the communications space. We also design, build and support voice and data services to niche markets. We offer both consulting services and turnkey solutions, and are flexible around the method of engagement, often taking equity or profit participation in lieu of consulting fees.

We mainly engage with communications service providers, broadcasters and media players, and IT services companies. However, we’ve also worked in fields as diverse as financial services, automation and control systems, and security services. Jurumani is a black empowered company.

Jurumani Solutions was started in early 2006 by four telecommunications specialists, and have grown steadily from there. We are young, somewhat unconventional, and focussed on the things that matter. We get the job done and make the big picture work.

Jurumani employs a holistic approach based on insight and understanding of all aspects of the business — the alignment of people, systems, infrastructure, finances, processes, products, etc. is more important than the contribution of any one. And we firmly believe the design needs to be built outwards from the customer. We like to think our skills and expertise are worth something (nobody employed is short of a masters in engineering or science, but we’ve seen enough to know it doesn’t mean anything) but believe the way we think, interact and engage is worth more than the CV’s of our thinkers.

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Peter Waugh

Biography
He has formal business training (MBA), is a certified TOGAF IT Architect and has extensive experience in Business Consulting, Enterprise and IT Architecture, Organizational- and Change Management, Education, Training and Development (ETD), IT and Management systems implementation and Mergers and Acquisitions. He operated at executive and senior management levels in the Defense-, Mining-, Retail- and Telecommunications sectors.

He contributed to a book on Organisational Development and Transformation and participates in various industry forums. He brings an understanding of and appreciation for business or organizational needs, goals and objectives, and can assess the value of information technology in terms of the returns they generate and the opportunities they enable.

He has been contracting to local and international ICT providers for the past 8 years and is currently employed as a Lead Architect for a South African mobile operator.

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References