



Case Studies of Enterprise Architecture

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Who?

- Wayne Horkan
 - > Chief Technology Officer, UK and Ireland @ Sun Microsystems
 - > 17+ years in IT from programming, design, programme management, application, infrastructure and enterprise architecture, to technical leadership
 - > Fellow of the BCS & Chartered IT Professional
 - > Fellow of the Institute of Directors
 - > Senior Member of the Institute of Electronic and Electrical Engineers
 - > Member of the Confederation of British Industry (CBI) Innovation, Science and Technology working group
 - > Member of EURIM, PITCOM, and others responding to UK and EU Governmental policy
 - > Member of the Open Group's Architecture Forum

Sun Microsystems

- The Network is the Computer
- Significant contributors to the "Internet Age"
- From the web site:
 - > Sun Microsystems Inc., (NASDAQ: JAVA) develops the technologies that power the global marketplace. Guided by a singular vision -- "The Network is the Computer" -- Sun drives network participation through shared innovation, community development and open source leadership.
 - > Sun provides a diversity of software, systems, services, and microelectronics that power everything from consumer electronics, to developer tools and the world's most powerful datacenters. Our core brands include the Java technology platform, Solaris operating system, the MySQL database management system, StorageTek and the UltraSPARC processor.

Why people involve Sun

- Why customers involve Sun in their EA teams:
 - > Vendor Representation
 - > Decision Validation
 - > Trust in our track record in supplying to T500 firms
 - > Reliance on a Sun technical stack
 - > Specialised knowledge, experience or relationship

What is Enterprise Architecture ?

- “The explicit description and documentation of the current and desired relationships among business and management processes and information technology.”
 - > U.S. Government Definition of EA: Circular A-130
- “The fundamental organization of a system, embodied in its components, their relationships to each other and the environment, and the principles governing its design and evolution.”
 - > IEEE 1471-2000
- “The process of translating business vision and strategy into effective enterprise change by creating, communicating and improving the key principles and models that describe the enterprise's future state and enable its evolution.”
 - > Gartner, Publication # G00141795

A simpler definition of Enterprise Architecture

- Architecture is fundamentally composition
- Enterprise Architecture is about the composition of the Enterprise. It is concerned with gaining a contextual understanding of that Enterprise, its business processes and IT estate, so that it and its complexities, can be described, communicated, managed, and planned for."

Case Studies of Enterprise Architecture

- A large Utility company
- A large Government department
- A large Government organisation

A large Utility company

- When EA goes bad: “Ivory Tower Syndrome” in action
- £1.6B revenue company
- Problems with EA practise:
 - > Over Data Driven
 - > Not Inclusive
 - > Lack of clear objectives
 - > £80M spend – CANCELLED with 400 job losses
 - > Lack of Senior Sponsor / No Management Visibility

A large Government department – I

- EA & SOA: How EA helps implement Architecture
- £100's of Billions processed
- Legacy EA model
 - > based on Business Process modelling
 - > Lack of understanding of the IT / IS eco-system
- To deliver an SOA transformation roadmap
 - > Rapid delivery of a light weight, yet inclusive EA
 - > Interviewing & direct involvement across business units

A large Government department – II

- Combining SOA & EA allowed us to build SOA Transformation Roadmaps which showed us:
 - > Functionality Delivered / Not Delivered
 - > Cost to Implement / Savings
 - > Complexity to Implement / Simplicity
 - > Non Functional, but Strategic & Reusable Components

A large Government Organisation

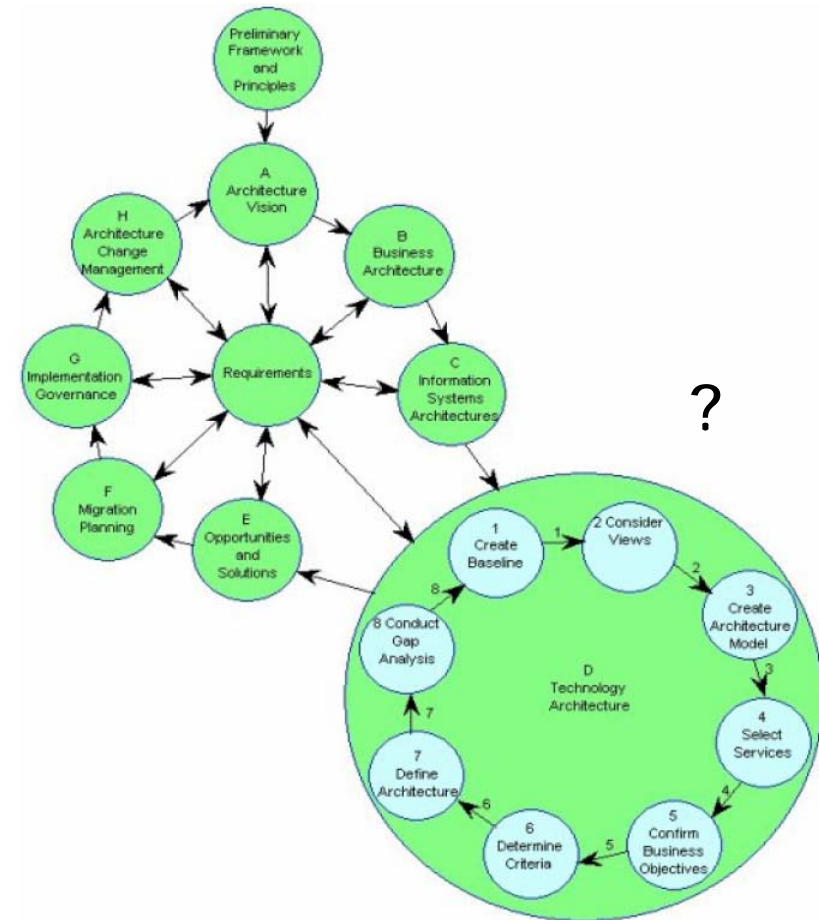
- “It’s about the People, Stupid !” – Governance Matters
- 100,000s of staff, across a distributed organisation
- Situation:
 - > Project in escalation
 - > Tempers running high
- Resolution:
 - > Review & Rebuild Governance Structure to map to Customers

Best Practices / Recommendations

Which framework to use ?

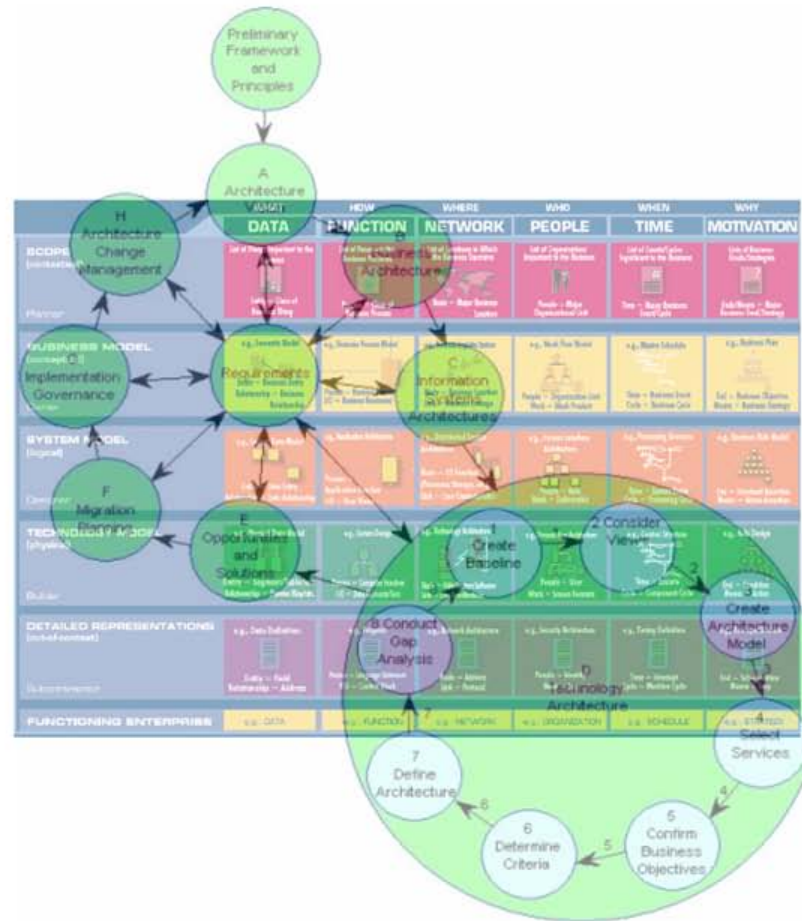
	WHAT	HOW	WHERE	WHO	WHEN	WHY
	DATA	FUNCTION	NETWORK	PEOPLE	TIME	MOTIVATION
SCOPE (contextual)	Lot of Things Important to the Business	Lot of Processes the Business Performs	Lot of Locations in Which the Business Operates	Lot of Organizations Important to the Business	Lot of Events/Cycles Important to the Business	Lot of Business Goals/Strategies
Planner	Entity - Class of Business Being	Process - Class of Business Process	Node - Major Business Location	People - Major Organizational Unit	Time - Major Business Event/Cycle	End/Means - Major Business Goal/Strategy
BUSINESS MODEL (conceptual)	e.g., Scenario Model	e.g., Business Process Model	e.g., Business Logistics System	e.g., Work Flow Model	e.g., Master Schedule	e.g., Business Plan
Owner	Entry - Business Entity Relationship - Business Relationship	Process - Business Process IO - Business Resource	Node - Business Location Link - Business Linkage	People - Organization Unit Work - Work Product	Time - Business Event Cycle - Business Cycle	End - Business Objective Means - Business Strategy
SYSTEM MODEL (logical)	e.g., Logical Data Model	e.g., Application Architecture	e.g., Distributed System Architecture	e.g., Process Interaction Architecture	e.g., Processing Sequence	e.g., Business Rule Model
Designer	Entity - Data Entity Relationship - Data Relationship	Process - Application Function IO - User Views	Node - [S] Function (Resource, Storage, etc.) Link - Data Characteristics	People - Role Work - Subordinate	Time - System Event Cycle - Processing Cycle	End - Structured Assertion Means - Area Location
TECHNOLOGY MODEL (physical)	e.g., Physical Data Model	e.g., System Design	e.g., Technology Architecture	e.g., Provision Architecture	e.g., Control Structure	e.g., Rule Design
Builder	Entry - Equipment/Module/etc. Relationship - Point-to-Point	Process - Computer Function IO - Data Element/Set	Node - Main/Server Software Link - Low Specifications	Work - Server Function	Time - Instance Cycle - Component Cycle	End - Condition Means - Action
DETAILED REPRESENTATIONS (out-of-context)	e.g., Data Definition	e.g., Program	e.g., Network Architecture	e.g., Security Architecture	e.g., Timing Definition	e.g., Rule Specification
Subcontractor	Entity - Field Relationship - Address	Process - Language Element IO - Control Block	Node - Address Link - Protocol	People - Manually Work - Job	Time - Instance Cycle - Routine Cycle	End - Sub-condition Means - Step
FUNCTIONING ENTERPRISE	e.g., DATA	e.g., FUNCTION	e.g., NETWORK	e.g., ORGANIZATION	e.g., SCHEDULE	e.g., STRATEGY

OR

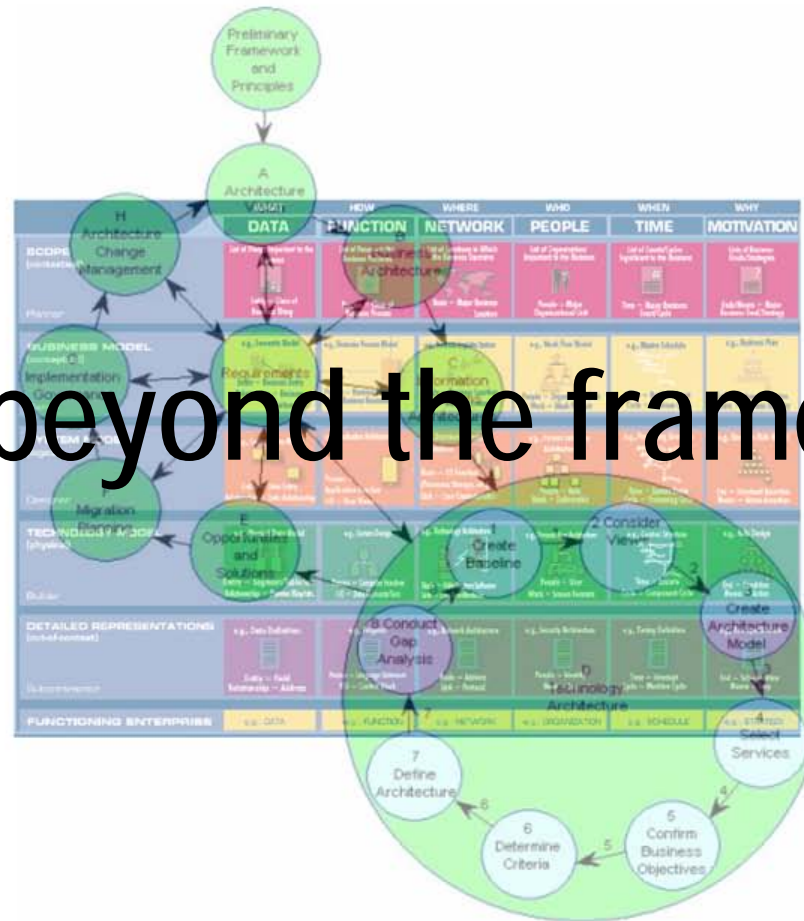


Religious arguments ?

Which framework to use ?



Which framework to use ?



look beyond the framework

Lack of Sponsor

- "... exasperated by the short term tenures of CIO's and CTO's, with the fixation on short term tactical gains in order to further careers. An attitude of 'why should I invest in long term strategic goals if I won't be around to benefit from them' prevails..."
- "There is a Quick turn around nowadays, if a sponsor goes, then the level of focus / importance drops." ... "where their EA practice focused advice on a technical governance structure for EA. The CIO left, focus then changed and the work was left on shelf."
- "...5 years ago the EA function" ... "had little relationship with the CIO office, which meant they were an appendage and had no function. Ultimately they ended up spending their time building widgets for the organisation. This comes from not having appropriate sponsorship."

Recommendations and Summary

- EA must be delivery focused
- Don't labour it
- Inclusive
- Rotation
- Get the right Technology skills mix
- Sponsorship, Sponsorship, Sponsorship
- Keep aligned to the Business Strategy board

Recommendations and Summary

- TA must be delivery focused
- Don't overburden it
- Inclusive
- Rotation
- Get the right Technology Skills mix
- Sponsorship, Sponsorship, Sponsorship
- Keep aligned to the Business Strategy, Board

Recommendations and Summary

- SA must be delivery focused
 - Don't
 - Inclusi
 - Rotatic
 - Get the
 - Spons
 - Keep
- **Be Rapid**
 - **Be Reiterative**
 - **Deliver Value Quickly**
- ...aligned to the business strategy, ...ard

Q & A

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