Enterprise Architecture & SOA in the Airline Industry

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Synopsis

"Making enterprise architecture relevant to business" remains an ultimate challenge of any architecture and technology team, irrespective of its size, age and other attributes. How can traditionally technology driven architecture be a differentiator or valued asset for a CIO in today’s dynamic, challenging economic and business environment?

In order to enhance its business relevance, the Enterprise Architecture Practice needs to scale up to meet business challenges, transform itself to deliver benefits and ROI in business terms of reference instead of traditional technology terms.

In this session, Amit will discuss some of the common EA roadblocks and strategies to negotiate with them.

- Why Business driven Enterprise Architecture?
- Drivers of the Enterprise Architecture: Business or Technology?
- Advantages of Business driven Enterprise Architecture
- Challenges in implementing Business driven Enterprise Architecture
- Classic Mousetrap : Technology driven architecture
- SOA without baseline? Where are my business processes?
Business driven Enterprise Architecture

- Illustrated Case Study - Business Scenario: Merger of two airlines

- Two approaches that IT group can take to enable business
  - Technology driven Integration – Conventional IT Approach
  - Business driven Integration – Enterprise Architecture Approach

- Analysis of two approaches
  - Issues with Conventional IT Approach
  - Benefits of Enterprise Architecture Approach

- Lessons Learnt
  - Know your business environment & stakeholder
  - Avoid common IT Mouse Traps
  - Don’t reinvent the wheel – Use Industry Framework
  - Fine tune Industry Framework to suit your business

- Conclusion & QA

This session does not contain any technical models
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Merger of two airlines – Business Scenario

- Belgian airline “Air Brussels” is a modern low cost carrier
- Swedish airline “Air Stockholm” is a traditional regional carrier
- With the background of downturn in the Industry, both the airlines have suffered loss of revenue and market share to respective competitors in recent years.
- Both the airlines have slashed their budgets, made redundancies, cut unprofitable routes in recent months. However, both remain in red.
- Hence as a last attempt of survival, both of them have decided to merge and form a joint European low cost carrier.
- With their complementary network, diverse transport hubs and different market focus, this seems to be an ideal marriage!
Merger of two airlines - Challenges

However, for their merger to go smoothly they will need to overcome various challenges such as:
- European Union Competition Council
- Approval from strong employee unions at both airlines
- Integration of modern Brussels systems with legacy Stockholm systems

Eventually the merged entity will need to deliver Strategy:
- Low Operating Costs
- Optimised resources and assets
- Increased Revenue
- Seamless travel experience for loyal customers
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Technology driven Integration Approach

- Treat each system as a “black box” of business functionality
- Focus on technical interfaces
- Focus on Legacy Transformation
- Focus on messaging between applications

No dependency and visibility of the underlying business processes
Business Driven Integration Approach

Focus on the “end-state” real life business processes that require automation

- Identify common business components
- Derive common technical components / Services
- Clean separation of business design and technical implementation
- Technical Integration may be still be necessary

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<tr>
<th>Business Process Focus</th>
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EA & SOA for Airline Industry – Amit Apte

Business driven Enterprise Architecture

Illustrated Case Study - Business Scenario: Merger of two airlines

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Conclusion & QA
## Technology driven Approach - Issues

### Issues

- Too much focus on technology, tools, methods
- Placing priority on technology rather than business process aspects
- Looking only at immediate transaction but ignoring overall business process

### Result - Business Strategy & Implementation Gap

- Seamless Travel Experience for Loyal Customers
- Optimised Resources

### Implementation

- Modern Web Check In App
- Legacy Check In App
- Modern Kiosk App
- Technical Integration Based on EAI / ESB Platform
Business driven Approach - Benefits

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<th>Benefits</th>
<th>Implementation</th>
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<tr>
<td>Focussing on business processes rather than technology, tools, methods.</td>
<td>Simple Business Process</td>
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<td>Defining technology components driven by business process components.</td>
<td>Customer needing to check-in for flight</td>
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<td>Considering complete business transactions</td>
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Know your Business Environment

Core Functions
- Operations
- Product Mgmt
- Sales
- Marketing

Support Functions
- Legal
- Finance
- HR
- IT

External Stakeholders
- Clients
- Partners
- Suppliers
- Government

Internal Stakeholders
- Raw Material, Resources, Purchase Orders, Regulations, Laws, etc

Finished Products, Invoices, Compliance, Financial Results etc
Avoid Common IT Mouse Traps

Client Business Processes
- Clients
- Partners
- Suppliers
- Government

Raw Material, Resources, Purchase Orders, Regulations, Laws, etc

Finished Products, Invoices, Compliance, Financial Results etc

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Tools, Frameworks, Methods, Technology

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Don’t Re-invent the Wheel, Fine-Tune it!

Use industry best practices, frameworks, methods and tools

Framework such as TOGAF is business relevant and practical

Flexible enough for fine-tuning
Fine tune Framework to suit your Business

Map Strategy Onto Enterprise & Business Solution Models

Map Business Solution Models Onto Product Design (Business Process Models)

Map Product Design onto Technical Integration Design

Business driven Product Development & Implementation
Conclusion

- You really don’t care what equipments are fitted in your favourite restaurant’s kitchen (unless you are a cook!)

- Don’t tell business that you are implementing TOGAF

- Fine tune TOGAF for your purpose but don’t reinvent the wheel

- Focus on delivering business value and making IT relevant to business
Thank You

- QA Session