Module 3

Architecting & Transformation

- Appreciate Various architecting transformation with the business to map the planned organizational strategy, processes and governance
- Perceive How operational needs get simplified with this approach
Integrated Collaborative Environment Business Centricity.

Business Drivers

Are Used To

Prioritize Business Areas

Are Analyzed By

Enterprise Planning Groups

Back
Business transformation is about making fundamental changes in how business is conducted in order to help cope with a shift in market environment.[1]

It may be caused by external changes in the market such as an organization's products or services being out of date, funding or income streams being changed, new regulations coming into force or market competition becoming more intense. This management approach is widely used:[2]

- to increase revenue or market share
- to improve customer satisfaction
- to cut costs
Enterprise Architects in Transformation initiative where it brings Value and DRIVES

Process-Centric
Service-Oriented
Capability-Driven

Vision
Enterprise Aspiration

Best-In-Class Customer Experience

Goal

Strategy

Roadmap

Transformation Program
- Capability Definition & Scope Management
- Capability Catalogue Management
- Capability Build Management
- Capability Maturity Management
- Capability Reuse Management
- Capability Governance

Transformation Program
- Capability Definition & Scope Management
- Capability Catalogue Management
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- Capability Maturity Management
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- Capability Governance

To achieve Best-In-Class Consistent Customer Experience by,
- Monitoring cycle-time and right-first-time for everything we do in
- our 3 e2e customer-facing business processes harmonized;
- across 3 line-of-business and a host of product/service portfolios,
- using 160+ business capabilities realized
- on 15 underlying Matrix Platforms (11 functional / 4 infrastructure)
- while, rationalizing applications & systems from 3000 to < 300

One-IT
- New customer paradigm – self service, zero touch, real time
- New business model - collaborative business
- Convergence – communications and computing (IP-based)
- Compliance – statutory obligation and governance
- Optimization – application rationalization and technology homogenization
Alignment to business is critical aspect of “envision”
‘Business-IT Alignment’ has multiple perspectives

• There are 4 dimensional perspectives for assessing Business-IT Alignment
  – Business Strategy as a driver
    • Strategy Execution (1 – 2 – 4)
    • IT Transformation (1 – 3 – 4)
  – IT Strategy as an Enabler
    • Competitive Potential (3 – 1 – 2)
    • Service Level (3 – 4 – 2)
• Each of the above perspective requires different role play of management team
• All perspectives are important to consider while defining IT Strategy and managing it.

Source: Strategic Alignment Leveraging IT for Transforming organizations – Henderson and Venkatraman, 1992
A Transformation Model
A Health Check for Business Transformation

Frozen in the Past
- Operational & IT spending increases
- Limited access to information
- Little flexibility
- No IT agility
- IT delivers little business values

In the Abyss
- Uncontrollable operational & IT spending
- IT as Huge Cost Center
- IT in the Fire-Fighting Modes

Competitive
- IT Spending under control
- IT Supports business operation
- Effective new development
- IT Architecture blueprint in place
- IT Governance in place

Leading
- Business & IT Integration
- IT Architecture Framework in place
- IT Architecture Organization (ITAO) in place
- IT delivers Strategic Business values
- IT as Profit Center
Transformation Workshop - Define

Identify the scenario for architecting transformation

1. Is it Business Strategy Driven or IT Strategy Driven, Choose the Dimensional Perceptive

2. Define the state of the Organization considering the Health Check (Hypothetical)

- In a Bank - The context is regional expansion for a local bank in the area of retail banking

- In an Automotive – The context as stated in the governance committee are productivity of the assembly plants is inefficient due to supply chain issues

- In a Hi Tech Industry – They are starting in a new market with a JV with a local business group. They have already established in other geography, not similar to this market. Volume is very heavy and local prices must be low.
Enterprise Architecture is about aligning IT with business strategy than detailed solution design

### Architecture Capability Continuum

<table>
<thead>
<tr>
<th>Description</th>
<th>Decision Level</th>
<th>Example Principles</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enterprise Architecture</strong></td>
<td>Architecture operates across the entire organisation (i.e. multiple lines of business) and is aligned to the corporate strategy and outcomes</td>
<td>Typical decisions include definition and prioritisation of capabilities and applications to meet end state requirements</td>
</tr>
<tr>
<td><strong>Domain Architecture</strong></td>
<td>Architecture relevant to specific business unit(s) or operating models within an organisation Also referred to as segment architecture and is aligned to business strategy &amp; outcomes</td>
<td>Typical decisions include clarifying business processes to be undertaken and the resultant requirements</td>
</tr>
<tr>
<td><strong>Solution Architecture</strong></td>
<td>Architecture supports detailed design and technology implementation relevant to support specific projects or capability outcomes</td>
<td>Typical decisions include types of products, information flows and overall timing of solution</td>
</tr>
</tbody>
</table>
There is evidence of a strong link between organisational performance and architecture maturity.

**Architecture Maturity**

*MIT research shows a relationship between high performing companies and a mature Enterprise Architecture practice*

**Discussion**

- Research has shown that as companies become more high performing as their architecture matures towards Business Modularity.

- Global EA maturity study showed that over 60% of surveyed organizations with mature EA realized value through decreased cost, minimized risk, decreased complexity and increased agility.

<table>
<thead>
<tr>
<th>Key Characteristics</th>
<th>Local and functional optimisation</th>
<th>IT efficiency</th>
<th>Operational efficiency</th>
<th>High Performance Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT Investment practices</td>
<td>Invest heavily into local applications addressing local business needs</td>
<td>Invest into shared infrastructure services</td>
<td>Selectively invest into shared data and standardised business processes</td>
<td>Focus on reusable application and process components for a modular operating model</td>
</tr>
</tbody>
</table>
FIVE Action Steps to Achieve Successful Office Transformation Program

1) **Integrate Business and IT together**
   - IT as part of the Business and IT is the Business
   - 50%-50% equal shares on every technology initiatives

2) **Establish Common Stakeholders Communication Platform** between Business and IT teams
   - Requirements that cannot be described and documented then it cannot be implemented by IT
   - Map the requirements to strategic approach at Business Imperative levels (Domain and Process Model) through Matrix
   - Faster time to market for new innovations and capabilities
3) Provide **End-to-End Full traceability** from Business Requirement to Design to Implementation and Vice Versa (Solution Architecture Support)
FIVE Action Steps to Achieve Successful Office Transformation Program Concepts

4) Embrace Practice Methods such as IASA ITABoK (IT Architecture Body of Knowledge) skill sets to continue delivering Business Values of Technology.

- Think Technology, but Write & Speak Business (More importantly, Translate Business!)

- All IT projects must deliver business values/ROI.

- All IT activities need to align with business Metrics.

- Applying the art and science in designing and delivering valuable technology strategy for the business.
FIVE Action Steps to Achieve Successful Office Transformation Program Contd…

5) Adopt the **Enterprise Architecture Framework** for successful journey of Office Transformation program

- Use IASA Guidance for Information and Business Model
- Learn Proven Practical Meta Phrase
- Critical to business survival and success through IT Agility to evolve in dynamic business environment
- To help PMO in delivering more successful IT projects
- Faster development and realization of business capabilities for enterprise growth
- Reduce and protect Risks for future IT investment

**Enterprise Architecture is adopting and applying Agile Centricity**
FIVE Action Steps to Achieve Successful Office Transformation Program Contd…

5) Adopt the Enterprise Architecture Framework for successful journey of Office Transformation program

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- Learn Proven Practical Meta Phrases
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Enterprise Architecture is adopting and applying Agile Centricity
End of Module 3
Questions, Discussions
Module 4

Architecting Transformation

- **Awareness**: Comprehend that important essentialities for future alignment of IT to Business and vice versa is in – Enterprise Architecture Practice – involving both Business and IT brains
- **Introspection**: How can you improve the skills to be successful in implementing AFTER understanding the BUSINESS Value
- **Appreciate**: Comparative advantages of Enterprise Architecture and various Frameworks, in successfully delivering technology values
Achieving Enterprise Agility through Enterprise Architecture Adoption

“Agility" is the ability of an organization to sense environmental change, and respond efficiently and effectively to that change.”

Analyst Quote
## Enterprise Architecture v/s Solution Architecture

Two **distinct** professions, roles, careers, competencies

<table>
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<tr>
<th>Strategic Considerations</th>
<th>Enterprise Architecture</th>
<th>Solution Architecture</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Links vision and mission of each business unit to an enterprise-wide view</td>
<td>Considers EA strategy and target state to undertake detailed design of programme architectures</td>
</tr>
<tr>
<td></td>
<td>Aligns technology and information management with organisational goals and strategies</td>
<td></td>
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</tbody>
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<table>
<thead>
<tr>
<th>Principles</th>
<th>Enterprise Architecture</th>
<th>Solution Architecture</th>
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<tr>
<td></td>
<td>Considers enterprise wide principles (incl. design principles) e.g. customer first, technology reuse, smart standardisation, accountability, green IT etc.</td>
<td>Leverages EA principles and guidance for programme level architecture</td>
</tr>
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<table>
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<tr>
<th>Views</th>
<th>Enterprise Architecture</th>
<th>Solution Architecture</th>
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<td></td>
<td>Develops architectural views including Business Architecture, Application Architecture and Domain Architectures that are aligned with the long term vision of the bank</td>
<td>Aligns programmes based on EA views to ensure capability gaps are filled and solution architectures are aligned to the long term EA vision</td>
</tr>
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<table>
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<th>Governance</th>
<th>Enterprise Architecture</th>
<th>Solution Architecture</th>
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<td></td>
<td>Develops high level roles and responsibilities and KPIs across each architecture</td>
<td>Leverages EA design governance to develop specific role descriptions, KPIs for each person involved in each project</td>
</tr>
<tr>
<td></td>
<td>Develop shortlists of approved vendors and guidelines for RFPs</td>
<td>Leverages relationships and expertise on vendors for the purposes of RFP execution</td>
</tr>
</tbody>
</table>
# Themes of architecture

## Subjective Themes
- Web 2.0
- BPM & SOA
- Business, IT Transformations
- Data and Information with Intelligence
- Collaboration
- Architecture Design Patterns

## Meta Themes
- Solutions
- Technology Platforms
- Process Leadership

## Value Themes
- Business Centricity
- Strategy
- Customer Centricity
- Innovation
- Performance
- Process Intelligence
- Optimization
- Governance
- Measurements
- Portfolio Management

## CONTEXTS
- CRM
- SCM
- INTEGRATION
- Multi-channel User Experience
- LEGACY MODERNIZATION
- RATIONALIZATION & CLOUD COMPUTING
- Big Data, BI, DWH

- Big Data, BI, DWH
IT Strategy Themes

Reduce costs
- Standardize processes
- Enhance productivity
- Improve workflow and communication
- Sustain repeatable service levels
- Improve risk control mechanisms
- Implement new business strategies
- Facilitate organic and acquisition driven growth
- Gain competitive advantage by exploiting new technology
Three Dimension Paradigm

1. Technology Focus (Domain, Imperatives) – Product or Technical Architecture

2. Business Focus (Domain, Imperatives) – Solutions Architecture

3. Transformational Focus (Process and Governance + Practice) – Enterprise Architecture
1. Technology Focus (Domain, Imperatives) – Product or Technical Architecture
2. Business Focus (Domain, Imperatives) – Solutions Architecture
3. Transformational Focus (Process and Governance + Practice) – Enterprise Architecture

Three Dimension Paradigm
Theme Workshop - Define
Identify the Themes and Framework for architecting transformation

1. Is the work – Solution or Enterprise Architecting. Which 5 Action steps are most relevant and WHY

2. What will be the Themes of Architecture – Subjective, Meta and Value and Choice of Architecture Framework for the Transformation and WHY.

- In a Bank - The issue is regional expansion for a local bank in the area of retail banking
- In an Automotive – The context as stated in the governance committee are productivity of the assembly plants is inefficient due to supply chain issues
- In a Hi Tech Industry – They are starting in a new market with a JV with a local business group. They have already established in other geography, not similar to this market. Volume is very heavy and local prices must be low.
**EA generates 8 outputs including strategic considerations, design principles and architectural views**

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<tr>
<th>Output</th>
<th>Enterprise Architecture Outputs</th>
<th>Description</th>
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<tbody>
<tr>
<td>Strategic Considerations</td>
<td>Outlines and details a consistent view of the strategic considerations from each business unit within the organisation</td>
<td></td>
</tr>
<tr>
<td>Design Principles</td>
<td>Provides guidance in decision making and acceptable trade-offs when defining the Target State Architecture</td>
<td></td>
</tr>
<tr>
<td>Standards</td>
<td>Formulates and applies enterprise-wide IT standards and processes</td>
<td></td>
</tr>
<tr>
<td>Current Business Model</td>
<td>Baselines the client business model and IT infrastructure to identify and prioritise opportunities for improvement</td>
<td></td>
</tr>
<tr>
<td>Architectural Views</td>
<td>Identifies the levels, layers, and linkages that identify and help enable capabilities within the business and describe how IT supports client business and performance objectives (the views can be current or future state)</td>
<td></td>
</tr>
<tr>
<td>Scenarios</td>
<td>Depicts a potential future state customer situation to illustrate the capabilities required and help identify the current limitations that hinder it</td>
<td></td>
</tr>
<tr>
<td>Blueprint</td>
<td>Provides a clear link to the development of future IT systems, investment planning and portfolio management</td>
<td></td>
</tr>
<tr>
<td>Roadmap</td>
<td>Describes the implementation plan to achieve the target state architecture</td>
<td></td>
</tr>
<tr>
<td>Governance</td>
<td>Identifies design guidelines and patterns to ensure IT operates in the most efficient manner to achieve the future state architecture</td>
<td></td>
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“Why Enterprise Architecture”

IT Project Failures are Norm in our Industry?

60%-70%

The rate of IT projects failed in some way (by Analyst Report)

66%

The rate of miscommunication between business and IT that caused IT projects failure, costing U.S. businesses at least $30 billion every year. (by Analyst Report)
End of Module 4
Questions, Discussions
Module 5

Strategy Uncovered with Measurement of Value Key to Succeed?

✓ Understand Architecture Continuum, How to Make a Business Case for EA with Value and Maturity Model
✓ Go back To Industry and Make IT Simple!
Architectural continuum can be filled…

Needs of the business shape non-architectural aspects of business operation

- **TOGAF Capability Framework**
  - Sets targets, KPIs, plans, and budgets for architecture roles
  - Business Capability drives the need for Architecture Capability Maturity
  - The Architecture Capability operates a method

- **Architecture Development Method (Part II)**
  - Business need feeds into the method, identifying problems to be addressed
  - The method refines understanding of business need
  - The method produces content to be stored in the Repository, classified according to the Enterprise Continuum

- **ADM Guidelines and Techniques (Part III)**
  - The method delivers new business solutions

- **Architecture Content Framework (Part IV)**
  - The Enterprise Continuum and Repository inform the business of current state

- **Enterprise Continuum and Tools (Part V)**
  - Operational changes update the Enterprise Continuum and Repository

- **TOGAF Reference Models (Part VI)**
  - Learning from the business operation creates new business need

**Business Vision and Drivers**

**Business Capabilities**
How to sell EA initiative to Stakeholders?

- What are the expectations for the EA initiative?
- Do you have case studies on cost/time and value?
- How long have you been working on a Business Case?
- Is this a once-off focus?
- Do you want to prove value continuously?
- How are you going to prove value?
- Chances are your business case will fail…

- In all initiatives in changes be it business or technologies
- Profitability in business must be paramount in enabling means to achieve them
Case for Value Model

- Create a Value Model
- Agree future/funding of EA based on value creation
- Deliver value in short iterative “projects”
Components of a Value Model

- Scope and Vision of Enterprise Architecture initiative.
  - understand your maturity
  - understand what you can do by when

- Benefit and value models
  - understand and linking EA initiatives to organizational value drivers

- An initiative for value creation.
  - understand what value you can deliver and by when

- Communication model
  - understand who to sell to and how

- Measurement model
  - ensure that your EA initiatives can be measured and tracked

- Total cost of ownership model
  - define the cost of each architecture building block
Characteristics of the Value Model

- Model needs to mature over time – living document
- Model needs to grow over time
- It is NOT a template
- Need to show growth in maturity of the EA initiative
- Need to support ADM iterative approach
Potential models supporting the Value Model

- **Scope and Vision of Enterprise Architecture initiative**
  - EA maturity model

- **An initiative for value creation.**
  - Strategic Apportionment and Improvement Model

- **Communication model**
  - Change Management Model

- **Measurement model**
  - Balanced Scorecard
The maturity model can help with identifying the Value of Enterprise Architecture

Isolation Quadrant - Fully convinced right up to senior levels, of the importance of architecture. Architecture clearly related to business goals. Architecture practices are however, insufficiently embedded within the organization’s processes of changed.

Enabling Quadrant - integrated the architecture to demonstrate a high level of architectural thinking. Organizations free to work on continued improvement and renewal.

Losing Quadrant - have taken architectural measures but in a fragmented manner and not on the basis of a shared organization-wide vision.

Losing quadrant - Architectural practices do not have any real effect on the business.

Low

High

Level of Architectural Thinking

Low

High

Integration in the Organization

Isolated

Optimizing

Losing

Fragmented
Change Management Model for managing change and collaboration (ICE)

The Value Comes In When Architects Deliver Based On Concerns Communicated Via the correct Change Colour Channel
Create Value Workshop - Define

Identify the Value for architecting transformation

1. Use the Excel Template shared

2. Identify and Quantify in a Hypothetical scenario the ROI based on standards and approach by EA

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Measure value based on the Balanced Scorecard
Innovation at System Level

Define the Differentiating Factors

Codify Systems of Record

IT Cost and Business Value Realignment – Via Application Portfolio Management and EA Tools
End of Module 5
Questions, Discussions
Summary and Let's start working.....
Business and Its Strategy – Cutting Edge Paradigm
Defining Strategy and Imperatives

Agile Customer Experience (ACE) based on Value to Life Style

Financial / Material / Service Supply Chain Originations

INTERNAL CONTROLS

Product Utilization, Leverage Levels (PULL)

EXTERNAL CONTROLS

Business Focused Product, Services from Enterprise

Governance and Practices (GAP)

Economic Market Demand

Supply And Demand (S&D) mismap

Customer

Products
Business Model → WHAT

Operating Model → HOW

Constitutes the business architecture and consists of the following models:

- Process model
- Decision model
- Structure model
- Performance model
- Governance model

Each business model type has a corresponding operating model type
Alignment to business is critical aspect of “envision”
‘Business-IT Alignment’ has multiple perspectives

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Source: Strategic Alignment Leveraging IT for Transforming organizations – Henderson and Venkatraman, 1992
Business and Its Strategy – Cutting Edge Paradigm

Business with Cutting edge

- Must Have – An Approach and Methodology for Business Strategy Modeling, helping in Agile Business and Agile IT.
  - Value thru Strategic Planning?

- Improve the Supply & Demand Alignment (SAD) with improved Product Utilization, Leverage Levels (PULL) in market and meet Agile Customer Experience (ACE)
  - Qualitative Domain modeling?

- Technology Strategy (IT inclusive and NOT conclusive!) to enable the consumer meet the product, with Governance and Process Model (GAP).
  - Logical Process Modeling?

- Operational Strategy for Support, Sustain and Succeed (ICE) with agile Technology enablement?
  - Adopt Enterprise Architecture?
Architectural continuum can be filled…

Business Vision and Drivers

TOGAF Enterprise Continuum and Tools

TOGAF Reference Models (Part VI)

Enterprise Continuum and Tools (Part V)

TOGAF ADM & Content Framework

Architecture Content Framework (Part IV)

ADM Guidelines and Techniques (Part III)

Architecture Development Method (Part II)

Business need feeds into the method, identifying problems to be addressed

The method refines understanding of business need

The method produces content to be stored in the Repository, classified according to the Enterprise Continuum

The Enterprise Continuum and Repository inform the business of current state

Operational changes update the Enterprise Continuum and Repository

Learning from the business operation creates new business need

The Architecture Capability operates a method

The Architecture Capability drives the need for Architecture Capability Maturity

The Architecture Capability Framework (Part VII)

Sets targets, KPIs, plans, and budgets for architecture roles

Effective operation of the Architecture Capability ensures realization of the Business Vision

Business need feeds into the TOGAF Capability Framework

Informs the size, structure, and culture of the capability

Needs of the business shape non-architectural aspects of business operation
Case Study for Module 5

HI Tech Industry
Module 6
Essentials of Enterprise Architecture Tools

Understand the need and necessity for an EA Tool

IASA Global - India Chapter Webinar by Vinu Jade
Information Systems Strategy Advisor
With Acknowledgement to Mr. Reed Taneja
MEGA – APAC &
Gartner 2014 Assessment of Tools for EA
Thank You!

Contact me at vjade@iasahome.org
Skype: vinu.jade
Mobile +919449825324