Module 2 : Preliminary Phase of ADM

How to Proceed :

A. Part 1 : First read the immediate portion, which is a Summary portion : Part 1 is for reading right now

This portion is important for

1. Understanding TOGAF for practical purposes – Supplement class session understanding with this
2. For Certification purposes, Level 1 and Level 2

B. Part 2 : Go through and workout the exercises in the Part 2 : Module2Questions&Answers. Very helpful for Certification preparation

C. Part 3 : Later when you find more time, do go through portion which says Part 3 : Detailed Courseware. That portion is useful for getting extra grades in Certification and for more proper understanding of TOGAF. Some sections of it are quoted from internet sources and from good authors as discovered by our Participants in earlier courses.

For a more deeper understanding, Refer to Case Study file :

CompCaseStudyStart

Detailed portions under : TOGAF recommended Template format may be generally understood and skipped till you get to practice TOGAF in your job. Those practicing TOGAF in their Enterprise may like to tailor TOGAF documentation along with the Templates.

Part 1 : Summary portion

You may like to first read this Quick Look : Glossary and Acronym

Preliminary Phase : It is Preliminary to all EA projects taken for a Long-Term initiative. So it is the primary work of EA Project, not any one portfolio of projects

EA project : Nothing but the EA Theme of Long-Term Strategy; Not any one specific software project

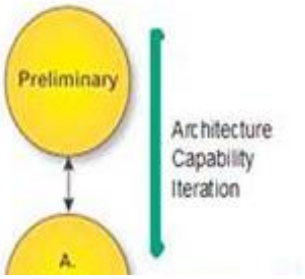
Enterprise Organizations Impacted : Here, Organization may mean a department or unit, in TOGAF parlance; other names being department, functional groups or communities

Request for Architecture Work : A definitive document related to Preliminary Phase. Study who prepares and who issues it.

Narratives for each Phase : See TOGAF Standard documentation online. It is about the following for each Phase like B, C, D etc.,

Enterprise (wide) Project

warranted ?



EA Project is the name given to Long Term initiative, not really to a project that we normally perceive

EA Project is based on

Pain Points or Futuristic Outlook of Modernization

Long term, Strategic Initiative - EA Project

Strategic Goals : Go through EA Project

Project is Enterprise wide (as an EA Project)

In a Nutshell :

EA Project : Not a 'Project', but a Super Project

A Project about 'Projects' in the **Long Term (say 3 to 5 years)**

Requires what to take it forward ?

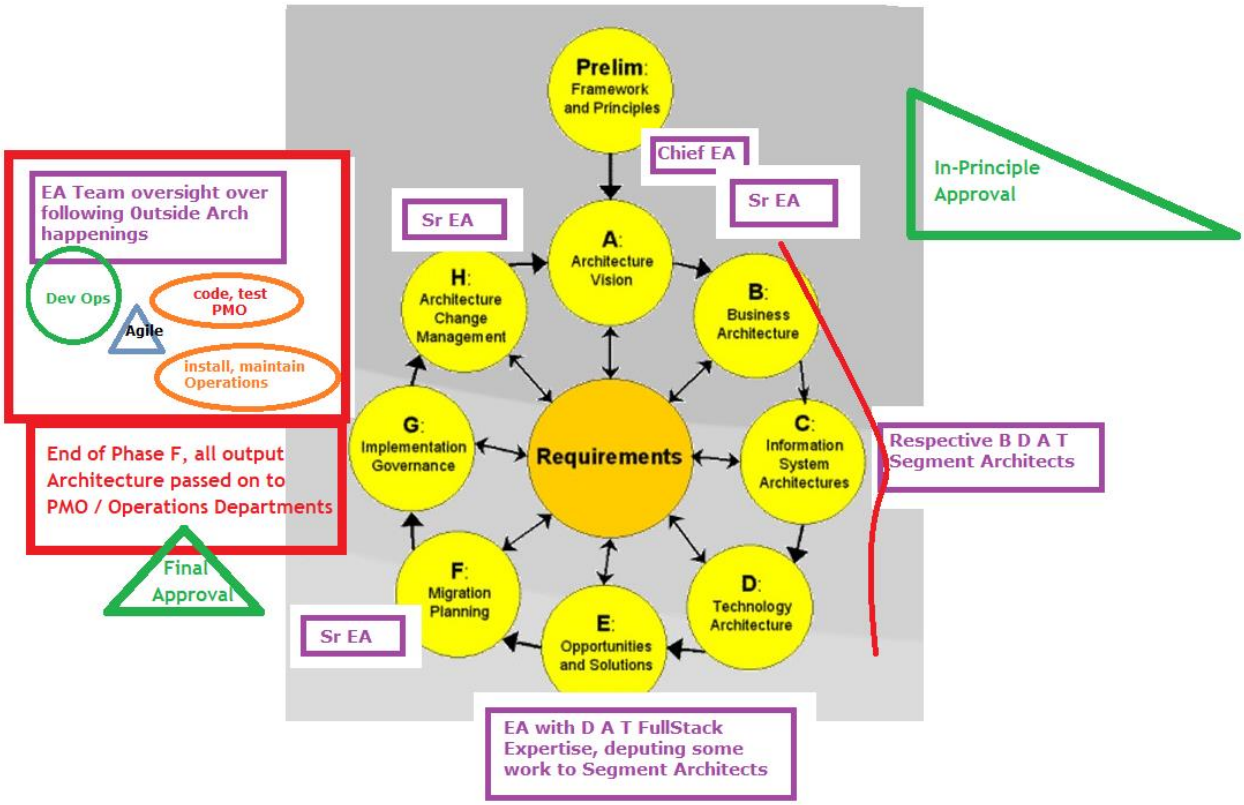
ADM – Architectural Development Method

What is the Business – IT alignment expected here ?

Balance between IT efficiency and Business Innovation

This, in turn needs :

Artifacts – representing Architectural Assets, in a Repository


Prelim:
Framework and Principles
Chief EA
Sr EA
In-Principle Approval
Sr EA
A:
Architecture Vision
H:
Architecture Change Management
B:
Business Architecture
EA Team oversight over following Outside Arch happenings
Dev Ops
code, test PMO
Agile
install, maintain Operations
G:
Implementation Governance
Requirements
C:
Information System Architectures
Respective B D A T Segment Architects
End of Phase F, all output Architecture passed on to PMO / Operations Departments
Final Approval
F:
Migration Planning
D:
Technology Architecture
E:
Opportunities and Solutions
Sr EA
EA with D A T FullStack Expertise, deputing some work to Segment Architects

Preliminary Phase: Objectives

- **Determine the Architecture Capability** desired
- Review the **organizational context** for conducting EA
- Identify and scope **the elements** of the enterprise organizations affected by the Architecture Capability
- Identify the **established frameworks**, methods, and processes that intersect with the Architecture Capability
- Establish a **Capability Maturity** target

EA Project = 'the EA Theme of Long Term Strategy'

Preliminary Phase is about defining "**where, what, why, who, and how we do architecture**" in the enterprise

THE Open GROUP

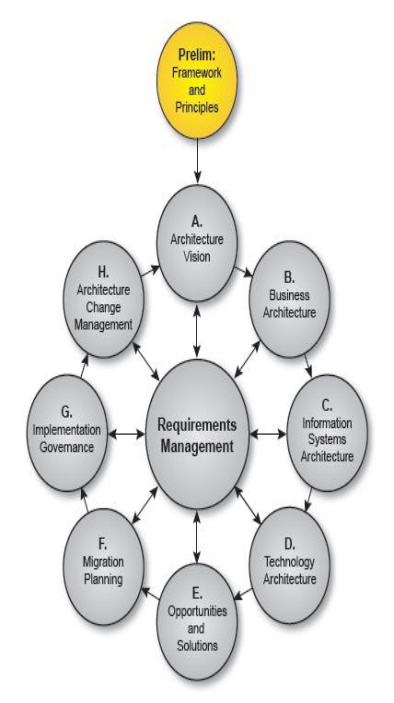
ADM – Preliminary Phase: One Look Summary

Get everyone on board with the plan: Preparing the Enterprise

About defining "where, what, why, who, and how we do architecture" in the Enterprise

What preparations needed ?

Establishes the architecture framework needed for the Long-Term Enterprise Architecture Initiative



Point Gallery

What Capability level : now, later ?

What all to be understood first ?

What all to be set up ?

Who all to be involved ?

Principles – Goals – Drivers : towards that – in what time frame ?

Customize what ?

Focus on :

Assess EA Capability

Set up Governance

(We recommend, they set it up)

(who are they – Topmost Management)

Establish Architecture Principles

Come up with Business Goals, Business Drivers

Tailor TOGAF

Document Produced in this Phase :

Request for Architecture Work

Artifact / BB Produced in this Phase :

Principles Catalog

What is important : Step name phrases as shown below.

Step details can be understood later as you read the Course Material, its Detailed portion.

Steps include, not necessary in strict sequential order :

Scope the Enterprise Organizations impacted

Confirm Governance and Support Frameworks

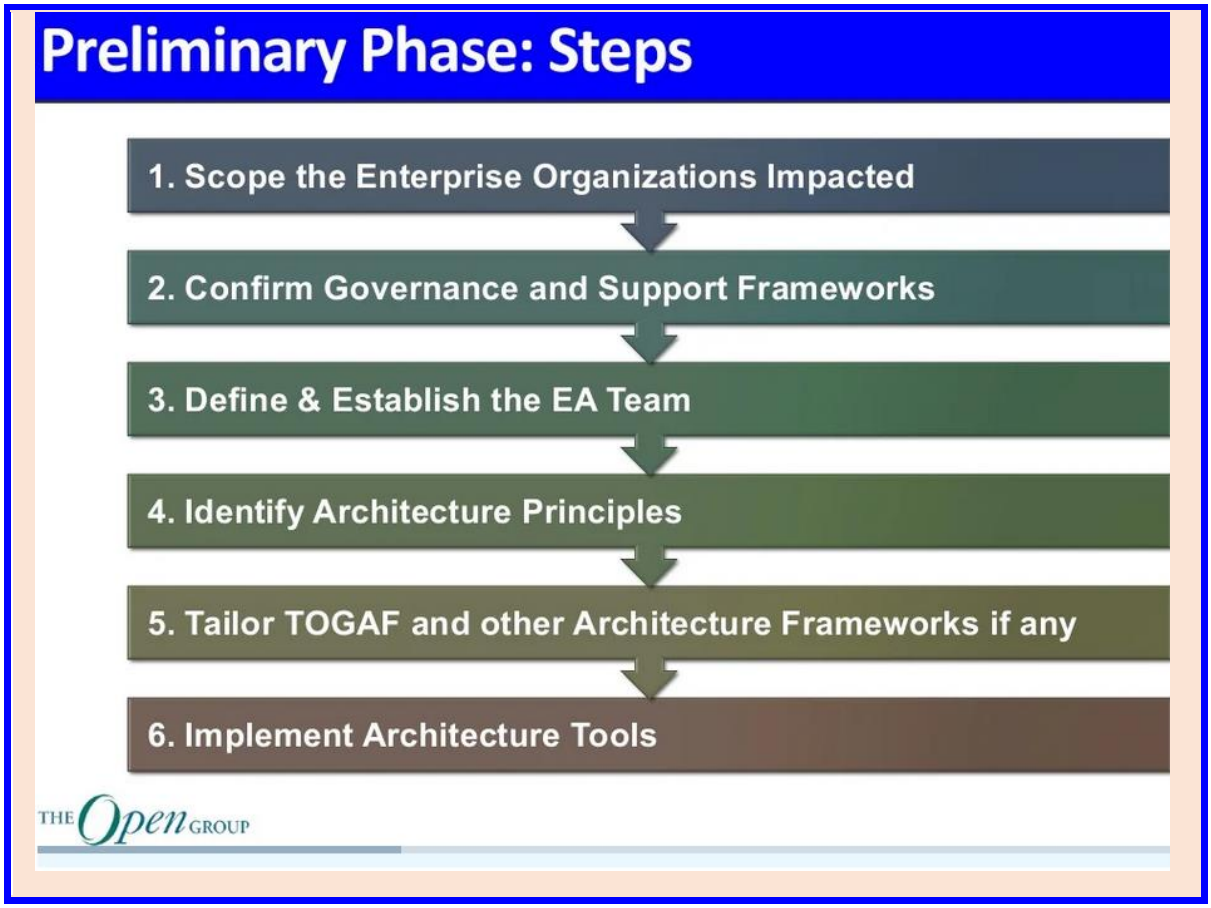
Define and establish Enterprise Architecture Team and organization

Identify and establish **Architecture Principles**

Tailor TOGAF and, if any, other selected Architecture Frameworks

Implement Architecture Tools

Document Produced in this Phase :
Request for Architecture Work
Artifact / BB Produced in this Phase :
Principles Catalog



Step : Scope the Enterprise Organizations Impacted

Which departments will be part of the Long-Term Initiative ?

Scoping the Enterprise : Understand the Organizational setup, lines of Core business, Architectural set up as of now : **All for entire Enterprise** and NOT for any one project scope. Project Scope does not come in at this Phase.

Identify and scope the organizations : which all entities / departments impacted by EA initiative ?

Which are the departments involved in work of Architecture Movement ?

Units = Departments that are participating in the proposed Architectural Movement

Define (Understand) **Architecture Footprint** - the overall area of coverage

– what is in EA, what is not

To define the "**architecture footprint**" for the organization

- the people responsible for performing architecture work, where they are located, and
what are their responsibilities
towards such an Architecture

define Arch  : people, location, responsibilities

Think : The word 'organization' in TOGAF means what ?
Answer : Most of the times, a department. Sometimes the entire Enterprise

A RELATED QUESTION, IN LEVEL 1 :

201

When Preliminary Phase refers to scope of the Enterprise Organizations Impacted, it **does not** refer to

A. Core business units

B. Group of Communities of stakeholders involved

C. Scope of individual projects

D. Extended Enterprise

Answer : C Refers to Enterprise units, groups – communities and partners but not any specific project.

Explanation : Let us note that a project is not a department while question context is about 'organizations.

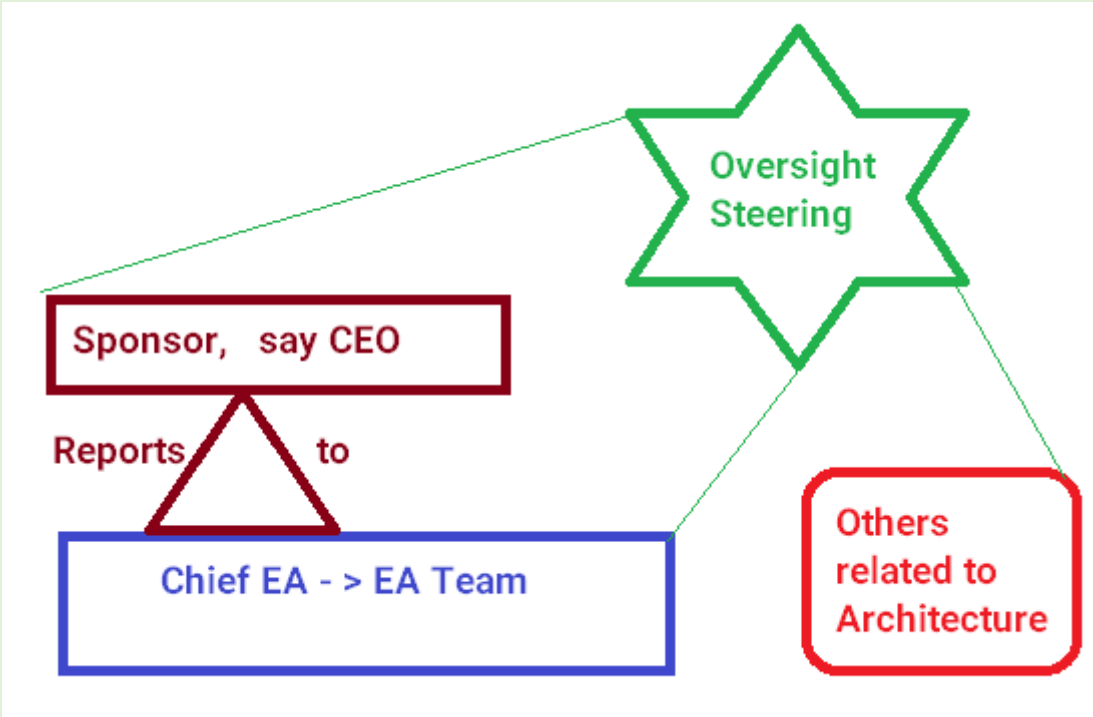
Organization in TOGAF is often used to refer to departments and units. Enterprise is the term used to refer to corporates and larger conglomerates.

Communities of stakeholders means - group of stakeholders, here in Preliminary Phase, it is making note of Topmost Level Stakeholder and those who come under this person.

Step : To confirm a Governance and Support Framework

- Governance means establishing and enforcing how people and solutions work together to achieve organizational objectives.

Related Step : Finding out a Sponsor for the entire Enterprise Architectural Movement



To identify the sponsor stakeholder(s)

Sponsoring person (say CEO) : creates ??? or approves a draft ??? (what)

Which is the affected area (department / Pain Point) / Modernization Outlook ?
Create Request for Architecture Work

Recommend a Governance Setup to the Top Management : Suggest a Steering committee set-up

(We recommend, they set it up)

(who are they – Topmost Management, through the Sponsor)

Governance and Support Framework

Architecture Board

Sponsor for Architectural Movement

Commitment of high Level Stakeholders

Governance can be explained as **"management of management"**

Think : What is the general meaning of Governance ?

Answer : "The system by which something is directed and controlled". It is concerned with structure and processes for decision making, accountability, control and behaviour at the top of some unit or group.

Think : Is the support framework here (Architecture Governance) same as Corporate Governance ?

Answer : Architecture Governance is the practice and orientation by which Enterprise Architectures and other related activities are managed and controlled at an Enterprise-wide level.

Architecture Governance typically does not operate in isolation, but within a hierarchy of governance structures, which, particularly in typical Enterprise, is known as Corporate Governance

A RELATED QUESTION, IN LEVEL 1

:  204

When Preliminary Phase refers to the governance and support framework, it is **not about**

A. A mechanism that will provide the business process for architecture governance
B. A mechanism that will refer name the department that will carry out the ADM
C. A mechanism that will confirm the fitness-for-purpose of the Target Architecture and measure its ongoing effectiveness
D. A mechanism that will provide the resources for architecture governance

Answer : B not about

A, C and D are about Governance of EA department along with other associated departments. Governance is one that provides governance process, confirms fitness for purpose and resources for carrying out the Architectural Governance

Explanation :

From the three correct points about Governance and Support Framework, get to know more about it. It is body of Oversight which looks into actions and responsibilities of the EA Team.

Related Step : Get Commitment

of all **highest-Level Stakeholders** to EA first, for the Movement

(These are part of the Support Framework)

Get Commitment of Top Executives about the proposals in the document : Requirements of Architecture Work

What is in this document ? Why this Commitment and preparing the Enterprise ?

Agree with whom?

stakeholders impacted by proposed EA initiative

Top-most Executive of each department

Get everyone on board with the plan: Part of : Preparing the Enterprise

To ensure that everyone who will be involved in, or benefit from, this approach is committed to the success of the architectural process

Get everyone on board

Obtain agreement on scope : Agree with whom ?

Step : Define and Establish Enterprise Architecture Team and Organization

Form the Team to achieve what is proposed in the Requirement of Architecture Work, over a strategic period, say five years or so.

Composition of the Team, Levels in it (EA level, Solution Architecture Level, including Full Stack Skillset Team and so on)

Think : Are Enterprise Architecture activities carried out by a single person ?

Answer : Enterprise Architecture, as function is usually with larger set-ups only, such as Corporate Company or Government and so on. It needs many types of architectural expertise, not just one person with TOGAF knowledge.

A RELATED QUESTION, IN LEVEL 1 :

202

When **Preliminary Phase refers to** Defining and Establishing the Enterprise Architecture Team and Organization, it is about

A. Determining the existing enterprise and business capability and establishing the Capability Maturity target
B. Reviewing the organizational context for conducting Enterprise Architecture and in the process identifying the elements of the enterprise organizations affected by the Architecture Capability
C. Conducting an enterprise architecture / business change maturity assessment, if required
D. Identifying the established frameworks, methods, and processes that intersect with the Architecture Capability
E. All of the above

Answer : E : Read every point and see

Explanation : This step is all about making a good assessment of Capability level, maturity level etc., with respect to current architectural practices and then allocate key roles and responsibilities for EA Team and all others connected with Enterprise Architecture Capability Management and Governance

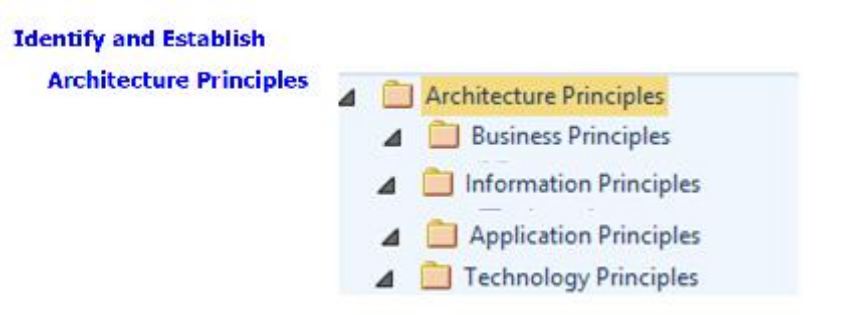
(Important) Step : Identify and Establish

Architecture Principles

Architecture Principles define the **underlying general rules and strict guidelines** for the use and deployment of all IT resources and assets across the Enterprise. They reflect a level of consensus among the various elements of the Enterprise, and form the basis for making future IT decisions.

Architecture Principles : Identify these and Define these and establish by getting concurrence of the Architecture Governance Board.

Henceforth everyone connected with Architecture and IT system are expected to follow these in all the activities, more like a Golden Command.



Principles : A qualitative statement of intent that **should always be met** by the Architecture

Principles are fundamental truths and practices based thereon. They serve as the foundation upon which one can build more complex systems and theories.

All above Artifacts are placed in a Building Block : Principles Catalog, in the format of :

Suppose the Application Principles is : Look for Common use of applications

principle name	AP.1 common use of applications
description	Development of applications that can be used enterprise-wide is preferred.
rationale/benefit	Business processes with strong similarities could be served by one application. This gives fewer applications in total. Also, common use leads to standardization within the organization.
impact	• Development of applications that can be shared should be planned. • Development of a new application is not allowed if an alternative is already available.

Description : A Narration

Rationale / Benefit : the justification, on advantages

Impact : Cautions and points to note

The Preliminary Phase defines the Architecture Principles that will form part of the constraints on **any** architecture work undertaken in the Enterprise.

Establish Architecture Principles for the Enterprise

Business Principles

Application Principles

Data Principles

Technology Principles

Four categories of Arch Principles are ?

Think : Is Principle same as Policy ?

Answer : The main difference between Principle and Policy is that a Principle is a rule that has to be followed while a Policy is a guideline that can be adopted.

A RELATED QUESTION, IN LEVEL 1

:  205

Which **one of the following** provides a foundation for making architecture and planning decisions, framing policies, procedures, and standards, and supporting resolution of contradictory situations ?

A. Architecture Principles
B. Buy Lists
C. Procurement Policies
D. Requirements
E. Stakeholder concerns

Answer : A Obviously, the Architecture Principles provide all these

Explanation :

Architecture Principles form the foundation for many important aspects of Enterprise Architecture. Get to know them well.

Buy List, Procurement Policies are part of Buying function and not EA

Requirements and Stakeholder arise during EA – ADM process. They are not foundations of EA but just certain elements in the process.

Related step : Define Goals and Drivers at Preliminary Phase

Define the Long Term Goals and Drivers behind them.

Goals represent a high-level statement of intent, direction, or desired end state for an organization and its Stakeholders – A natural fit into Preliminary Phase. Drivers are enabling conditions that align with the long term strategic motivation. They bring up the situations which "drive" the Enterprise to achieve the purpose - goal behind the motivation.

Principles : A qualitative statement of intent that **should always be met** by the Architecture

But,

Goals : What the Enterprise **hopes to achieve** in the strategic period

Such as : **To move from legacy to modern systems**

Goals : Hope to Achieve

Drivers : What will lead to the Achievement

Other than Principles Catalog (Artifact) of this Phase, a Document deliverable is discussed now.

Artifacts and the Building Blocks which contain them are potentially reusable in another project, if not in the same project.

However Documents may not be so much reusable, because they reflect details of one project.

Here, Request for Architecture Work is on the : The Request and Requirement covering the projects in the Long Term EA Initiative

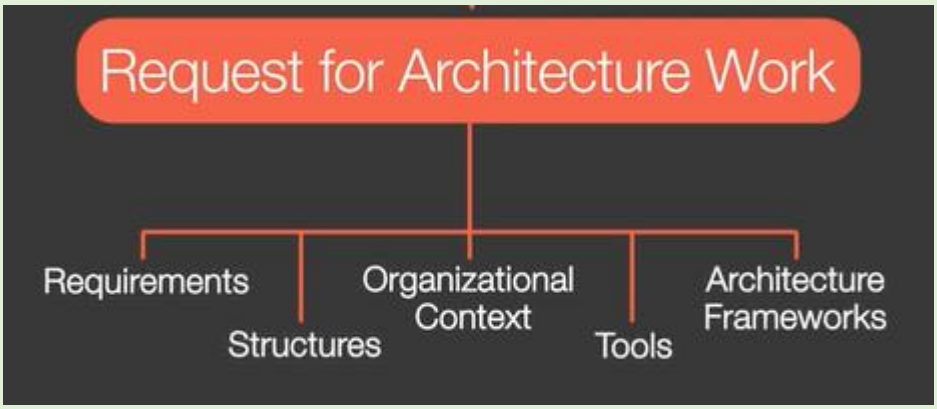
Create Request for Architecture Work and get it approved by the Sponsor (such as the CEO) : Contains the overall scope of work in removing the current Pain Points and in moving towards Modernization and Legacy Integration efforts. Strategic selection of path to be taken, lines of technology to be embraced and so on find place here.

On approval this document becomes Requirement for Architecture Work.

The sponsor to kick forward EA Activity and Goals

Through a document : **Request for Architecture Work**

Which later becomes **Requirement for Architecture Work**



This document is drafted by EA,

checked and approved and issued back on EA

by the sponsor (say CEO)

Note : This document is a deliverable

Are we to follow TOGAF recommendations line by line ?

No. Not at all necessary

You can customize them for your Enterprise

But, for Certification purpose, please follow the original document

Step : Tailor TOGAF and, if any, Other Selected Architecture Framework(s)

We need to learn TOGAF as it is for Certification Preparation, which in turn is aimed at giving us better understanding of the Framework. But once we get into an EA department and Preliminary Phase, **we have to tailor / fine-tune / customize / adapt the Framework in line with our Enterprise situations and needs**

Define a EA Framework. So, it is TOGAF. Or TOGAF + ... + ..

- To define the framework and detailed methodologies that are going to be used to develop Enterprise Architectures in the organization concerned (typically, an adaptation of the generic ADM)

define Framework (TOGAF or other ?), Methodologies

Now Tailor TOGAF so that it is fine tuned for this Enterprise :

This gets into Metamodel of the Architecture Repository

Tailor TOGAF

Terminology Tailoring

Process Tailoring

Content Tailoring

Three ways to Tailor TOGAF : 1 .. 2.. 3..

Step : Implement Architecture Tools

Select Soft, Software and Methodology Tools

that are needed to achieve the Long Term Motivation.

Upfront selection is advised, through more may get added later on as we proceed.

Means, select both software tools and soft tools and conceptual methodologies which all may follow. Can be an initial list now and can be supplemented later in the first ADM cycle

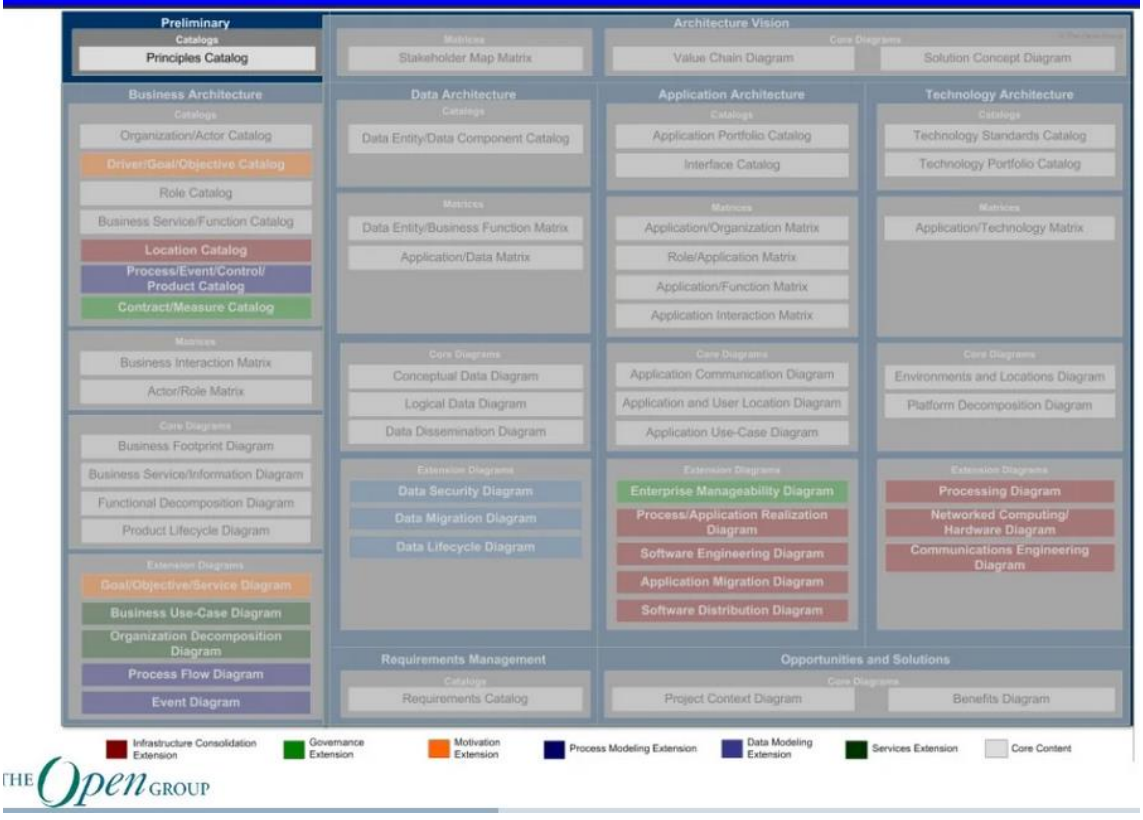
In **TOGAF 10**, this step is worded as : **Develop a strategy and implementation plan for Tools and Techniques**

 Artifact normally produced in Preliminary Phase …

 Document produced in Preliminary Phase

 TOGAF Framework tailored and stored in Architecture Repository

Preliminary Phase: Artifacts



Artifact / BB Produced in this Phase :
Principles Catalog

Document Produced in this Phase :
Request for Architecture Work
(Requirement for Architecture Work)

Get to know the Objective of each ADM Phase

The objectives / techniques of the Preliminary Phase are :

1. Determine the Architecture Capability desired by the organization :

Where are we now ?

In finding out the Architecturally Challenging areas:

Reviewing Organizational Context

Landscape of the Organization is a study of all of its Challenge Issues,

in all its areas of Operation

To review the organizational context for conducting Enterprise Architecture

Organizational Context – the landscape of the Enterprise organization : aka : Organizational Model

2. Establish the Architecture Capability :

Where will be in .. years ? Through what Architecture Strategy ?

Commit the Requirements for Architecture Work

Determine where we are

Establish what we plan to achieve

You have to come up with the 'model' (long term strategy) that is needed to raise the Capability level. This includes defining strong 'Principles' to base the architectural (ADM) process.

Architecture Capability :

These are a combination of

business processes,

people (organization, knowledge and skills, culture),

technology solutions, and

assets (facilities, funds, etc.)

(and all organization resources around Architecture)

aligned by strategic performance objectives

Objectives of …… Phase

Determine ___ Capability (assess, find out what is there)

Establish ____ Capability (Make plans to achieve till ..)

A MUST READ Summary of the steps of Preliminary Phase

Scoping the Enterprise : Understand the Organizational setup, lines of Core business, Architectural set up as of now : **All for entire Enterprise** and NOT for any one project scope. Project Scope does not come in at this Phase.

Recommend a Governance Setup to the Top Management : Suggest a Steering Committee set-up, that is in line with TOGAF Documentation (See Chapter 44 for details)

Create Request for Architecture Work and get it approved by the Sponsor (such as the CEO) : Contains the overall scope of work in removing the current Pain Points and in moving towards Modernization and Legacy Integration efforts. Strategic selection of path to be taken, lines of technology to be embraced and so on find place here. **On approval, this document becomes Requirement for Architecture Work.**

Get Commitment of Top Executives about the proposals in the above document.

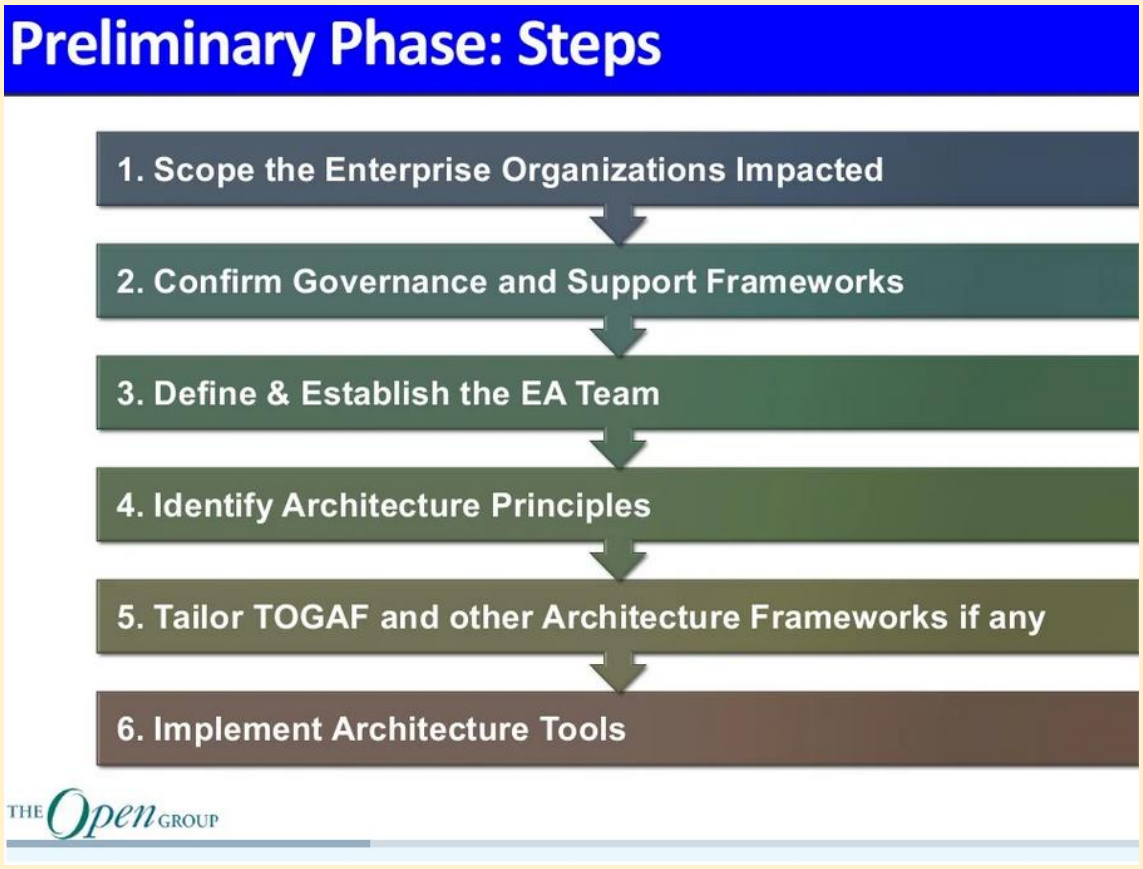
Form the Team to achieve what is proposed in the Requirement of Architecture Work, over a strategic period, say five years or so. Composition of the Team, Levels in it (EA level, (B D A T) Segment Solution Architecture Level, including Full Stack Architecture Skillset Team composition and so on)

Architecture Principles : Identify these and Define these and establish by getting concurrence of the Architecture Governance Board. Henceforth everyone connected with Architecture and IT system are expected to follow these in all the activities.

Define the Long Term Goals and Drivers behind them. Goals represent a high-level statement of intent, direction, or desired end state for an organization and its Stakeholders – A natural fit into Preliminary Phase. Drivers are enabling conditions that align with the long term strategic motivation. They bring up the situations which "drive" the Enterprise to achieve the purpose - goal behind the motivation.

Tailoring TOGAF : We need to learn TOGAF as it is for Certification Preparation, which in turn is aimed at giving us better understanding of the Framework. But once we get into an EA department and Preliminary Phase, **we have to tailor / fine-tune / customize / adapt the Framework in line with our Enterprise situations and needs**.

Select Soft, Software and Methodology Tools needed to achieve the Long Term Motivation. Upfront selection is advised, through more may get added later on as we proceed.



Now, Moving a little away from Preliminary Phase

Very important to get to know parts of TOGAF documentation

Open TOGAF 9.2 Documentation online and examine it

Search :

Or use link :

https://pubs.opengroup.org/architecture/togaf9-doc/arch/

You will need this link to be open most of the time in this course

Similar Content will **open during your Level 2 Exam**.

Sorry, not during Level 1 Exam

Never to neglect point

TOGAF 9.2 Parts

Part I: Introduction

Part II: Architecture Development Method

Part III: ADM Guidelines & Techniques

Part IV: Architecture Content Framework

Part V: Enterprise Continuum & Tools

Part VI: Architecture Capability Framework

Part I : Introduction : This part provides a high-level introduction to the key concepts of Enterprise Architecture and, in particular, to the TOGAF approach. It contains the definitions of terms used throughout TOGAF and release notes detailing the changes between this version and the previous version of TOGAF.

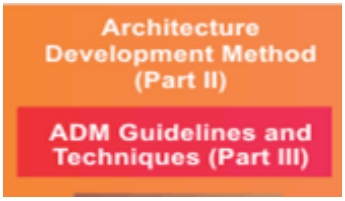
Part I:

Introduction

* Broad overview of the standard

* Definitions of key terms used in the standard

Architecture Development Method



– major portion of TOGAF is all about this

Part II : It describes the TOGAF Architecture Development Method (ADM) – a step-by-step approach to developing an Enterprise Architecture.

The Architecture Development Method (ADM)

Part II:

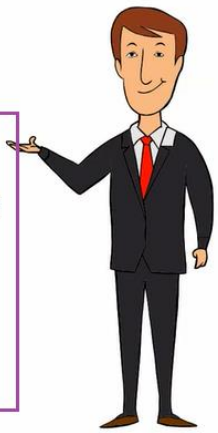
* The ADM is easily the most important aspect of TOGAF

* Ten Phases the middle eight being labelled A-H

* Requirements Management Phase relates with with phases A-H

ADM Phases

1. Preliminary
2. Phase A - Architecture Vision
3. Phase B - Business Architecture
4. Phase C - Information Systems Architecture
5. Phase D - Technology Architecture
6. Phase E - Opportunities and Solutions
7. Phase F - Migration Planning
8. Phase G - Implementation Governance
9. Phase H - Architecture Change Management
10. Requirements Management



Part III : ADM Guidelines and Techniques : This part contains a collection of guidelines and techniques available for use in applying the ADM.

Part II is the step by step process, ...

Part III is the Guidelines – how to go about ADM
and best practice Techniques

ADM Guidelines & Techniques

Part III

* Guidelines and techniques for implementing the ADM

Key concepts discussed are

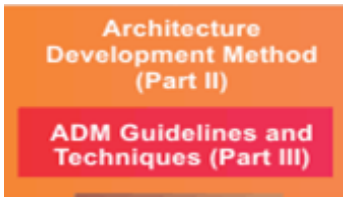
- Architecture Principles
- Business Scenarios
- Gap Analysis
- Interoperability
- Risk Management

Part II = : What is there

Part III = How to go about using ADM

: How to

Part III : ADM Guidelines and Techniques is a set of **resources - guidelines, templates, checklists, and other detailed materials** - that support application of the TOGAF ADM.



Architecture Content Framework

Part IV

* Describes concepts about artefacts that will be stored
* Concepts discussed include:
  - Views and viewpoints
  - Stakeholders and Concerns
  - Deliverables

Part V Enterprise Continuum & Tools

* Classification of architecture outputs - taxonomy

  - Enterprise Continuum
    - Architecture Continuum
    - Solutions Continuum

Retrieval Classification
Indexed Lookup

* Architecture Repository

Placing Classification
Storage Schema

Architecture Capability Framework

Part VI

* Organization, skills roles, and responsibilities

  - Architecture Governance
  - Architecture Board
  - Architecture Contract
  - Architecture Compliance

Think : Which version of TOGAF that I should look for online to see the documentation ?

Answer : TOGAF 9.2

A RELATED QUESTION, IN LEVEL 1 :

203

Which part of the TOGAF document provides a number of architecture development phases, together with narratives for each Phase ?

A. Part I: Introduction
B. Part II: Architecture Development Method (ADM)
C. Part III: ADM Guidelines and Techniques
D. Part IV: Architecture Content Framework
E. Part V: Enterprise Continuum and Tools

Answer : B Differentiate between Part II and Part III, while both are on ADM

Explanation :

PART II: Architecture Development Method describes the TOGAF Architecture Development Method : (ADM) - a step-by-step approach to developing an Enterprise Architecture in a number of phases.

Name of each Part of TOGAF documentation

Think : Which Part of TOGAF documentation refers to ADM ?

Answer : See Part II and Part III

All other parts are 'around ADM' and are not 'about ADM'

A RELATED QUESTION, IN LEVEL 1 :

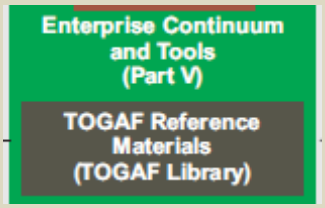
218

Which is **not** in the Parts of TOGAF documentation ?

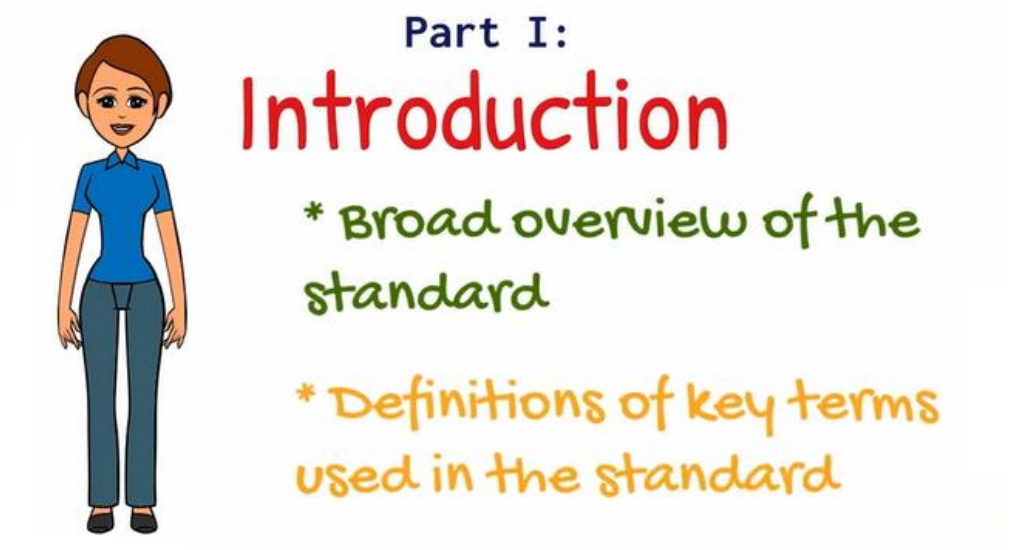
A. ADM Guidelines and Techniques
B. Architecture Content Framework
C. Architecture Capability Framework
D. Architecture Development Method
E. Enterprise Continuum and Tools
F. TOGAF Reference Models

Answer : F Certification is based on TOGAF 9.2

Explanation : TOGAF Reference Models was a distinct part in TOGAF 9.1 However in TOGAF 9.2 it is just a portion of Part V : Enterprise Continuum and tools



Part II =  : What is there



A good number of Level 2 questions, which are Scenario based, would focus on the Steps in an ADM Phase.

But do not ignore the Approach portion of any ADM Phase

5. Preliminary Phase

Chapter Contents

5.1 Objectives | 5.2 Inputs | 5.3 Steps | 5.4 Outputs | 5.5 Approach

5.3 Steps

The steps within the Preliminary Phase are as follows:

- 5.3.1 Scope the Enterprise Organizations Impacted
- 5.3.2 Confirm Governance and Support Frameworks
- 5.3.3 Define and Establish Enterprise Architecture Team and Organization
- 5.3.4 Identify and Establish Architecture Principles
- 5.3.5 Tailor the TOGAF Framework and, if any, Other Selected Architecture Framework(s)
- 5.3.6 Develop a Strategy and Implementation Plan for Tools and Techniques

5.5 Approach

This Preliminary Phase is about defining "where, what, why, who, and how we do architecture" in the enterprise concerned. The main aspects are as follows:

- Defining the enterprise
- Identifying key drivers and elements in the organizational context
- Defining the requirements for architecture work
- Defining the Architecture Principles that will inform any architecture work
- Defining the framework to be used
- Defining the relationships between management frameworks
- Evaluating the Enterprise Architecture maturity

Part 2 : Module 2 Questions and Answers (Also Explanations)

Please answer questions appearing below on a piece of paper and then check the answer and explanation appearing immediately below the questions. Some Questions may be on earlier modules too.

You can choose the ones you want to answer now and keep the rest for a workout on your own later on.

The pictures that appear next to the question is only to break the monotony and has no special meaning.

The star rating gives you a clue of the relative importance of questions, from Certification viewpoint. Three-star questions may appear more often than two star and so on

Think : The word 'organization' in TOGAF means what ?

Answer : Most of the times, a department. Sometimes the entire Enterprise

201 When Preliminary Phase refers to scope of the Enterprise Organizations Impacted, it does not refer to

A. Core business units

B. Communities of stakeholders involved

C. Scope of individual projects

D. Extended Enterprise

Answer : C

Explanation : Let us note that a project is not a department while question context is about 'organizations'.

Organization in TOGAF is often used to refer to departments and units. Enterprise is the term used to refer to corporates and larger conglomerates.

Think : Are Enterprise Architecture activities carried out by a single person ?
Answer : Enterprise Architecture, as function is usually with larger set-ups only, such as Corporate Company or Government and so on. It needs many types of architectural expertise, not just one person with TOGAF knowledge.

202 When Preliminary Phase refers to Defining and Establishing the Enterprise Architecture Team and Organization, it is about

A. Determining the existing enterprise and business capability and establishing the Capability Maturity target
B. Reviewing the organizational context for conducting Enterprise Architecture and in the process identifying the elements of the enterprise organizations affected by the Architecture Capability
C. Conducting an enterprise architecture / business change maturity assessment, if required
D. Identifying the established frameworks, methods, and processes that intersect with the Architecture Capability
E. All of the above

Answer : E

Explanation : This step is all about making a good assessment of Capability level, maturity level etc., with respect to current architectural practices and then Allocate key roles and responsibilities for EA Team and all other connected with enterprise Architecture Capability management and governance

Think : Which version of TOGAF that I should look for online to see the documentation ?

Answer : TOGAF 9.2

203 Which part of the TOGAF document provides a number of architecture development phases, together with narratives for each Phase ?

A. Part I: Introduction
B. Part II: Architecture Development Method (ADM)
C. Part III: ADM Guidelines and Techniques
D. Part IV: Architecture Content Framework
E. Part V: Enterprise Continuum and Tools

Answer : B

Explanation :

Differentiate between Part II and Part III, while both are on ADM

PART II: Architecture Development Method describes the TOGAF Architecture Development Method : (ADM) - a step-by-step approach to developing an Enterprise Architecture in a number of phases.

Think : What is the general meaning of Governance ?

Answer : Governance can be defined as: "The system by which something is directed and controlled". It is concerned with structure and processes for decision making, accountability, control and behaviour at the top of some unit or group.

Think : Is the support framework here (Architecture Governance) same as Corporate Governance ?

Answer : Architecture Governance is the practice and orientation by which Enterprise Architectures and other related activities are managed and controlled at an enterprise-wide level.

Architecture Governance typically does not operate in isolation, but within a hierarchy of governance structures, which, particularly in typical Enterprise, is known as Corporate Governance

204 When Preliminary Phase refers to the governance and support framework, it is not about

A. A mechanism that will provide the business process for architecture governance
B. A mechanism that will name and refer to the department that will carry out the ADM
C. A mechanism that will confirm the fitness-for-purpose of the Target Architecture and measure its ongoing effectiveness
D. A mechanism that will provide the resources for architecture governance

Answer : B not about

Explanation :

From the three correct points about Governance and Support Framework, get to know more about it. It is body of Oversight which looks into actions and responsibilities of the EA Team.

A, C and D are about Governance of EA department along with other associated departments. Governance is one that provides governance process, confirms fitness for purpose and resources for carrying out the Architectural Governance

Think : Is Principle same as Policy ?

Answer : The main difference between Principle and Policy is that a Principle is a rule that has to be followed while a Policy is a guideline that can be adopted.

205 Which one of the following provides a foundation for making architecture and planning decisions, framing policies, procedures, and standards, and supporting resolution of contradictory situations ?

A. Architecture Principles
B. Buy Lists
C. Procurement Policies
D. Requirements
E. Stakeholder concerns

Answer : A

Explanation :

Obviously, the Architecture Principles provide all these

Architecture Principles form the foundation for many important aspects of Enterprise Architecture. Get to know them well.

Buy List, Procurement Policies are part of Buying function and not EA

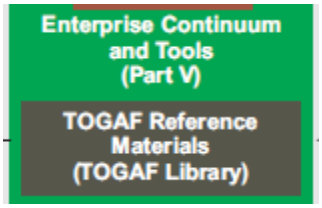
Requirements and Stakeholder arise during EA – ADM process. They are not foundations of EA but just certain elements in the process.

206 Which is not in the Parts of TOGAF ?

A. ADM Guidelines and Techniques
B. Architecture Content Framework
C. Architecture Capability Framework
D. Architecture Development Method
E. Enterprise Continuum and Tools
F. TOGAF Reference Models

Answer : F

Explanation : TOGAF Reference Models was a distinct part in TOGAF 9.1 However in TOGAF 9.2 it is just a portion of Part V : Enterprise Continuum and tools




207 Which part of TOGAF describes a step-by-step approach to developing an enterprise architecture ?

A. ADM Guidelines and Techniques

B. Architecture Capability Framework

C. Architecture Content Framework

D. Architecture Development Method

E. Enterprise Continuum & Tools

Answer : D

Explanation :

ADM, Architecture Development Method – Part II, is the one that describes a step-by-step approach to developing an enterprise architecture. It has chapters for Preliminary Phase, Phases A to H and also the Requirements Management Phase.

PART II (Architecture Development Method) This part is the core of the TOGAF framework. It describes the TOGAF Architecture Development Method (ADM) — a step-by-step approach to developing an Enterprise Architecture


208 
Which of the following is not an objective and action of the Preliminary Phase ?

A. Understand the business environment

B. Ensure high-level management commitment, obtain agreement on scope

C. Establish principles and establish governance structure

D. Agree architecture method to be adapted

E. Articulate an Architecture Vision and value proposition

Answer : E

Explanation :

Vision is related to Phase A

Understand Business Environment : = Scope the enterprise organizations impacted

High-level management commitment := Finding out a sponsor

Establish principles : =Define the Architecture Principles

Agree architecture method to be adopted : = Define an EA Framework

Articulate an Architecture Vision : = Happens in Phase

209 Which one statement about Architecture Principles is not correct ?

A. A good set of principles is complete.

B. A principle is a general rule or guideline.

C. A principle is transient and updated frequently.

D. A principle statement should be succinct and unambiguous.

E. They are described in a standard way.

Answer : C

Explanation :

Principles are intended to be enduring and seldom amended.

Recollect :

The quality criteria for defining Architecture Principles are :

Stable, Understandable, Complete, Robust, Consistent

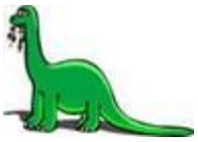
Stable : Do not change often

Understandable : Precise, simple

Complete : Nothing hidden or left out

Robust : Bring in strength to Architecture

Consistent : Does not clash with one another


210  Which section of the TOGAF template for Architecture Principles should highlight the business benefits for adhering to the principle ?

A. Implications

B. Name

C. Rationale

D. Statement

Answer : C

Explanation :

The section of the TOGAF template for Architecture Principles that highlights the business benefits for adhering to the principle is – Rationale.

Principles are expressed based on a template.

Name	Should both represent the essence of the rule as well as be easy to remember.
Statement	Should succinctly and unambiguously communicate the fundamental Rule
Rationale	Should highlight the business benefits of adhering to the principle, using business terminology
Implications	Should highlight the requirements, both for the business and IT, for carrying out the principle — in terms of resources, costs, and activities/tasks


211 
Which one of the following lists the five quality criteria for defining Architecture Principles ?

A. Rational, Explained, Precise, Stated, Identifiable

B. Comprehensive, Future proof, Short, Concise, Consistent

C. Open, Enabling, Flexible, Agile, Dynamic

D. Stable, Understandable, Complete, Robust, Consistent

Answer : D

Explanation :

Architecture Principles : quality criteria - SUCRC : Stable, Understandable, Complete, Robust, Consistent

Contemplate on each of the five quality criterion to realize how it is important in arriving at appropriate Architecture Principles.

Also note that Quality Criteria is different from actual qualities themselves.


212

Which of the statements does NOT correctly describe Architecture Principles ?

A. They are most effective when they are embraced and used across the organization

B. They are based on enterprise principles

C. They are detailed policies that prescribe behavior and requirements

D. Even though they may appear generic, they should be tailored to reflect an organization's culture and goals

Answer : C

Explanation :

Architecture Principles are not – policy statements. They are guidelines, that are drawn upon the enterprise principles such that they reflect the (architectural) culture and goal of the enterprise. That is why they are adapted and used across the entire enterprise.

Architecture Principles, forever important in TOGAF


Architecture Principle : A qualitative statement of intent that should be met by the architecture.

Example : Use only standard products from reputed vendors

Example : Even Agile approach in coding requires initially strong levels of Architecture and Design


213

According to TOGAF, who usually initiates a Request for Architecture Work ?

A. The architecture organization

B. The CIO/CTO

C. The corporate governance board

D. The senior management

E. The sponsoring organization

Answer : E

Explanation :

Knowing about the originator of Request for Architecture Work, the one that sets of the Preliminary Phase is important.

This is a document that is sent from the sponsoring organization to the architecture organization to trigger the start of an architecture development cycle. Requests for Architecture Work can be created as an output of the Preliminary Phase, a result of approved architecture Change Requests, or terms of reference for architecture work originating from migration planning.

214 Which Phase of the ADM relates to agreement reached on the architecture method to be adapted ?

A. Preliminary Phase

B. Phase A

C. Phase B

D. Phase E

E. Requirement Management Phase

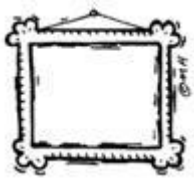
Answer : A

Explanation :

Whether to use ADM as it is for architecture method, or to tailor it – this is done in the Preliminary Phase itself.

Define the EA Framework. So it is TOGAF. Or TOGAF + …. + ..

- To define the framework and detailed methodologies that are going to be used to develop enterprise architectures in the organization concerned (typically, an adaptation of the generic ADM) define Framework (TOGAF or other ?), Methodologies

215  Complete the sentence. In the Preliminary Phase, all of the following are part of preparing the organization to undertake successful enterprise architecture, except _____

A. Defining architecture principles

B. Defining relationships between management frameworks

C. Defining the enterprise

D. Evaluating the enterprise architecture maturity

E. Identifying stakeholders and their concerns about specific projects

Answer : E

Explanation :

Preliminary Phase covers - defining a) architecture principles, b) defining relationships between management frameworks such as Governance Framework and Operational Frameworks c) defining the context of the enterprise d) evaluating architecture maturity as it is of the enterprise.

Specific projects, known in TOGAF as "Architecture Projects" come into picture only from Phase A and not in Preliminary Phase

There lies the point which leads to success of the EA process. Understand it beyond just getting the answer right.


216 Which of the following describes a step of the Preliminary Phase ?

A. Develop a vision of the proposed enterprise architecture

B. Document the baseline architecture

C. Obtain approval for the Statement of Architecture Work

D. Operate the governance framework

E. Select and implement tools

Answer : E : Only answer which is the step of Preliminary Phase

Explanation :

Develop a vision of the proposed enterprise architecture – This is in Phase A

Document the baseline architecture – We see these predominantly in Phase B to D

Obtain approval for the Statement of Architecture Work – This is also in Phase A

Operate the governance framework – EA formulates a Governance Framework as a draft in Preliminary Phase. The same will have to approved (with modifications if needed) by the Architecture Governance board. Thereafter operating the Governance Framework is by the Architecture Governance Board

217 According to TOGAF, which of the following activities is described as part of the approach in the Preliminary Phase of the ADM ?

A. Creating the Architecture Vision deliverable

B. Defining a set of Architecture Principles

C. Developing an Architecture Contract

D. Extending the business scenario with business modeling

E. Preparing a consolidated Gap Analysis

Answer : B

Explanation :

It is important to lean about approach of each and every Phase.

5.5 Approach

The main aspects are as follows :

■ Defining the enterprise

■ Identifying key drivers and elements in the organizational context

■ Defining the requirements for architecture work

■ Defining the Architecture Principles that will inform any architecture work

■ Defining the framework to be used

■ Defining the relationships between management framework

■ Evaluating the Enterprise

Think : Which Part of TOGAF documentation refers to ADM ?

Answer : See Part II and Part III

All other parts are 'around ADM' and are not 'about ADM'

218 Which is not in the Parts of TOGAF ?

A. ADM Guidelines and Techniques
B. Architecture Content Framework
C. Architecture Capability Framework
D. Architecture Development Method
E. Enterprise Continuum and Tools
F. Architecture Repository

Answer : F 2

Explanation : Architecture Repository is a chapter and a portion of :

It is not an independent Part of the TOGAF documentation

219 Complete the sentence.

TOGAF 9 Part III provides a set of resources that can be used to adapt and modify the _____.

A. Architecture Capability

B. Architecture Development Method

C. Architecture Landscape

D. Architecture Repository

E. Enterprise Continuum

Answer : B

Explanation :

TOGAF 9 Part III provides a set of resources that can be used to adapt and modify the ADM : Architecture Development Method.

Note clearly that Part III of TOGAF documentation is useful in adapting and modifying ADM to suit the working style of the specific projects and portfolios. It is not useful in modifying most other Parts of TOGAF, but only Part II

See : **17.1 under Introduction to Part III**

This chapter provides an introduction to the guidelines and techniques provided in Part III: ADM Guidelines & Techniques.

The Architecture Development Method (ADM) process can be adapted to deal with a number of different usage scenarios, including different process styles (e.g., the use of iteration) and also specific specialist architectures (such as security).

Refer to TOGAF 9.2 online documentation while starting to prepare for Level 2 Questions

Very important to get to know parts of TOGAF documentation

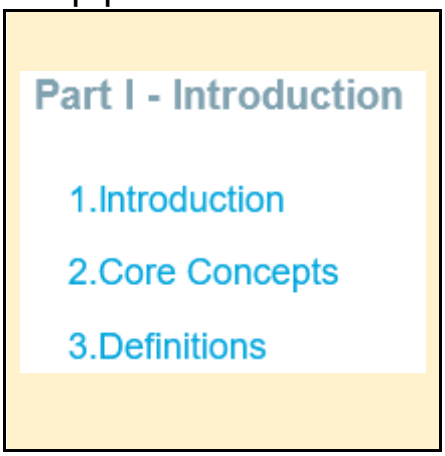
https://pubs.opengroup.org/architecture/togaf9-doc/arch/

You will need this link to be open most of the time in this course

Similar content will **open during your Level 2 Exam**.

Sorry, not during Level 1 Exam

Help point 1 :



Direct questions unlikely from above Part 1 section of the TOGAF documentation, in Level 2 Exam, through the content herein are good candidates for Level 1 Exam questions.

Hint 2 : Nevertheless, be prepared. In Level 2 for overall areas such as :

Where all TOGAF can be applied and not applicable :

Applies to all "Enterprise" : where an Enterprise can be as per Section **1.3;** It is worthwhile reading this whole section to be clear with a) What are the benefits of an Enterprise Architecture? b) What specifically would prompt the development of an Enterprise Architecture?

Hint 3 : Advanced Hint : Section 2.9 Establishing the Architecture Capability as an Operational Entity is the beginning of a series of content pages relating the "Capability" and will go on till our Courseware Module 20. Keep noting down points therein, since Capability is a favourite questioning subject.

A Level 2 question, as it would appear in Exam :

Scenario Based Question : SBR – 2001

SomeCo Ltd. is an organization involved in import and export of industrial goods. They are now looking to get the company listed in NYSE – New York stock Exchange. Their financial experts have concluded that it is time to increase their capital by going for public equity.

The Enterprise is contemplating to deploy a good part of the fresh capital raised into IT estate, improvising their software and hardware capabilities, which in turn will raise the level of Architectural and Business capability of the Enterprise.

The CIO has been sounded by the Top Management to take necessary action in this regard. CIO senses this as a big transformation and so has decided to set it as an Enterprise Architecture Initiative. The CIO expects a long-term roadmap to be drawn up for the emergence and continuous growth of all IT applications and facilities.

You are stepping in as the newly appointed Chief Enterprise Architect. You have decided to use TOGAF as the possible framework to assess and establish the Architecture Capability.

Select the best among the following options which will help you stay in track as per TOGAF practices.

A.

You start the process by defining the enterprise. You study and arrive at the key drivers of the organization. You determine existing enterprise and business capability and conduct an Enterprise Architecture assessment through a business change maturity assessment. Thus you settle down the main requirements for architecture work. You Define the Architecture principles and clarify the framework to be used tailoring it to the organization. You now establish an Enterprise Architecture Team confirming the Governance and Support frameworks.

B.

You start the process by defining the enterprise. You study and arrive at the key drivers of the organization. You determine existing enterprise and business capability and conduct an Enterprise Architecture assessment through a business change maturity assessment. Thus you settle down the main requirements for architecture work. You Define the Architecture principles and clarify the framework to be used tailoring it to the organization. You now establish an Enterprise Architecture Team confirming the Governance and Support frameworks. You also define Partnership and contract agreements.

C.

You start the process by defining the enterprise. You study and arrive at the key drivers of the organization. You determine existing enterprise and business capability and conduct an Enterprise Architecture assessment through a business change maturity assessment. Thus you settle down the main requirements for architecture work. You clarify the framework to be used tailoring it to the organization. You now establish an Enterprise Architecture Team confirming the Governance and Support frameworks.

D.

You start the process by defining the enterprise. You study and arrive at the key drivers of the organization. You determine existing enterprise and business capability. You now establish an Enterprise Architecture Team confirming the Governance and Support frameworks. You verify that the Enterprise Board assigned a specific budget to support a high-quality IT Architecture Team

There should be a technique in approaching this question. Note that

The correct answer scores 5 points,

The second best answer 3 points,

The third best answer 1 point.

The **distracter scores zero points**.

Forget the lines in the question which are pure background :

SomeCo Ltd. is an organization ~~involved in import and export of industrial goods~~.

~~They are now looking to get the company listed in NYSE – New York stock Exchange.~~ Their financial experts have concluded that it is time to increase their capital by going for public equity.

The Enterprise is contemplating to deploy a good part of the fresh capital raised into IT estate, improvising their software and hardware capabilities, which in turn will **raise the level of Architectural and Business capability of the Enterprise**.

The CIO has been sounded by the Top Management to take necessary action in this regard. CIO senses this as a big transformation and so has decided **to set it as an Enterprise Architecture Initiative**. The CIO expects **a long-term roadmap to be drawn up f**or the emergence and continuous growth of all IT applications and facilities.

You are stepping in as the newly appointed Chief Enterprise Architect. You have decided to use TOGAF as the possible framework to assess and establish the Architecture Capability.

Select the best among the following options which will help you stay in track as per TOGAF practices.

Hand holding clues and approach tips:

Issues in focus : Expansion of capital ; Road map for big transformation; Current state of architecture is not yet known to you

Aims : Establish Architecture Capability

To do : Selecting best approach : Here it is preparing the organization as per TOGAF through Preliminary Phase

To recollect steps of preliminary phase : TOGAF documentation chapter 5 : **DO NOT PROCEED TILL IT IS OPEN IN A WINDOW IN YOUR SYSTEM**

Steps include, not necessary in strict sequential order :

- Scope the enterprise organizations impacted
- Confirm governance and support frameworks
- Define and establish Enterprise Architecture team and organization
- Identify and establish Architecture Principles
- Tailor the TOGAF framework and, if any, other selected architecture frameworks
- Develop a strategy and implementation plan for tools and techniques

Now read each answer choice. Rate them for being in conformance with what is needed : **Aims :** Establish Architecture Capability

A.

You start the process by defining the enterprise. You study and arrive at the key drivers of the organization. You determine existing enterprise and business capability and conduct an Enterprise Architecture assessment through a business change maturity assessment. Thus you settle down the main requirements for architecture work. You Define the Architecture principles and clarify the framework to be used tailoring it to the organization. You now establish an Enterprise Architecture Team confirming the Governance and Support frameworks.

In tune with steps ?

Defining the enterprise = Reviewing Organizational Context, key drivers of the organization

Setting Requirements of Architecture Work : This is in line with section 5.3.3. Define requests for change to existing business programs and projects

Define the Architecture principles : Very important step

Clarify the framework to be used, also tailoring it : TOGAF, and it needs adopting

Determine existing enterprise and business capability and conduct an Enterprise Architecture assessment through a business change maturity assessment : This is to evaluate the architecture maturity = Leads to arriving at scope of the elements of the organization

Establish an Enterprise Architecture Team confirming the Governance and Support frameworks : towards defining an EA Framework : Team of your (Chief Architect) is selected. Recommendation for Architecture Governance Board is made by you and top Management will appoint right persons for it.

B.

You start the process by defining the enterprise. You study and arrive at the key drivers of the organization. You determine existing enterprise and business capability and conduct an Enterprise Architecture assessment through a business change maturity assessment. Thus you settle down the main requirements for architecture work. You Define the Architecture principles and clarify the framework to be used tailoring it to the organization. You now establish an Enterprise Architecture Team confirming the Governance and Support frameworks. You also define Partnership and contract agreements.

In tune with steps ?

Defining the enterprise = Reviewing Organizational Context, key drivers of the organization

Setting Requirements of Architecture Work : This is in line with section 5.3.3. Define requests for change to existing business programs and projects

Define the Architecture principles : Very important step

Clarify the framework to be used, also tailoring it : TOGAF, and it needs adopting

Determine existing enterprise and business capability and conduct an Enterprise Architecture assessment through a business change maturity assessment : This is to evaluate the architecture maturity = Leads to arriving at scope of the elements of the organization

Establish an Enterprise Architecture Team confirming the Governance and Support frameworks : towards defining an EA Framework : Team of your (Chief Architect) is selected. Recommendation for Architecture Governance Board is made by you and top Management will appoint right persons for it.

Not in tune, steps are not of this Phase at all :

Define Partnership and contract agreements. : This is an input. Read section 5.2 for previous contracts . Also, fresh Contracts are part of Phase F and Phase G and not Phase A.

C.

You start the process by defining the enterprise. You study and arrive at the key drivers of the organization. You determine existing enterprise and business capability and conduct an Enterprise Architecture assessment through a business change maturity assessment. Thus you settle down the main requirements for architecture work. You clarify the framework to be used tailoring it to the organization. You now establish an Enterprise Architecture Team confirming the Governance and Support frameworks. You also define Partnership and contract agreements.

In tune with steps ?

Defining the enterprise = Reviewing Organizational Context, key drivers of the organization

Setting Requirements of Architecture Work : This is in line with section 5.3.3. Define requests for change to existing business programs and projects

Clarify the framework to be used, also tailoring it : TOGAF, and it needs adopting

determine existing enterprise and business capability and conduct an Enterprise Architecture assessment through a business change maturity assessment : This is to evaluate the architecture maturity = Leads to arriving at scope of the elements of the organization

Establish an Enterprise Architecture Team confirming the Governance and Support frameworks : towards defining an EA Framework : Team of your (Chief Architect) is selected. Recommendation for Architecture Governance Board is made by you and top Management will appoint right persons for it.

Major step that is missing : Define the Architecture principles : It is very important step in Preliminary Phase

D.

You start the process by defining the enterprise. You study and arrive at the key drivers of the organization. You determine existing enterprise and business capability. You now establish an Enterprise Architecture Team confirming the Governance and Support frameworks. You verify that the Enterprise Board assigned a specific budget to support a high-quality IT Architecture Team

In tune with steps ?

Defining the enterprise = Reviewing Organizational Context, key drivers of the organization

You determine existing enterprise and business capability : This is partly in line with section 5.3.3.

Establish an Enterprise Architecture Team confirming the Governance and Support frameworks : towards defining an EA Framework : Team of your (Chief Architect) is selected. Recommendation for Architecture Governance Board is made by you and top Management will appoint right persons for it.

Major steps that are missing :

Clarify the framework to be used, tailoring it

Define the Architecture principles

Setting Requirements of Architecture Work

This answer mostly not in tune, some steps are not of this Phase at all, at least not as per TOGAF documentation : Such as : Verify that the Enterprise Board assigned a specific budget to support a high-quality IT Architecture Team.

Answer :

Best answer : A

This is the correct answer, addressing Approach and Steps of the Preliminary Phase. Refer to Chapter 5

B : Second best answer. All points covered are ok. But defining Partnership and contract agreements is an INPUT of the preliminary phase.

C : Third best answer. Architecture Principles must be defined and a major missing point.

D : This is a distractor; many steps are not as defined from TOGAF 9.

This Scenario : Where would it fit ?

What is the focus ?

The scenario is fully about Security Architecture. (Note that we just do not have a Phase exclusively about Security Architecture. Further the TOGAF core Documentation does not even contain a Chapter devoted to Security Architecture)

But we note from the documentation : 3.11 Architecture Domain

The architectural area being considered. The TOGAF framework has four primary architecture domains : business, data, application, and technology. Other domains may also be considered (e.g., security).

17.3 Using the TOGAF Framework with Different Architectural Styles

The TOGAF framework is designed to be flexible and it can be used with various architectural styles. Further information can be found in the following Guides

:■ Integrating Risk and Security within a TOGAF Enterprise Architecture (this is separate from the TOGAF main documentation. Not available during Level 2 Certification Exam)

To this effect, Security is being mentioned and is an underlying concept during every Phase of ADM.

But for Certification purposes what kind of knowledge should we be having ? Following SBR question needs going into before you get the clarity.

Scenario Based Question : SBR - 2002

AGEX is a large, global commodities trading company which has been growing rapidly through a series of acquisitions.

Each new business is performing well in its markets. However, the lack of integration between headquarters and the business units has increasingly caused problems in the handling of customer and financial information.

The inability to share information across businesses has resulted in lost opportunities to "leverage the synergies" that had been intended when the businesses were acquired. At present, each business unit maintains its own applications. Despite an earlier initiative to install a common application to manage customer, products, supplier, and inventory information, each business unit has different ways of defining each of these core elements and has customized the common application to the point where the ability to exchange information is difficult, costly, and error-prone.

As a result, AGEX has begun implementing a single Enterprise Resource Planning (ERP) system to consolidate information from several applications that exist across the lines of business. The Corporate Board is concerned that the new ERP system must be able to manage and safeguard customer information in a manner that meets or exceeds the legal requirements of the countries in which the company operates. This will be an increasingly important capability as the company expands its online services offered to clients and trading partners.

The CIO has formed an Enterprise Architecture department, and one of the primary goals in its charter is to coordinate efforts between the ERP implementation team and the business unit personnel who will be involved in the migration process. The CIO has also formed a cross-functional Architecture Review Board to oversee and govern the architecture.

After reviewing the available alternatives, and based on recommendations from the ERP vendor, AGEX has selected TOGAF 9 as the basis for its Enterprise Architecture program.

The CIO has endorsed this choice with the full support of top management.

You are serving as the Chief Architect.

You have been asked to recommend the approach to take in the Preliminary Phase to ensure that the Corporate Board's concern is addressed.

Based on TOGAF 9, which of the following is the best answer ?

A. You evaluate the implications of the Board's concern in terms of regulatory and security policy requirements. You then update the AGEX security policy to reflect the concern, ensuring that this policy is communicated across the organization.
You allocate a security architecture team to ensure that security considerations are included in ongoing architecture planning. You then assess the security implications and agreements within the AGEX businesses and their suppliers.

B. You evaluate the implications of the Board's concern in terms of regulatory requirements and their impact on business goals and objectives. Based on this understanding, you then issue a Request for Architecture Work to commence an architecture development project to develop a solution that will address the Board's concern.

You allocate a security architect to oversee the implementation of the solution in the ERP system that is being developed.

C. You start by clarifying the intent that the Board has for raising this concern. This enables you to understand the implications of the concern in terms of regulatory requirements and the potential impact on current business goals and objectives.

You propose that a security architect or security architecture team be allocated to develop comprehensive security architecture.

D. You evaluate the implications of the Board's concern by examining the potential impacts on business goals and objectives. Based on your understanding, you then update the current AGEX security policy to include an emphasis on the Board's concern.

In addition, you allocate a security architect to ensure that security considerations are included in the architecture planning for all domains.

Issues in focus :

Lack of integration between central unit and business units

Going for single ERP solution to consolidate all the information.

Concern : That the new ERP system must be able to manage and safeguard customer information in a manner that meets or exceeds the legal requirements of the countries in which the company operates

Cross-functional Architecture Review Board (Governance body) is formed.

Aim :

Study the alternative approaches to take in the Preliminary Phase to ensure that the concern is addressed.

To do :

Select the best alternative.

What to refer in TOGAF documentation ?

A.
You evaluate the implications of the Board's concern in terms of regulatory and security policy requirements. – This is what is the core point of this set of actions appearing in this scenario

You then update the AGEX security policy to reflect the concern, ensuring that this policy is communicated across the organization. – A step that reflects the Architecture Principle definition, which is most important in Preliminary Phase

You allocate a security architecture team to ensure that security considerations are included in ongoing architecture planning. Goes with the step : 5.3.3 Define and Establish Enterprise Architecture Team and Organization

You then assess the security implications and agreements within the AGEX businesses and their suppliers.
Goes with the step : 5.3.1 Scope the Enterprise Organizations Impacted

B.
You evaluate the implications of the Board's concern in terms of regulatory requirements and their impact on business goals and objectives. What about the Security related concern ?

Based on this understanding, you then issue a Request for Architecture Work to commence an architecture development project to develop a solution that will address the Board's concern.

You allocate a security architect to oversee the implementation of the solution in the ERP system that is being developed. Appointing a Security Architect is fine, but many points of Preliminary Phase relating to identifying and involving the "communities affected" – meaning the departments and partners involved, is left out

C.
You start by clarifying the intent that the Board has for raising this concern. – This is obvious and not a great point.

This enables you to understand the implications of the concern in terms of regulatory requirements and the potential impact on current business goals and objectives. We need steps more than understanding. Further the security concern is not mentioned at all.

You propose that a security architect or security architecture team be allocated to develop comprehensive security architecture. Appointing a Security Architect is fine, but many points of Preliminary Phase relating to identifying and involving the "communities affected" – meaning the departments and partners involved, is left out

D.
You evaluate the implications of the Board's concern by examining the potential impacts on business goals and objectives.
Based on your understanding, you then update the current AGEX security policy to include an emphasis on the Board's concern. – A step that reflects the Architecture Principle definition, which is most important in Preliminary Phase

In addition, you allocate a security architect to ensure that security considerations are included in the architecture planning for all domains. Appointing a Security Architect is fine, but many points of Preliminary Phase relating to identifying and involving the "communities affected" – meaning the departments and partners involved, is left out

Answer :

Most Correct : A

This is the best answer. Look at the green points and discussion thereon.

Second Best : D

Two valid points. Also both concerns are mentioned

Third Best : B

Two valid points. Also Security concern not mentioned

Distracter : C

See all red points and decide for yourself

This Scenario : Where would it fit ?
What is the focus ?

Scenario based questions appear without fail from Preliminary Phase and Vision Phase in every Level 2 Exam.

Sometimes it can be combined question involving both the Phases. But more often it is on one specific Phase.

When the emphasis is on Principles, it could be on Preliminary Phase. Similar Stakeholder Management distinguished it to be on Phase A.

The idea of why Principles are necessary is important more than getting into memory all the possible Principles mentioned in the documentation and in our Course Material

Scenario Based Question : SBR –2003

APEX is a large, global commodities trading company which has been growing rapidly through a series of acquisitions.

Each new business is performing well in its markets. However, the lack of integration between headquarters and the business units has increasingly caused problems in the handling of customer and financial information.

The inability to share information across businesses has resulted in lost opportunities to "leverage the synergies" that had been intended when the businesses were acquired. At present, each business unit maintains its own applications. Despite an earlier initiative to install a common application to manage customer, products, supplier, and inventory information, each business unit has different ways of defining each of these core elements and has customized the common application to the point where the ability to exchange information is difficult, costly, and error-prone.

As a result, APEX has begun implementing a single Enterprise Resource Planning (ERP) system to consolidate information from several applications that exist across the lines of business. The Corporate Board is concerned that the new ERP system must be able to manage and safeguard customer information in a manner that meets or exceeds the legal requirements of the countries in which the company operates. This will be an increasingly important capability as the company expands its online services offered to clients and trading partners.

The CIO has formed an Enterprise Architecture department, and one of the primary goals in its charter is to coordinate efforts between the ERP implementation team and the business unit personnel who will be involved in the migration process. The CIO has also formed a cross-functional Architecture Review Board to oversee and govern the architecture.

After reviewing the available alternatives, and based on recommendations from the ERP vendor, AGEX has selected TOGAF 9 as the basis for its Enterprise Architecture program.

The CIO has endorsed this choice with the full support of top management.

You are serving as the Chief Architect.

As part of the process for establishing the Enterprise Architecture department, you have decided to create a set of principles to guide the activities.

You have been asked to recommend the best approach for this work.

Based on TOGAF 9, which of the following is the best answer?

A. You define a set of principles that support the preferred best practices embodied in the Enterprise Architecture department charter.
You publish the principles on the corporate intranet to ensure widespread acceptance and compliance.

You then schedule regular periodic Compliance Assessments with individual business units to check that they have made satisfactory progress toward meeting the objectives and conditions embodied in the principles.

B. You gather information from credible industry sources in the commodities business. Based on that, you assess current trends and apply that to defining a set of principles that embody best practices.

You select architecture principles that do not conflict with each other and that should be stable.

You ensure that all the principles are realistic and avoid including principles that are obvious.

C. You examine the mission statements for APEX and each of its businesses, together with the corporate value statements.
Based on that, you define a set of principles and review with the CIO.

When developing the principles you ensure that they actively promote the alignment of IT with the business strategies and initiatives of APEX.

You then seek the endorsement of the CIO and senior management.

D. You examine the mission statements for APEX and each of its businesses, together with the corporate value statements.

Based on that, you work with the Architecture Review Board to define the principles.

When developing the principles you ensure that they actively promote the alignment of IT with the APEX business strategies. You then run a series of reviews with all the relevant stakeholders, including senior management, ensuring their support.

Issues in focus :

Integration post Acquisition not smooth

Inability to share information. (Previous attempts without TOGAF and ADM have failed)

Now going for a single Enterprise Resource Planning (ERP) system to consolidate information from several applications that exist across the lines of business.

Concerned that the new ERP system must be able to manage and safeguard customer information in a manner that meets or exceeds the legal requirements of the countries in which the company operates.

Aim :

Enterprise Architecture department formed, as also a cross-functional Architecture Review Board to oversee and govern the architecture. TOGAF is the framework and The CIO (the sponsor) has endorsed this choice with the full support of top management.

Aim now is to create a set of Principles to guide the activities

To do :

To recommend the best approach for this work

What to refer in TOGAF documentation ?

In Preliminary Phase : 5.3.4 Identify and Establish Architecture Principles

Architecture Principles are based on business principles and are critical in setting the foundation for Architecture Governance. Once the organizational context is understood, define a set of Architecture Principles that is appropriate to the enterprise.

A. You define a set of principles that support the preferred best practices embodied in the Enterprise Architecture department charter. – Not something mentioned in TOGAF

You publish the principles on the corporate intranet to ensure widespread acceptance and compliance. – Principles are never formed based on acceptance of all involved in the architecture. On the other hand they follow it and comply with it.

You then schedule regular periodic Compliance Assessments with individual business units to check that they have made satisfactory progress toward meeting the objectives and conditions embodied in the principles. – TOGAF does not have such an Assessment just to check if Principles are followed.

B. You gather information from credible industry sources in the commodities business. Based on that, you assess current trends and apply that to defining a set of principles that embody best practices.
– Principles are formed more from the business environment and the value that can come out of Architecture.

You select architecture principles that do not conflict with each other and that should be stable.

You ensure that all the principles are realistic and avoid including principles that are obvious.

These two points are part of the Characteristics of Principles. But the question is more on the steps relating to Principles and NOT about its qualities

C. You examine the mission statements for APEX and each of its businesses, together with the corporate value statements. – True
Based on that, you define a set of principles and review with the CIO. – True. CIO, being the sponsor in this scenario has a role in its review. But how are the Principles formulated ? Just by the EA people or any higher body also is connected with it ?

When developing the principles you ensure that they actively promote the alignment of IT with the business strategies and initiatives of APEX. – True. Very important that TOGAF is means to align Business and IT and Principles are the backbone for the same.

You then seek the endorsement of the CIO and senior management. – True. But Preliminary Phase does mention taking everyone on Board.

D. You examine the mission statements for APEX and each of its businesses, together with the corporate value statements. – True Based on that, you work with the Architecture Review Board to define the principles. - True, this the proper way in which Principles are formulated. Involvement of the Board is a must.

When developing the principles you ensure that they actively promote the alignment of IT with the APEX business strategies. – True. Very important that TOGAF is means to align Business and IT and Principles are the backbone for the same.

You then run a series of reviews with all the relevant stakeholders, including senior management, ensuring their support.- True. This is not a Review of the Principles before its formulation. This is about the way an essential step meant to explain the long term Movement that is starting in this Phase and which is having Principles as it backbone is proceeded.

Answer :

Most Correct : D

This is the best answer. Scores over C in the way the Principles are formulated.

Second Best : C

Only a thin edge makes this as the second best choice

Third Best : B

Study its brown and also the red points.

Distracter : A

See all red points and decide for yourself

Do try the following question, after studying all about Architecture Principles. Do go through Chapter 20 of TOGAF Documentation

Scenario Based Question : SBR –2004

You are serving as the Lead Enterprise Architect at a major supplier in the automotive industry. The company is headquartered in Cleveland, Ohio with manufacturing plants across the United States, Brazil, Germany, Japan and South Korea. Each of these plants has been operating its own planning and production scheduling systems, as well as custom developed applications that drive the automated production equipment at each plant.

The company is implementing lean manufacturing principles to minimize waste and improve the efficiency of all of its production operations. During a recent exercise held for internal quality improvement, it was determined that a significant reduction in process waste could be achieved by replacing the current planning and scheduling systems with a common Enterprise Resource Planning (ERP) system located in the Cleveland data center.

This central system would provide support to each of the plants replacing the functionality in the existing systems. It would also eliminate the need for full data centers at each of the plant facilities. A reduced number of IT staff could support the remaining applications. In some cases, a third-party contractor could provide those staff.

The Enterprise Architecture department has been operating for several years and has mature, well-developed architecture governance and development processes that are strongly based on TOGAF 9.

At a recent meeting, the Architecture Board approved a Request for Architecture Work sponsored by the Chief Engineer of Global Manufacturing Operations. The request covered the initial architectural investigations and the development of a comprehensive architecture to plan the transformation.

The Common ERP Deployment architecture project team has now been formed, and the project team has been asked to develop an Architecture Vision that will achieve the desired outcomes and benefits. Some of the plant managers have expressed concern about the security and reliability of diving their planning and production scheduling from a remote centralized system. The Chief Engineer wants to know how these concerns can be addressed.

One of the earliest initiatives in the Enterprise Architecture program was the definition of a set of architecture principles. These now need to be updated to address the concerns raised. You have been asked to select a set of principles most appropriate for guiding the team to define a robust solution.

Based on TOGAF 9, which of the following is the best answer ?

A. Common-use Applications, Control Technical Diversity, Ease of Use, Interoperability, Data is Shared, Data is Accessible, Data Security

B. Business Continuity, Common-use Applications, Maximize Benefit to the Enterprise, Data is Shared, Data is Accessible, Data Security

C. Technology Independence, Data Trustee, Information Management is Everybody's Business, IT Responsibility, Responsive Change Management

D. Service-orientation, Responsive Change Management, Business Continuity, Data is Accessible, Data Security

Correct Answer : C

Hints :

The question is about Principles which will focus on the concerns to be addressed.

First list the concern :

Security and reliability of diving their planning and production scheduling from a remote centralized system.

Now see if any of the four answers meet it in full :

A. Common-use Applications, Control Technical Diversity, Ease of Use, Interoperability, Data is Shared, Data is Accessible, Data Security

B. Business Continuity, Common-use Applications, Maximize Benefit to the Enterprise, Data is Shared, Data is Accessible, Data Security

C. Technology Independence, Data Trustee, Information Management is Everybody's Business, IT Responsibility, Responsive Change Management

D. Service-orientation, Responsive Change Management, Business Continuity, Data is Accessible, Data Security

Answer choice C is the best due to following Principles which are most relevant in addressing the concerns,

Data Trustee, Information Management is Everybody's Business

Part 3 : Detailed Courseware

Link to watch Orbus Software video again :

https://www.youtube.com/watch?v=PVz_-Mrlzqk&t=41s

Now about other interesting videos that you may like to watch

A video to understand the concept of Capability and how it is closely related to Architecture and IT systems

Less than 5 Minutes

https://www.youtube.com/watch?v=umGHmyXJ6qk&t=194s

A Lengthy (50 Min) video explaining about Architecting for the Enterprise

https://www.youtube.com/watch?v=ZK4_e2i6ujo&t=2701s

You may even defer watching it till the end of the course

A video related to the step of : Scope the Enterprise Organizations impacted : Organizational Context – the landscape of the Enterprise organization : aka : Organizational Model

https://www.youtube.com/watch?v=gEbCFfgxc0s

A Third Party Video Case Study : AnYsuRance

The Case Study Introduction

https://www.youtube.com/watch?v=o8egBBMIjnU :

10 Minutes

Note the SIX points in the video under the picture with the central title : Setting up framework and Principles. These are important for Preliminary Phase. Make a note of what are all set up.

Those who are in Consulting / Managed Service / Service proving vendor environment but the target Enterprise is different, the role of Philip in this series of videos is important

https://www.youtube.com/watch?v=cvJW38udD5E

10 Minutes

Listen about various reuse of existing Architectural assets mentioned. This includes Architecture Repository. This is for an Enterprise with some kind of Architectural Landscape.

Also note how it talks about going back to Preliminary or Vision Phase from certain other ADM Phases. Try to capture the idea of "Iterating between Phases, by going back"

Note the role of Andrew, the CIO and the issues he is facing,

Note how Business Model of is shown against TOGAF 9 Template – Organizational Model for Enterprise Architecture appearing towards end of this video (around 9th Minute) .

https://www.youtube.com/watch?v=8CE4_OeaqUY

11 Minutes :

Gets into Business Drivers, Business Goals and so on, Also Tailoring TOGAF appears around 7th Minute

https://www.youtube.com/watch?v=ycazuPa-5uw&t=182s

Less than 7 Minutes

Coverage on Architectural Principles

If interested in knowing more about the parts of TOGAF do visit :

https://www.youtube.com/watch?v=4Mf6f9ta_3Y&t=92s

For a recap on B D A T, do visit :

https://www.youtube.com/watch?v=iYuUQBhzpHg

For getting to know more on Tailoring TOGAF

Note that this video talks about Tailoring as per the video author's choice and his Enterprise. It may be different in your case

https://www.youtube.com/watch?v=4S8yMAHNDyU

And to get to know the summary on Request for Architecture Work

https://www.youtube.com/watch?v=lWjCc9BFS4Q&t=40s

Do read our notes of caution appearing below

Caution : Why AnYsuRance is not 100% in sync with our course

The scope and coverage in this Case Study is large.

Some screens show TOGAF 9.1 doc. You instead will have to refer to TOGAF 9.2 in such cases

Views and points of this video presenter may not be in full conformance with what was taught in the course by the Expert Faculty. The Case Study here is broader than the concise one taken up in the short duration course.

Be prepared for some mix up in the presentation here : for example SBBs are sometimes mixed up with Phases that deal with ABB and so on.

What is shown in Phases C to D here is not same as TOGAF where they expect SBB action in Phase E

Similarly Phase G of TOGAF appears to be intermixed with Phase C to E in the video. Even Phase B talks about some platform specific architectures which are part of Phase E.

Also note that the Case Study in these videos are based on traditional SOA (and not Microservices) and are centered on a Java, non-cloud implementation.

Not all videos from this Series are recommended and links included. But you are welcome to trace them from in-video links and go through the ones not given as link in our Courseware :

For getting all videos in this series, in You Tube, search as : rd teev togaf

Part 1 and Part 2 as appearing in these video titles are not necessarily mapped to Level 1 and Level 2 Certifications. It is a level of complexity as envisaged by the video author. But similarities to Certification levels may appear in the video classification.

Nice to Know Box :

When should Enterprise Architecture be done ?

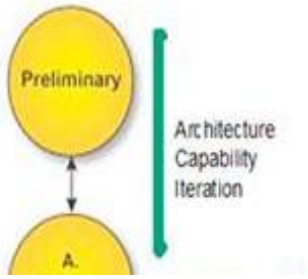
To get the greatest benefit from Enterprise Architecture it should be done early and throughout the change process to help decision-makers understand the implications of their decisions.

Without this understanding, costly mistakes can be made and Enterprise Architecture is not serving it fullest potential. Enterprise Architecture done after decisions are made is merely documentation of those decisions or at best enforcement of those decisions. No insight is gained as to the effect of those decisions which could be far-reaching and perhaps detrimental.

(From TOGAF 10 documentation, Relevant for TOGAF 9.2 also)

Nice to Know Box

EA Project = 'the EA Theme of Long Term Strategy'



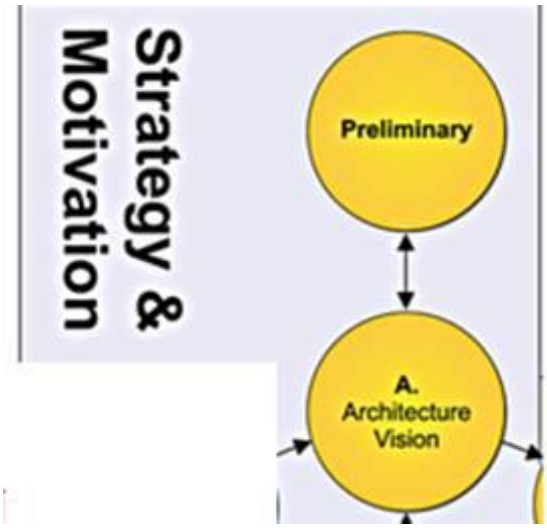
Not carried out for every (Architecture) Project / Programme

Not carried out for every Portfolio Initiatives

Business Enterprise uses IT to achieve business objectives

IT professionals, under the guidance of EA Team must be able to bridge the gap between themselves and the business LOB Team.

TOGAF involves more of managerial outlook and so focusses on the logical work of understanding business and aligning IT infrastructure services according business needs



From Punch Phrases of Pain Points / Modernization Outlook, such as :

To move from legacy to modern systems

Building an Architectural Capability

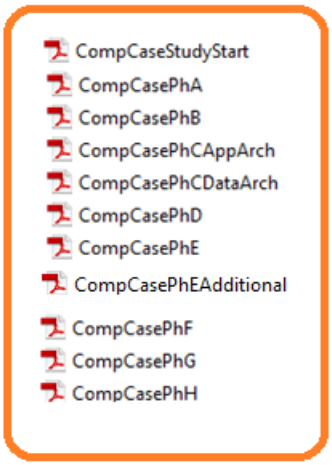
reduce OPex of the IT estate through Rationalization

reduce CAPex through Cloud enablement

Improve Security of all current and future Systems

For us – in this course, a Case Study takes an EA Project Goal (Strategic Architecture Initiative) of Enhancing Architecture Capability **for all Greenfield and Brownfield projects to meet a high Capability maturity level of zz , to be achieved in xx years**

Case Study .pdf files are part of your download. They start with the words CompCase to indicate that it is a Comprehensive Case Study.



Case Study : **Not needed for Certification purpose**

Read the Case Study Nice to Know Box and all these many times, **ONLY if you want to get a full hold of practical way** TOGAF is placed in a **typical End User Brick and Mortar Enterprise**

But a Certification in popular Enterprise Architecture Framework (like TOGAF)

is appreciated by Enterprises :

Both

End target Enterprise

And by Consultancy – Project rendering Enterprises

Nice to Know Box

One or more Points such as :

Coping with higher volumes

Social Media Integration

Enterprise Mobility

Analytics across Enterprise Data

Cloud Enablement reduce OPEX

To reduce OPEX of the IT estate

Reorienting Business and IT

Moving to a smarter approach

New product line to be introduced

IT enabling higher volumes

Security weakness to be tightened

Source data automation

IT rationalization : Simplifying IT projects into a few

Introducing Analytics in areas where data is rich and bulky

Improving Customer perception though variety of approaches

Improved 'Business Performance' in all automation areas

Improving bottom-line without considering increase in top line

Gradual replacement of legacy and obsolete technology which drags down business, revenue and efficiency

To enhance capability through state-of-art automation in Call Centres and Service Desks, all points of Source Data Automation and integrate them with Artificial Intelligence support, resulting from a revamped Data System in toto

Usually one or more among such points are selected as a EA project, say in focus for next … (5) years

These are **Pain Points / Futuristic Outlook** needing a long term, Strategic solution provided through **Enterprise Projects**

We will go for one large overall Strategic Initiative for our discussion :

What is going to happen in Preliminary Phase ?

It is usually led by the Chief Enterprise Architect of the Enterprise

Prepares the Enterprise

for "doing architecture"

Need to get Everyone on board

Understand Organization Context

Need to understand the Scope (Context)

Needs a Capability Maturity Assessment,
as of NOW

Quiz Time

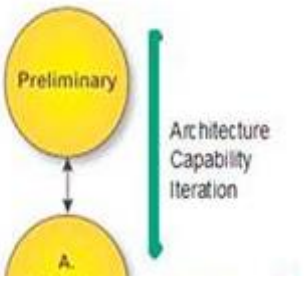
Prepares what ?

Prepares the Enterprise for "doing architecture"

But how to do that ?

Prepare Enterprise and its departments

This is **done before** moving into specific project portfolios in Phase A



Specific project name and requirements are not yet defined:

Involve Highest Level stakeholders

Get the high-level business goals

Understand the Scope (Pain points / Modernization Outlook) of the Enterprise

Define **EA Project : Strategic Goal** : Long Term Initiatives such as :

To move from legacy to modern systems

EA Project = the EA Theme GOALS of Long Term Strategy'

This is done ONLY at the start of a specific Architecture Development Cycle, in Phase A

One OR more of :

Coping with higher volumes	Social Media Integration
Enterprise Mobility	Analytics across Enterprise Data
Cloud Enablement reduce OPEX	To reduce OPEX of the IT estate
Reorienting Business and IT	Moving to a smarter approach
New product line to be introduced	IT enabling higher volumes
Security weakness to be tightened	Source data automation

IT rationalization : Simplifying IT projects into a few

Introducing Analytics in areas where data is rich and bulky

Improving Customer perception though variety of approaches

Improved 'Business Performance' in all automation areas

Anything like these
Pain Point or
Points for Modernization

Goals : What the Enterprise **hopes to achieve** in the strategic period

The Enterprise Architect identifies and harvests the Architecture Principles, based on the high-level Goals

Also set a Capability Maturity Target over … Years

Principles : A qualitative statement of intent that **should always be met** by the Architecture

Such as : **To move from legacy to modern systems**	Like : Follow Modeling in Architecture

 TOGAF, duly tailored	Architecture Framework to be used is established. The ADM and rest of TOGAF is to be tailored towards specific needs of the Enterprise. **Adapting / Tailoring / Customizing TOGAF**

Nice to Know Box

Understand the Organizational Context

Who will benefit (impacted by) the Architectural Initiatives : identifying who they are, what they care about, and how we can better get to know our audience.

This Context Footprint is about and understanding of their needs and what drives them is an important early part of the process of getting into Enterprise Architecture.

Also important to narrow the list of our audience and then to meet and get commitment of only the Topmost People at this stage.

At the same time, identify Communities : Departments, internal and external groups : There are a lot of different groups of people (inside the Enterprise and with Extended Enterprises) who could be interested in this IT-Architecture initiatives

From **Case Study** :

Nice to Know Box

Points of Essence :

eCommerce initiative

Minimal set first and then continuous addition of other features

Initiative should remain open for futuristic additions and opportunities

Involves Customers and Vendors as major external elements

From **Case Study** : **Scope the Enterprise Organizations Impacted**

Nice to Know Box

Think of the E-Commerce Enterprise :

Scoping the Enterprise : Study of its Organizational Structures

Finding out lot about the Enterprise : **Organizational Context**

Finding the way Architecture is currently applied : **Architecture Footprint**

Focus on the Architecturally Challenging areas

A large Corporate which has presence in many fields now wants to enter into E-Commerce.

… long-term strategic aim of filling up a large gap in the existing e-Commerce ecosphere ..

.. near term they want to establish a minimal set of E-commerce delivery ..

Scope the Enterprise :

.. obtained an Organization Chart of departments and executives as it is existing now
.. understood the LOB – Line of Business users of the IT systems

Architecture Footprint :

.. no central IT Operations Department and only individuals work on own in every store or every physical location where computers and automation systems exist

.. isolated Architects and Designers, but they just come under CTO; project work of preparing Architecture and Design documents is assigned to them randomly

A few are Business Analysts, a few are Application specialists, a few are Data specialists but none of them are having dedicated Infrastructure focus. A Security Architect is also there.

From **Case Study** : **To confirm a Governance and Support Framework**

Nice to Know Box

Sponsorship

Recommending a Governance Board setup in line with TOGAF recommendations

As a first step, you need a sponsorship : the authority for you to go ahead with EA tasks. Usually a CxO, and more so the CEO is the sponsor.

You should work towards setting up a Governance setup, called the "**Architecture Board**"

Made responsible for the following :

to guarantee that common rules are respected

to ensure that implementation projects are supported

to oversee improvement of Architectural Capability

While you are administratively under the CEO, you know that there are a few situations are there when you will have to reach a higher body of Wisdom and Advice. You recognize this body as "Architecture Governance Board"

It will comprise of 4 more (other than yourself) Top Management Officials, especially those with exposure to Architecture and IT. The CEO will be a part of it

Quiz Time

Spot the Architecture Governance activities

Oversight on Capability creating Assets

Oversight on Assets being re-used during Capability Creation

Approving Long Term Plans

Approving Policy, Principles, ADM Processes

Yearly Review of Arch projects in pipeline

Monthly Quick-Look on progress and completion

Resolving highest level People conflict on Architecture

~~Weekly Review of EA department and its status on projects~~

(This is the sponsor function)

Nice to Know Box

The TOGAF Standard does not attempt to describe all aspects of implementation and operational governance; only those areas directly related to the Architecture under development.

It assumes that detailed governance for those areas is in place. The Preliminary Phase includes confirmation of the Architecture Governance and support strategy as part of the Organizational Model for Enterprise Architecture.

It needs to be understood up-front that the governance requirements for a distributed architecture such as MSA are going to be very different from traditional Enterprise Architectures, even those focused on SOA.

In order to function efficiently, an MSA team must follow two parallel tracks for governance; making its own governance decisions as needed, applied only to that MSA -Micro Service Architecture, while still residing within the guardrails established for the Enterprise.

It should also be borne in mind that governance is not about developing a set of governance requirements, but rather the process and approach to apply them. Following the agile principles, governance should become an ongoing activity performed by the Architects working side-by-side with implementation teams.

The MSA will be, by definition a subset of the overall Enterprise Architecture. In order to allow for efficient development of MSA / cloud services, the individual development teams must have the freedom to select the optimum technologies and methodologies to speed their development and deployment cycles, which will change as a function of time, if nothing else.

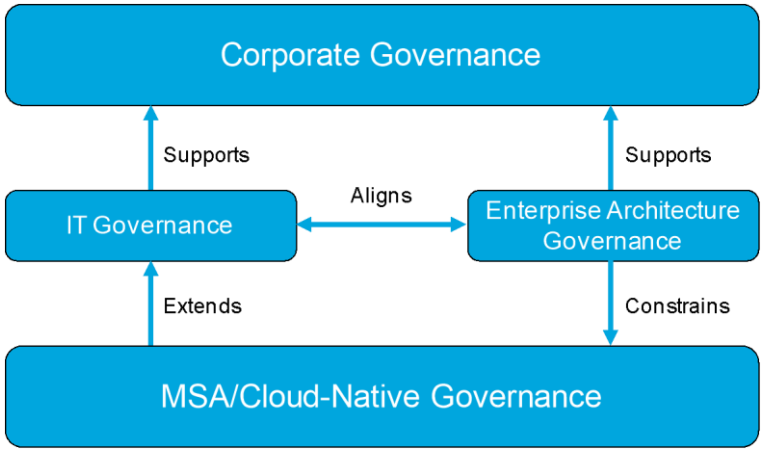
At the same time, these **teams must still adhere to the overall governance rules established by the Enterprise Architects,** or explicitly ask for a waiver allowing them to take exception to one or more of these rules. Failure to adhere to the rules established by the Enterprise Architects runs the risk of institutionalizing technological chaos and instability.

It may not be appropriate to undertake the detailed development of governance rules and procedures as part of the Preliminary Phase. It could be better to confirm the architecture governance procedures, and to commission a separate project to define implementation and operational governance procedures before implementation starts.

For MSA governance, although we are not prescribing a DevOps methodology, a distributed and rapidly changing set of microservices will require the following kinds of governance tools :

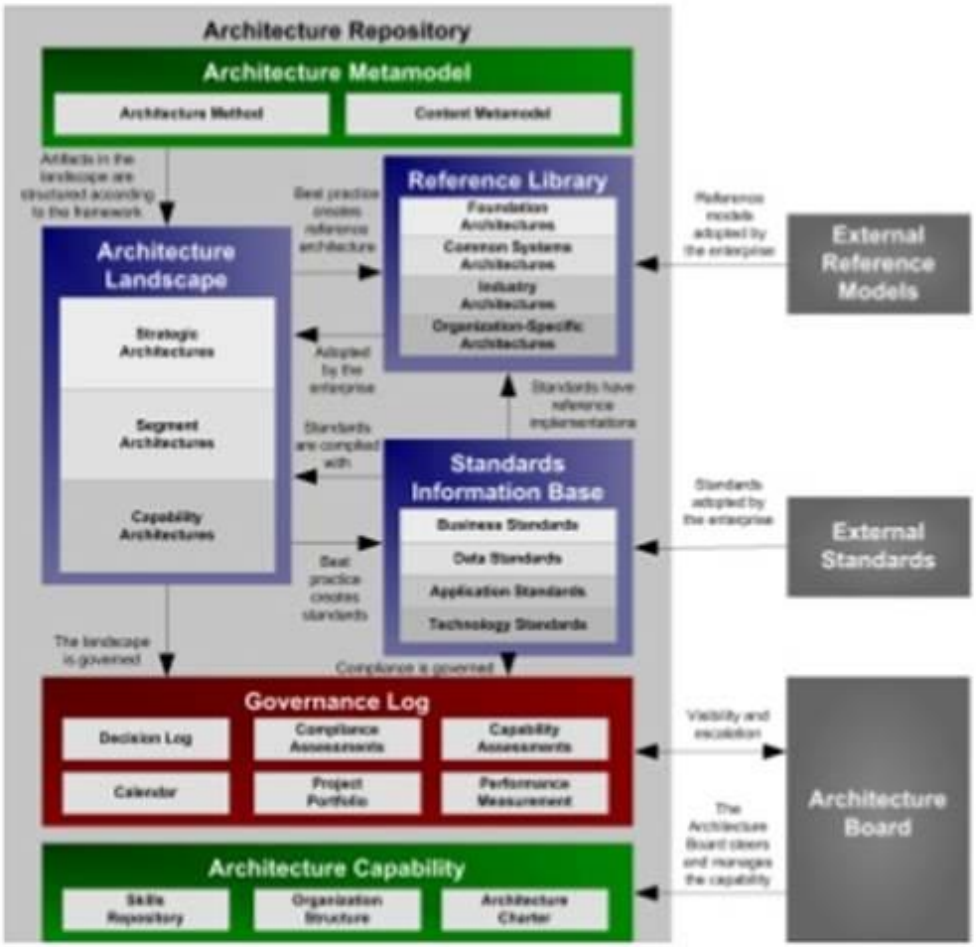
- Appropriate levels of review prior to any change releases (e.g., "two sets of eyes" methodology)
- Least privilege concepts applied to protect production pipelines
- Robust change monitoring

- High levels of automation – both of monitoring functions and testing

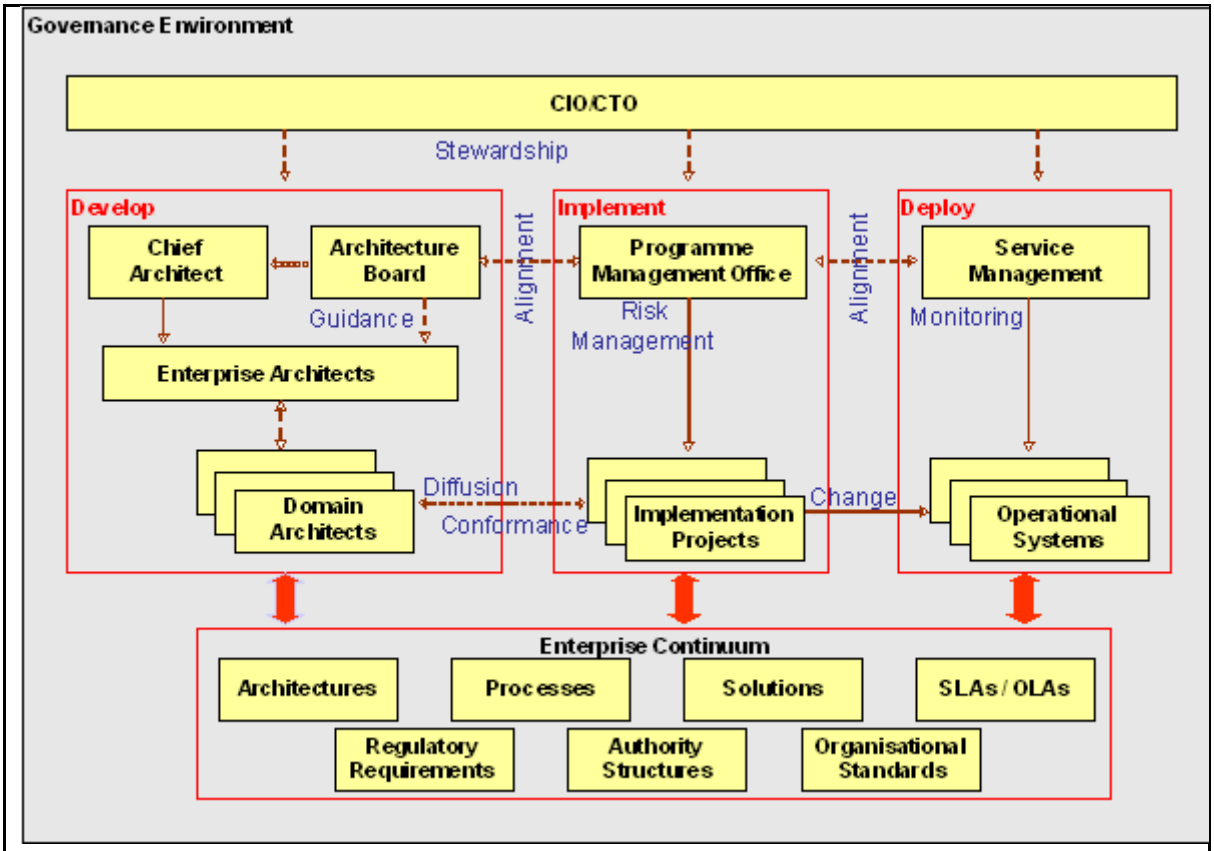


(From TOGAF 10 documentation, Relevant for TOGAF 9.2 also)

Architecture Repository



A place where all architectural assets are stored and found



What is set up and pre-populated now includes :

Architecture Repository : What all and Where to store (Schema ?)

Enterprise Continuum – How to Retrieve only what is needed (Schema ?)

Nice to Know Box

Enterprise Continuum

The TOGAF Standard includes the concept of the Enterprise Continuum, which sets the broader context for an architect and explains how generic solutions can be leveraged and specialized in order to support the requirements of an individual organization.

The Enterprise Continuum is a categorization for assets held in the Enterprise Repositories that provides methods for classifying assets, including architecture and solution artifacts as they evolve from generic Foundation Architectures to Organization-Specific Architectures. The Enterprise Continuum comprises two complementary concepts: the Architecture Continuum and the Solutions Continuum.

The Enterprise Continuum categorizes architectural source material — both the contents of the organization's own enterprise repositories and the set of relevant, available reference models and standards in the industry.

Nice to Know Box

Architecture Repository

Supporting the Enterprise Continuum is the concept of an Architecture Repository which can be used to store different classes of architectural output at different levels of abstraction, created by the ADM. In this way, the TOGAF Standard facilitates understanding and co-operation between stakeholders and practitioners at different levels.

The Architect would seek to re-use as much as possible from the Architecture Repository that was relevant to the project in hand. (In addition to the collection of architecture source material, the Repository would also contain architecture development work-in-progress.)

By means of the Enterprise Continuum and Architecture Repository, architects are encouraged to leverage all other relevant architectural resources and assets in developing an Organization-Specific Architecture.

The Enterprise's Architecture Repository contains a collection of models, patterns, architecture descriptions, and other artifacts that are available for the development of its architectures.

They may result from previous architecture work in the enterprise or from work in other enterprises, or in industry bodies. The TOGAF Preliminary Phase includes the establishment of an Architecture Repository with an initial collection of material.

Nice to Know Box

Architecture Repository and the MSA Reference Architecture

The Architecture Repository may contain numerous artifacts that are outside the scope of the MSA – Micro Services Architecture. For this layer, the primary artifacts of interest to the team are those which identify microservices that have already been developed, the provenance of those services, and how to interact with them.

Although service repositories have largely been proven as ineffective in the past, solutions exist to provide for this sort of microservice discovery and prevent duplication of effort. Microservices are reachable only through a published API, which nowadays is typically managed through an API management framework, which encompasses both service meshes and API gateways. This is evolving with work such as the OpenAPI Specifications (OAS).

(From TOGAF 10 documentation, Relevant for TOGAF 9.2 also)

From **Case Study** : **Get Commitment**

of all **highest-Level Stakeholders** to EA first, for the Movement

Nice to Know Box

Informal Commitment of Top Management and Top rung of each department

Got the Commitment that they will coordinate with us till the target is achieved; A commitment for long Term involvement. Got it from all CxOs, VPs, department heads.

Quiz Time 1

Who could be the highest-level Stakeholders for the EA Project, which is not really a project but a Long Term Strategic Goal ? (EA Theme of Long Term Strategy)

CxO, Board of Directors, Vice Presidents, …

Same as Sponsor ?

No. Sponsor is boss of Chief EA. Like a CEO

Same as Governance Board ?

No. Board is not a stakeholder, but an oversight Body

From **Case Study** : **Define and Establish Enterprise Architecture Team and Organization**

Nice to Know Box

EA Department : Key roles; responsibilities, skill set : Examined and fixed

You at the top Tier as Chief Enterprise Architect, next Tier of Senior EA and the third tier of EAs. The Last Tier will comprise of Segment Architects, drawn from four Domains : Business Architecture, Application Architecture, Data (Information) Architecture and Technology (Infrastructure) Architecture.

You referred to : Chapter 46 of TOGAF documentation for skill set for Job Description. Since EA is still a nascent activity in most companies, you may not get the exact skills in people to be recruited by your HR efforts. But you will strive to get close to it.

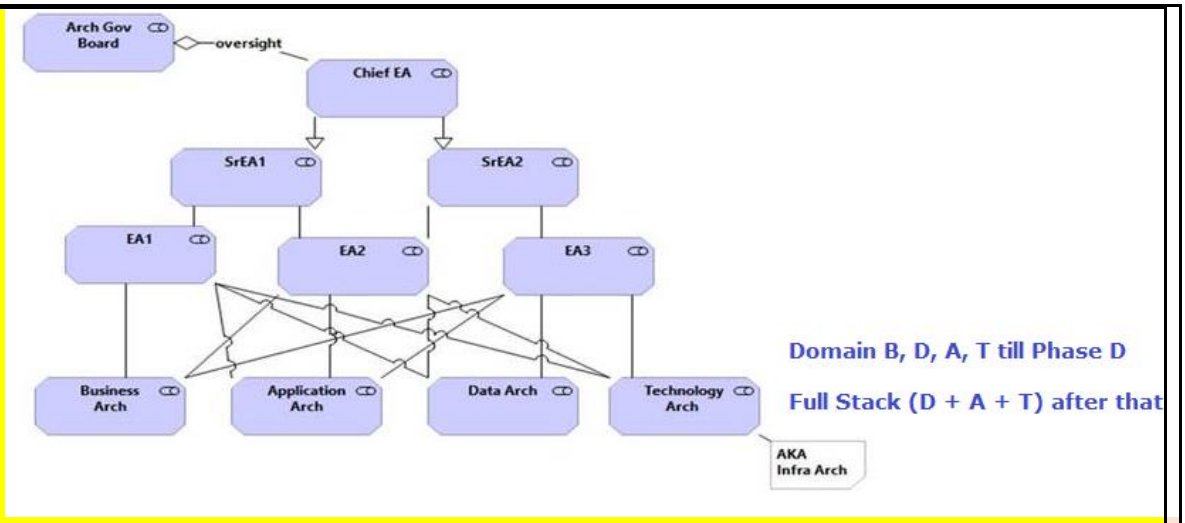
Chief EA forms the Team, if not already formed

Allocate key roles and responsibilities for Enterprise Architecture Capability management and Governance

What appears below is just a sample. You will do likewise for your Enterprise as this step in Preliminary Phase, a phase that is for long term Movement.

Note that this is not just an architectures team for one project.

Sample EA department



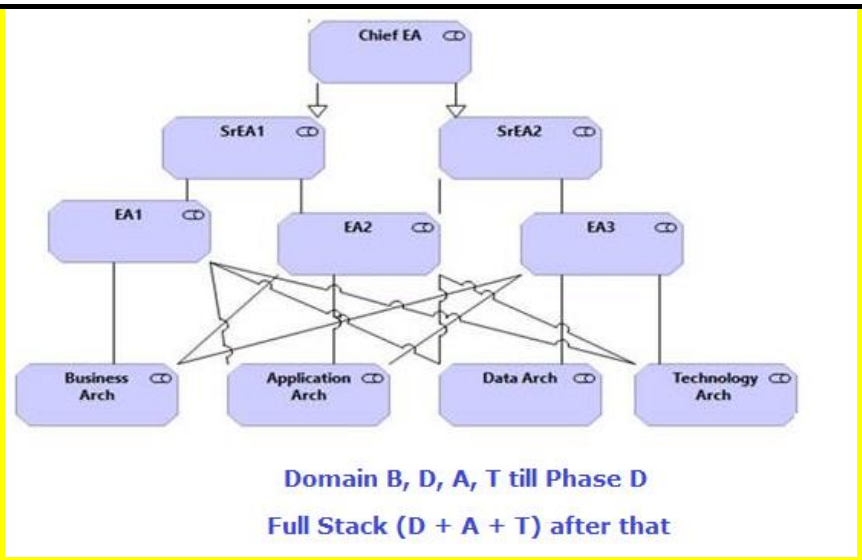
Those who are keen on appreciating TOGAF to its true form are requested to halt here and take notice :

TOGAF is TOP-DOWN approach to Architecture.

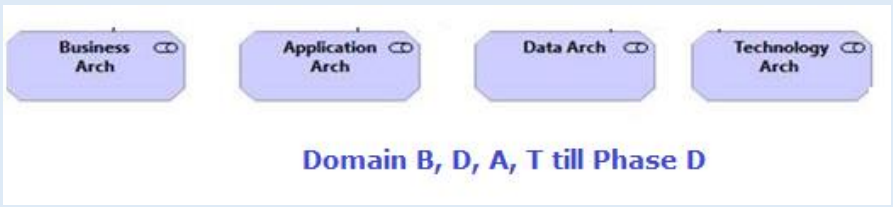
The Course and the subject are meant for those who are ALREADY ARCHITECTS and those who are aiming to CLIMB the LADDER of CAREER VALUE

You sure may not be at the top of this Hierarchy shown below. But you do have patience to understand it from various levels and appreciate it.

In case your current role or position is somewhere in this hierarchy tree, that is **good enough**. Your patience in learning this course will reward you as we move from Phase to Phase



Those in only one aspect of Architecture in



B (Business), or

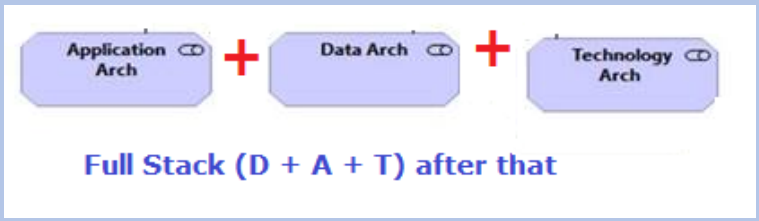
D (Data), or

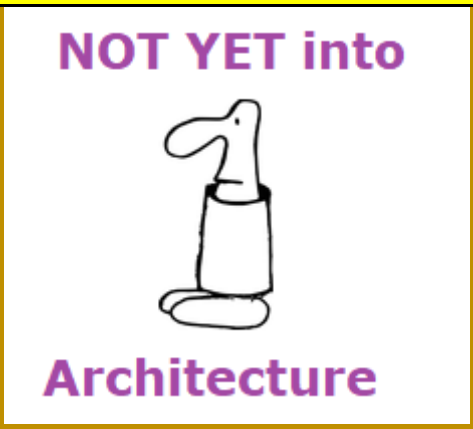
A (Application), or

T (Technology – Infrastructure)

can focus more on Phase B, C and D of ADM and appreciate their own role vis a vis others.

Those in above style of Architecture will also strive to become Full Stack Solution Architect in order to fit themselves in modern IT and Software roles. This focus will appear only in Phase E of ADM. Please wait till then.





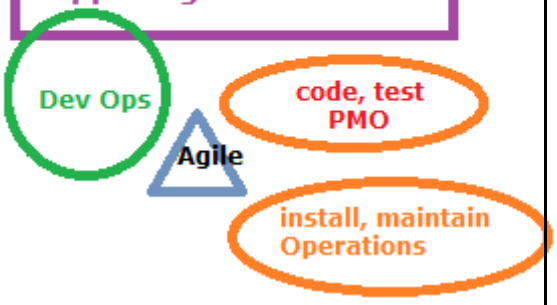
Those who have only development experience must gear up to learn every aspect of TOGAF with greater focus and good efforts, since the course is not having them in its pre-requisite criterion.

My Destination -

Those with Managerial outlook, a craving for rising up in their Architectural role will be the best lot who will appreciate every Phase and every Module of this course

Prepared a Responsibility Schema, for EA related roles

Only Oversight, and resolution in case of Disputes, Crisis ..	Arch Gov Board **All Phases, All activities** **Change approvals in Phase H**
Direct involvment in Preliminary Phase	Chief EA **Preliminary Phase**
Vision for Three Years	Chief EA **Strategic part of Phase A**

Vision for current year Portfolios	Sr EA **Segment part of Phase A**
HLD, as ABBs	Respective B D A T Segment Architects **Phases B, C, D**
LLDs prepared as SBBs with due Integration	EA with D A T FullStack Expertise, deputing some work to Segment Architects **Phase E**
Consolidating from Managerial outlook	Sr EA **Phase F**
Oversight Control and On-demand Consultancy rendered to all downstream (post-Arch) activities	EA Team oversight over following Outside Arch happenings  **Phase G**

Nice to Know Box :

Within an Enterprise, the hierarchy of principles starts with the Enterprise Principles.

Enterprise Principles provide a basis for decision-making throughout an Enterprise, and inform how the organization sets about fulfilling its mission.

Such Principles are commonly found as a means of harmonizing decision-making across an organization

Architecture Principles are a set of principles that relate to architecture work

They reflect a level of consensus across the Enterprise and embody the spirit and thinking of existing Enterprise Principles. Architecture Principles govern the architecture process, affecting the development, maintenance, and use of the Enterprise Architecture.

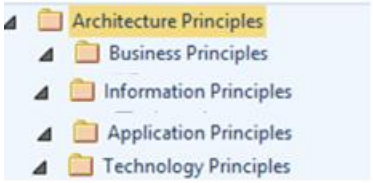
Architecture Principles may restate other enterprise guidance in terms and form that effectively guide architecture development.

Architecture Principles define the underlying general rules and guidelines for the use and deployment of all resources and assets across the enterprise. They reflect a level of consensus among the various elements of the enterprise and form the basis for making future architecture decisions.

Each Architecture Principle should be clearly related back to the business objectives and key architecture drivers.

Within the broad domain of Enterprise Principles, it is common to have subsidiary principles within a business or organizational unit.

This may go beyond the common classification of :



For example, it may extend to principles specific to IT, HR, domestic operations, or overseas operations. These principles provide a basis for decision-making within the subsidiary domain and will inform architecture development within the domain. Care must be taken to ensure that the principles used to inform architecture development align to the organizational context of the Architecture Capability.

(From TOGAF 10 documentation, Relevant for TOGAF 9.2 also)

From Case Study : **Identify and Establish Architecture Principles**

Nice to Know Box

Architectural Principles : To be followed by entire EA initiative and by all connected with it - are finalized; Expected to stay put and can at best be validated for individual projects

Quick Samples :

Architectural Principle

Build to change instead of building to last. Changes in Technological and Business environment are too rapid and so every attempt at adding Architectural Capability must have openness to accept changes easily.

Architecture Principles apply to the complete sphere of Architecture in an Enterprise. You may find them to be applicable to all the four Sub-sets of Architecture Principles, namely business Principles, Application Principles, Data Principles and Technology (Infrastructure) Principles

Business Principle

Compliance with Law : Which means : Enterprise information management processes **comply with all relevant laws, policies, and regulations**. This boils down to strict compliance, avoidance of pirated materials, protection of Intellectual Property and so on

Business Principles may appear to be similar to Architecture Principles. However note the subtle difference, since they are more domain specific to the extent that not all segments of Architecture (B D A T) will need them.

Application Principle:

Interoperability, through state-of-art standards and practices will be at back of every possible decision

While Interoperability will apply to almost all application areas, modern practices may give rise to other Application Principles such as :
Delink Data services from Application services so that they highly loose-coupled (Use Message Brokers between Application services and Data services)

Data Principle

Data belongs to the Enterprise. Not to any one project or team. Data is an asset that has value to **the** organization and is managed accordingly. Each data element has a definition and trustee accountable for data quality, the Trustee being the Data Architecture Organization, which comes under EA organization. Data Analytics and BI functions will be encouraged to benefit the business decisions and long-term forecast, apart from day-today operational decisions.

While Data ownership. Data Trusteeship and Data Stewardship will apply to almost all application areas, modern practices may give rise to other Data Principles such as

Delink Querying of Data services from the higher priority service of Data persistence in a Transaction data store Use Message Brokers between Application services and Data services and go for CQRS – Command Query Responsibility Separation)

Technology Principle:

Technological diversity is controlled to minimize the cost of maintaining expertise in and connectivity between multiple processing environments. Moving to neutral technology components free of vendor lock-in are encouraged. Even Cloud deployments must be **as inter-operable and portable** to the extent possible. We follow **Open standards software** to the extent it is possible unless we have strong case and need to buy out something proprietary to support our business.

While Controlled diversity will apply to almost all infrastructure areas, modern practices may give rise to other Technology Principles such as

De-risk execution time risks by going for multi-cloud and such other initiatives which avoid single point of failure or single vendor dependence.

Incident Management and Security protection are given higher priority over any other technical details in areas where they are crucial and critical.

Complete the Principle :

Modular approach in Data and Application

Emerging Technology adoption after due study

Compliance and Ethics follow everywhere

Globally affecting decisions - Pre-check with Governance

Principles : Must be followed in moving towards the Goal

Goals, are the things an tion hopes to achieve s time in operation and purpose of forming the tion	
re events or conditions ivate an Enterprise to some aspect of its goals sequently its objectives, ntially business activities ical solutions.	

GOAL : To move from legacy to modern systems

To Establish the Architecture Capability (Ultimate GOAL) :

Where will be in .. years ? Through what Architecture Strategy ?

set a Capability Maturity Target over ... Years

GOAL is same as Architecture Initiative, that is to be kept up for a Strategic period of xx years. Thereafter Preliminary Phase can be revisited to redefine the GOAL

The work in this Strategic period carries a generic name in TOGAF as **EA Project**

Drivers are some influencing factors which can build the context for the team in Enterprise Architecture, especially on the design decisions taken and how it does evolve the architecture.

From **Case Study** : **Status of Architecture Footprint**

Nice to Know Box

We need to determine the Architecture Capability as of now :

Where are we now ?

This assessment consists of six maturity levels .

Level 0 : No Maturity

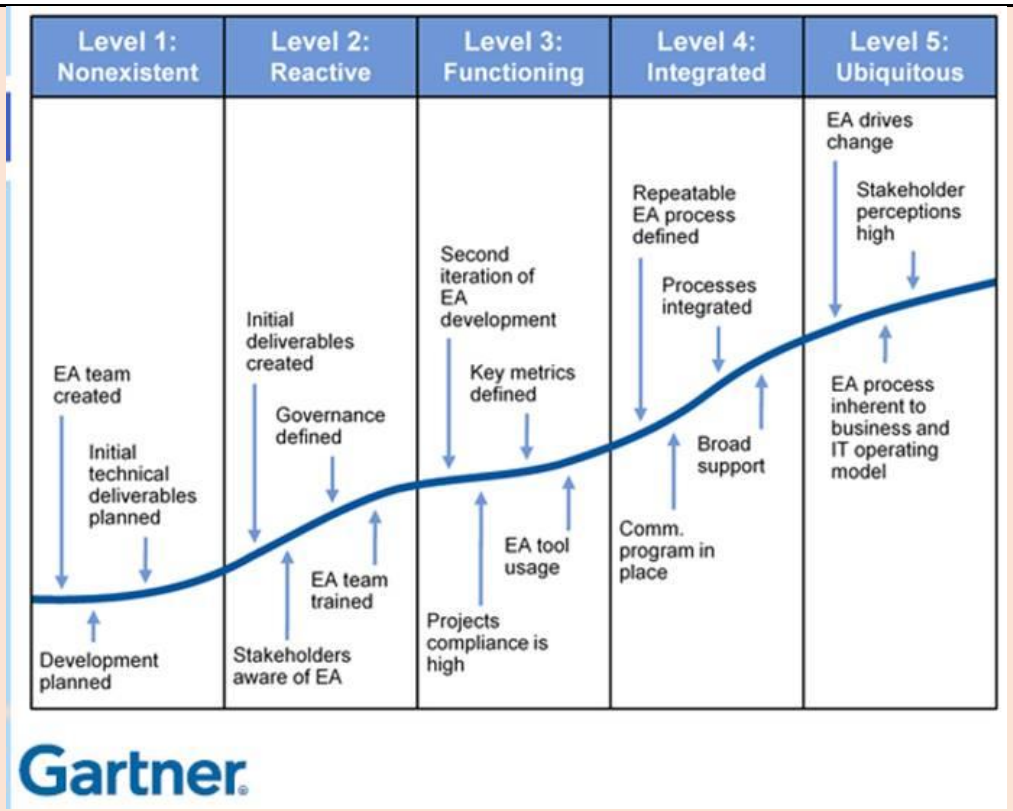
Level 1 : Initial : Non-Existent

Level 2 : Under Development : Reactive

Level 3 : Defined (at least properly documented process for Architecture) : Functioning

Level 4 : Managed (Moving in right path) : Integrated

Level 5 : Measured (Optimized Architectural process and continuous improvements towards perfection) : Ubiquitous



Establish the e-Commerce Initiative with best of the breed Architecture. We will be ahead of the competition in most, if not all of the counts which are standard measures of success and quality centric service to Customer.

You assessed Architecture Capability Maturity that it is somewhere between Level 0 and Level 1 right now.

You resolved to raise it to Level 2 in the very first year of your leadership. Your strategic long-term goal is to reach Level 3 to Level 5 well within three years.

To raise it to Level X in the very first year and strategic long-term goal is to reach Level y to Level z well within qqq years.

Drivers may be internal, in which case they are usually associated with a stakeholder, and are often called "concerns".

Internal drivers :

Customer satisfaction and Profitability.

Will be moving all existing legacy and brown field systems also into modern day systems and integrate them well with green field systems which keep coming up.

External drivers :

Cultural or Social - Fully stay in tune with all legal Social Media platforms and enable Customers and Extended Enterprise Partners to use them for business purposes in a safe and secure manner

Nice to Know Box

Note that these two may get elaborated at project level later in another ADM Phase. Right now, we are looking at overall Goals for the multi-year Architectural Movement and what is needed to drive us towards the goal.

Quiz Time

Principles, Why ?

Goals, Why ?

Drivers, What ?

Provide Context for Architecture Work

From **Case Study** : **Other than Principles Catalog (Artifact) of this Phase, a Document deliverable is discussed now.**

Nice to Know Box

Request for Architecture work : drafted; sent up for consideration by Sponsor and Architectured Governance Board – issued as Requirement for Architecture work

You will draft a Request for Architecture Work (also referred to as Requirements for Architecture Work after it is formally issued by the Sponsor CEO).

This document will be drafted by you, but will be formally issued by the sponsor. The CEO naturally will have it vetted by the Architecture Board before formally issuing it.

Request for Architecture Work includes :

- Organization sponsors – CEO and your Role as Chief EA
- Organization's mission statement – defines the company's business, its objectives and its approach to reach those objectives, as seen on top of this Case Study document
- Business goals (and changes) - filling up a large gap in the existing e-Commerce ecosphere where many services, and some goods segments are yet to exploit the full potential of e-Commerce
- Strategic plans of the business - USP - Unique Selling Propositions : such as no questions asked return and refund policy to the largest possible extent
- Time limits – Three-year span for this Preliminary Phase to reach the Initiative
- Changes in the business environment – Store Commerce to e-Commerce, high degree of automation
- Organizational constraints – People, Process, Planning strength needs enhancement
- Budget information, financial constraints- xxx yyy
- External constraints, business constraints – zzz like Government Regulations ...
- Current business system description - presence in many fields including physical stores in many areas of merchandise – Detailed as ....
- Current architecture/IT system description – Limitations as shown above under Architecture Footprint
- Description of developing organization – Long term and near term Goals, Drivers
- Description of resources available to developing organization – Governance, EA Team, PMO, Operations Department, where needed Agile and DevOps, LOB training

From **Case Study** : Tailor TOGAF and, if any, Other Selected Architecture Framework(s)

Nice to Know Box

TOGAF is **NEVER used exactly as per the official 9.2 documentation**

It is tailored – meaning adopted and customized – to suit the Enterprise and its practices

See Module 8 for details

Nice to Know Box

TOGAF is **NOT A TOOL.**

It is a FRAMEWORK

The Enterprise Architects team is supposed to find and select the appropriate Tool which they want to use

Implement Architecture Tools

Can be Software Tools for creating Artifacts :
Excel, SA Modeling Tools, EA Modelling Tools

Can be Soft Tools : Online Training, xxx Workshops, …

Select and implement supporting tools

- To select and implement supporting tools and other infrastructure to support the architecture activity

selection of ? ? ?

To select and implement supporting tools and other infrastructure

For Enterprise Level Modelling	Archi archimate modelling	ARCHIMATE® The Open Group Open Certified ArchiMate® 2 Tool	ABACUS avolution

Solution and Project Modelling		Or any other

Tools help Architects produce Building Blocks

Building Blocks, when implemented as executables and deployed solutions, **improve Architectural Capability**

In Preliminary Phase, they should select

a. Where needed an Enterprise Modelling Tool, in support of the ArchiMate standard

   For example :

   https://www.archimatetool.com/

b. Where further needed, any suitable UML modelling tool

   For example :

   https://staruml.io/

c. Appropriate Tool to document the Architectural outputs in the way suggested by TOGAF

Visit Links on such type of TOGAF supporting Tools

https://store.modelio.org/resource/modules/togaf-architect-open-source.html

Module TOGAF Architect (open source) for Modelio

TOGAF Architect is an open source Modelio module that supports TOGAF modelling, based on BPMN, UML2 and the EAP extensions. It also supports TOGAF matrixes generation and TOGAF Catalog Generation.

Modelio TOGAF Architect has been used to realize the Togaf-Modeling.org examples

You need first to download Modelio (open source) and then the TOGAF Architect module that you can apply to new Modelio projects.

Other Commercial Products :

https://www.visual-paradigm.com/features/togaf-adm-software/

https://www.avolutionsoftware.com/abacus/frameworks/togaf/

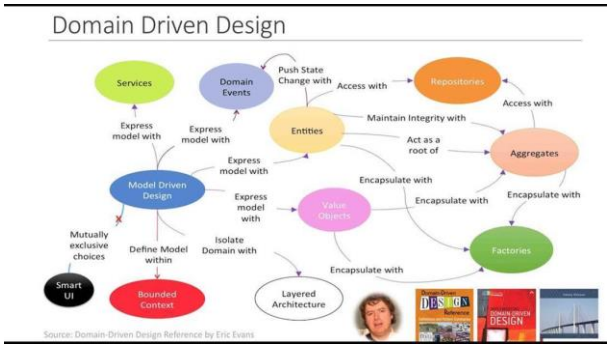
https://sparxsystems.com/products/mdg/tech/togaf/index.html

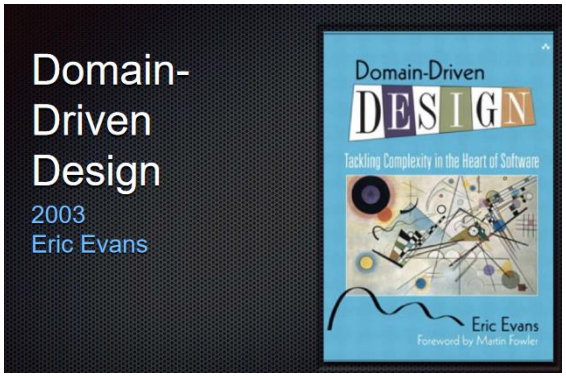
Or this comprehensive Tool :

:

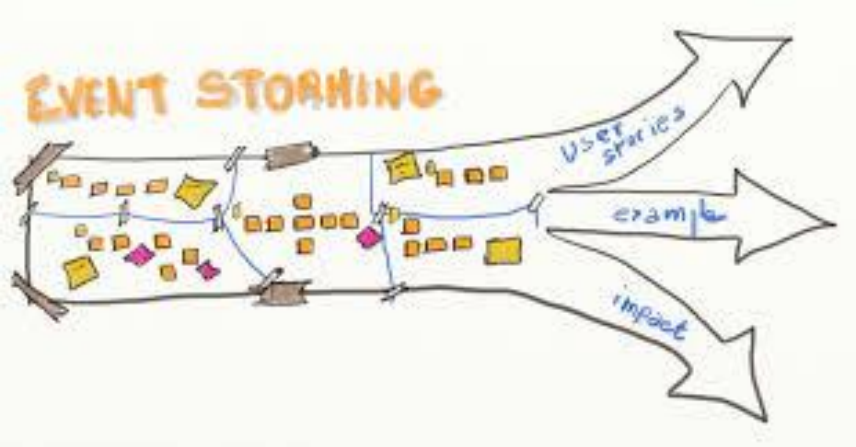
http://www.sparxsystems.com/products/ea/

Soft Tools : Like DDD :





Soft Tools : Like In DDD : Event Storming

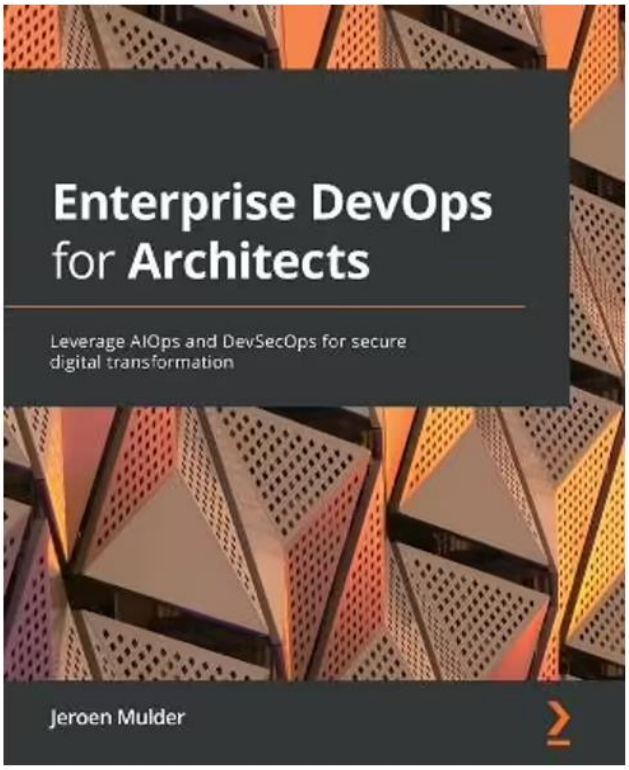


Software Platform Tools, likely to be used :

Like : K8s, Kafka, …

Like : Data Centric Tools : Cassandra,..

Like Agile / DevOps Mechanisms to be followed :



(EA Can add more later)

Nice to Know Box

Issues in Tools Standardization

In the current state of the tools market, many enterprises developing Enterprise Architectures struggle with the issue of standardizing on tools, whether they seek a single "one size fits all" tool or a multi-tool suite for modelling architectures and generating the different architecture views required.

There are ostensible advantages associated with selecting a single tool. Organizations following such a policy can hope to realize benefits such as reduced training, shared licenses, quantity discounts, maintenance, and easier data interchange.

However, there are also reasons for refusing to identify a single mandated tool, including reasons of principle (endorsing a single architecture tool would not encourage competitive commercial innovation or the development of advanced tool capability); and the fact that a single tool would not accommodate a variety of architecture development "maturity levels" and specific needs across an enterprise.

Successful Enterprise Architecture teams are often those that harmonize their architecture tools with their architecture maturity level, team/organizational capabilities, and objectives or focus. If different organizations within an enterprise are at different architecture maturity levels and have different objectives or focus (e.g., Enterprise versus Business versus Technology Architecture), it becomes very difficult for one tool to satisfy all organizations' needs.

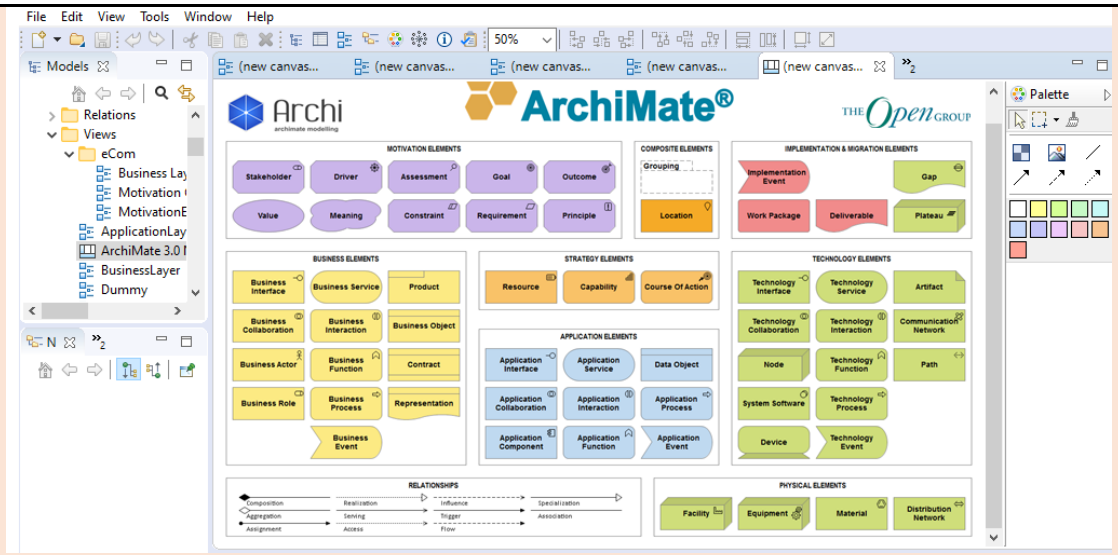
(From TOGAF 10 documentation, Relevant for TOGAF 9.2 also)

From **Case Study** : **Implement Architecture Tools**

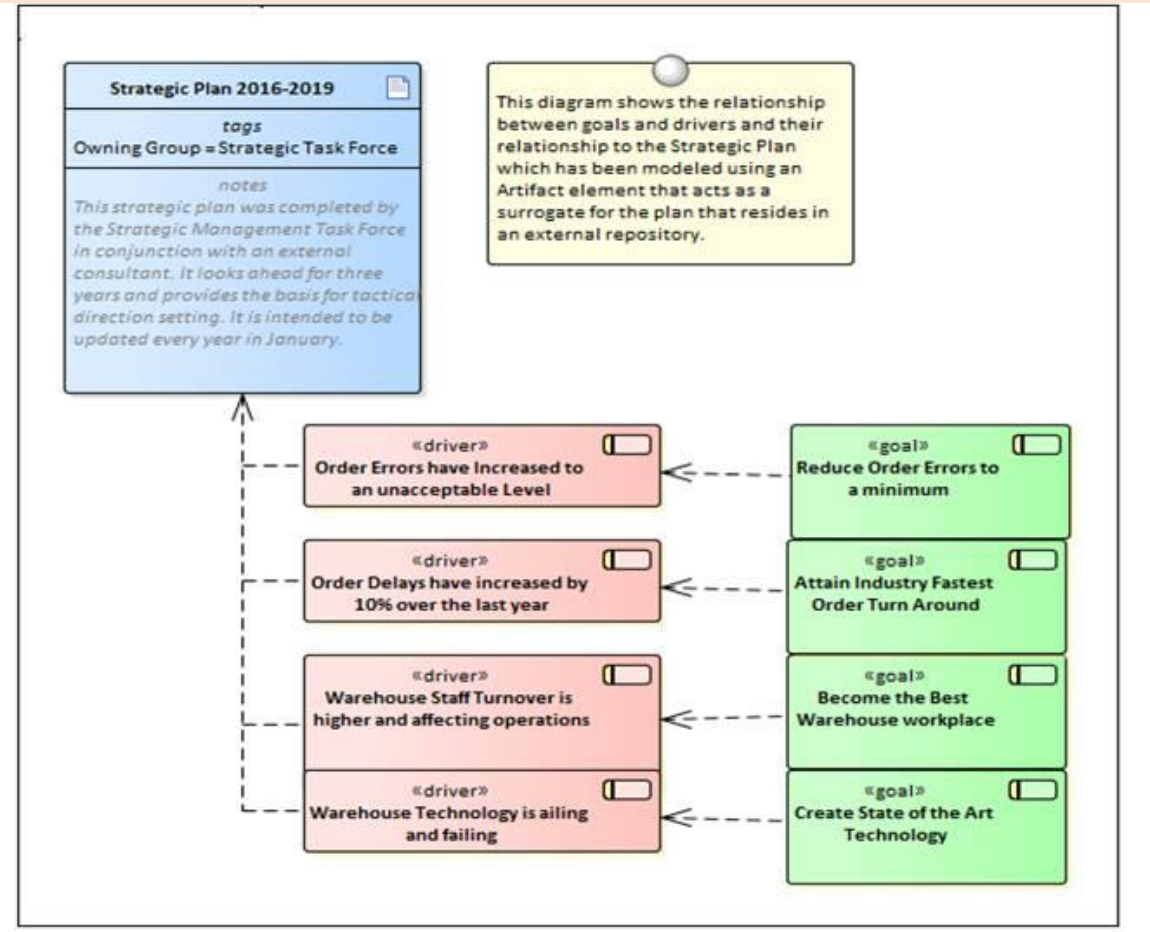
Modelling Tools :

Tools to be used over the years for Architectural work : Initial decisions; Guidelines on what and when

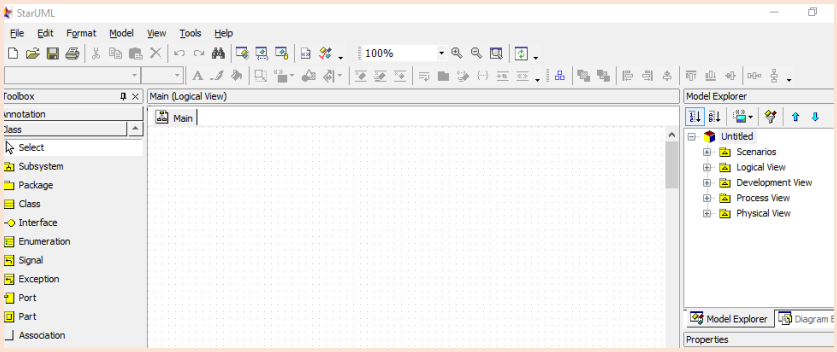
Public domain Tools : Star UML and Archi would be combined and leveraged to produce Architectural documentation. All textual documentation will be produced by Office Suite of tools.



Sample of a Diagram drawn using Archi – ArchiMate specification :

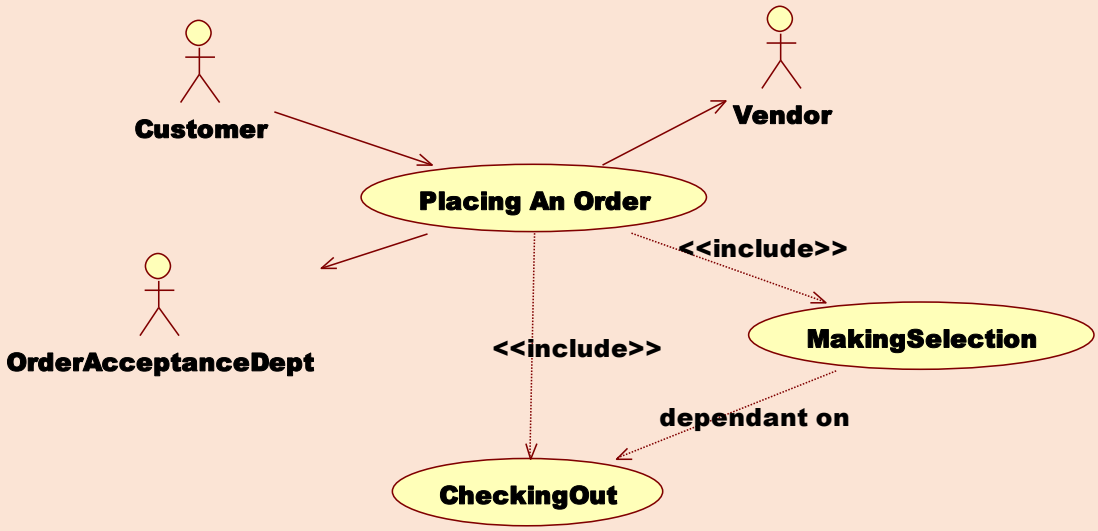


Since Segment Architecture will have to come up with UML based diagrams, you also made a study of all possible diagrams and made recommendations of the specific diagrams to be used as deliverables…

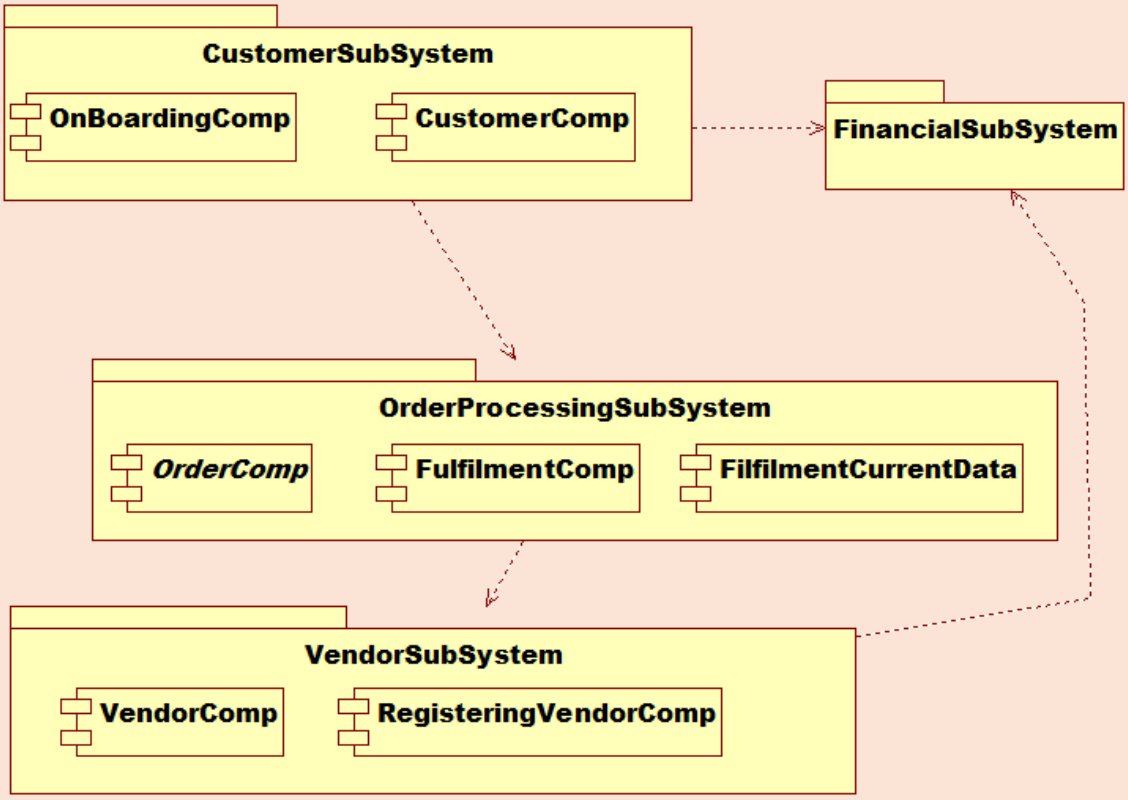


You also made a list of various Frameworks - Web Frameworks, Mobile and other UI Frameworks, Cross platform UI Frameworks, Server and Cloud side application Integration Frameworks including those involving Microservices, Data Architecture Frameworks including those for Data Warehousing, Cloud and Container hosting Frameworks and Cloud subscription services and so on.

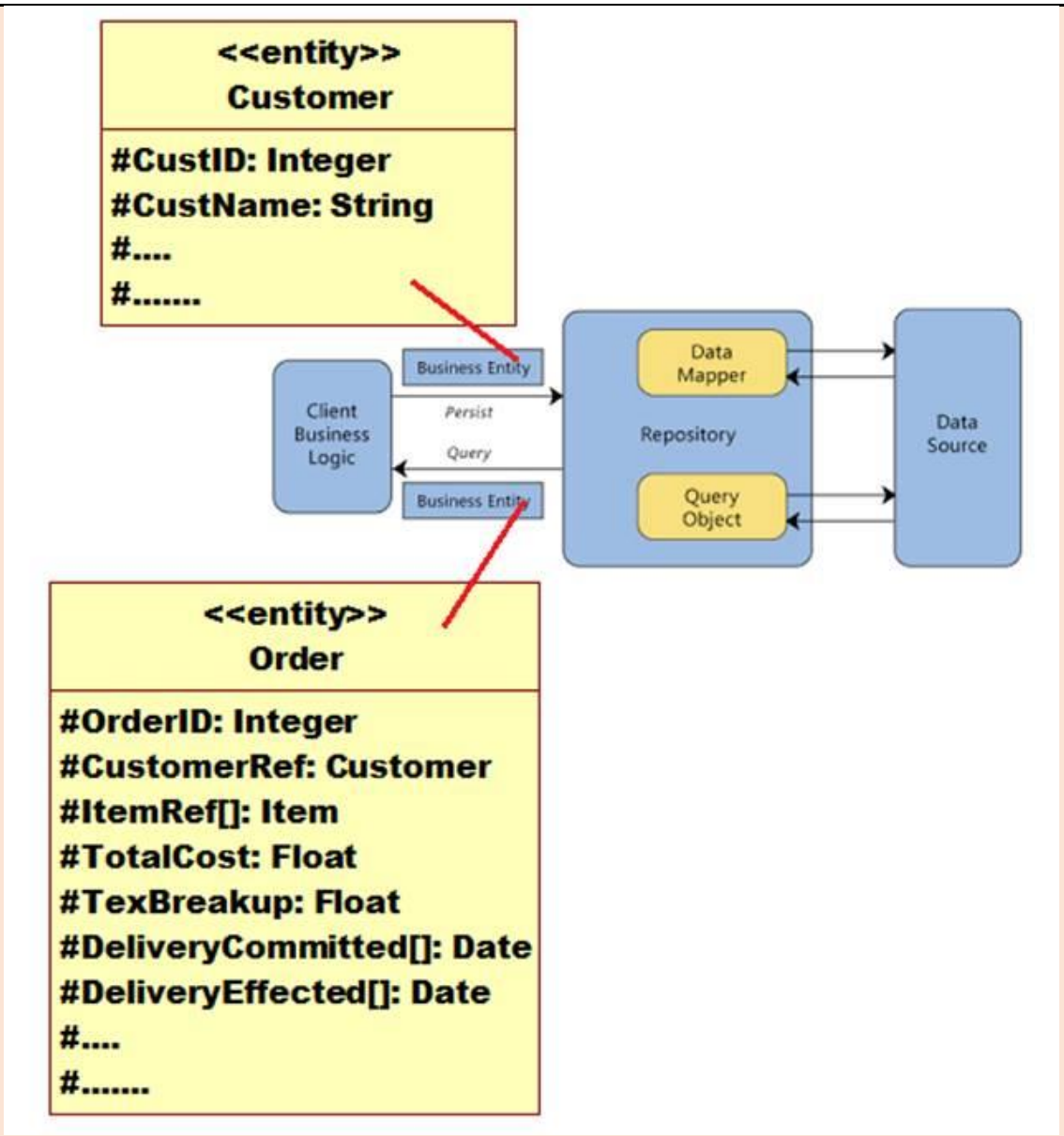
Sample of Diagrams drawn using Star UML or other Tools supporting Unified Modeling Language specification :



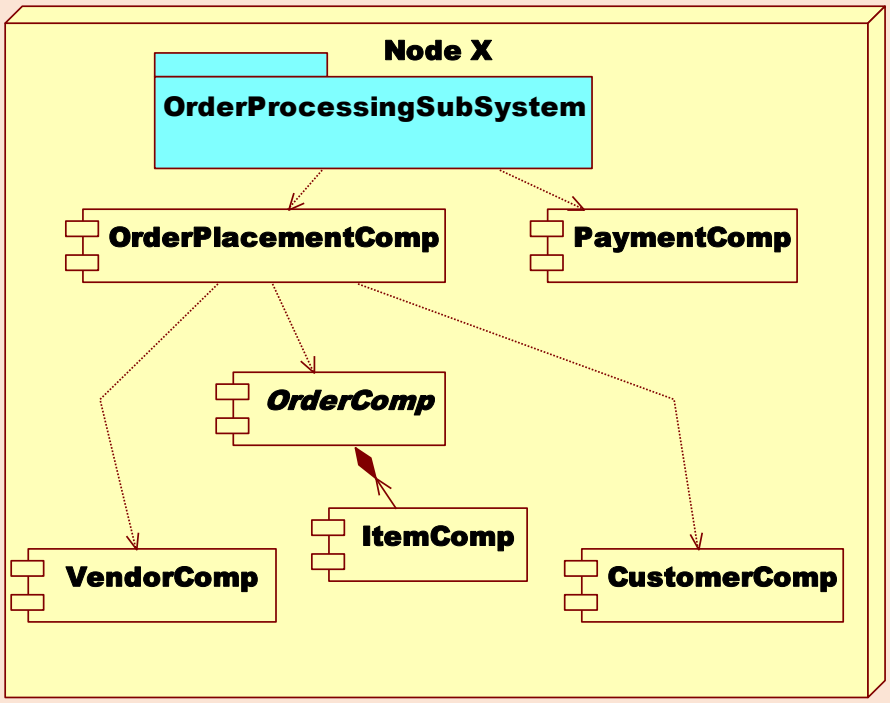
Simple Use Case Diagram



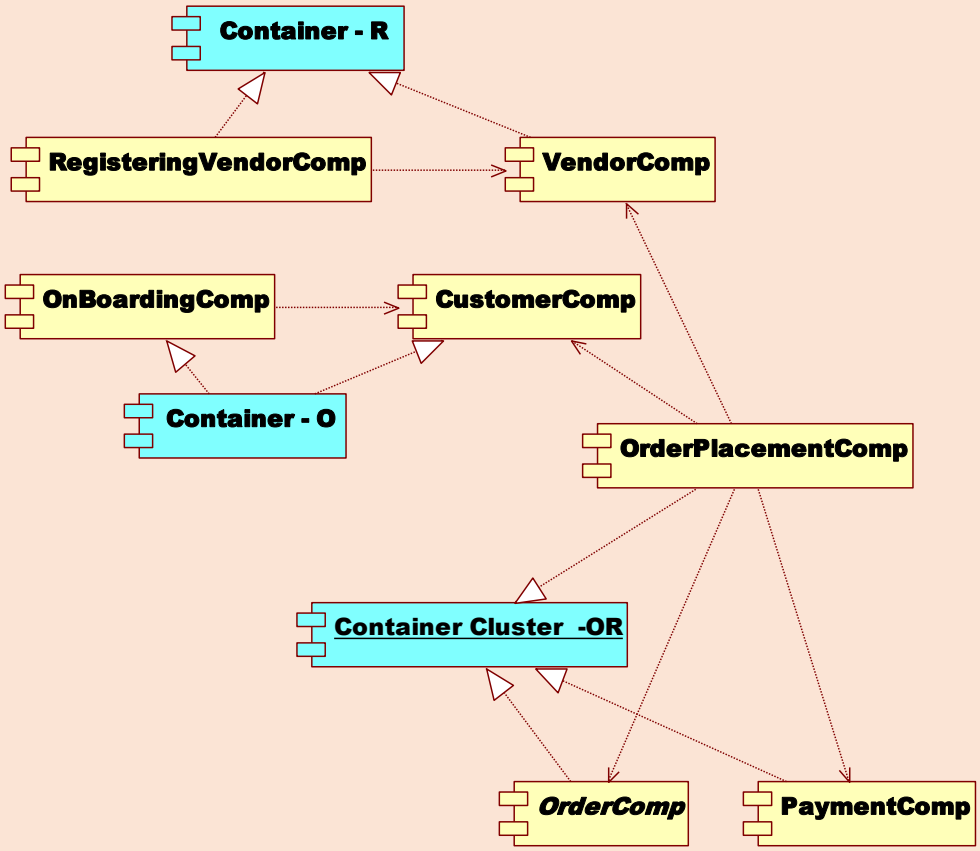
Application Level Component Diagram



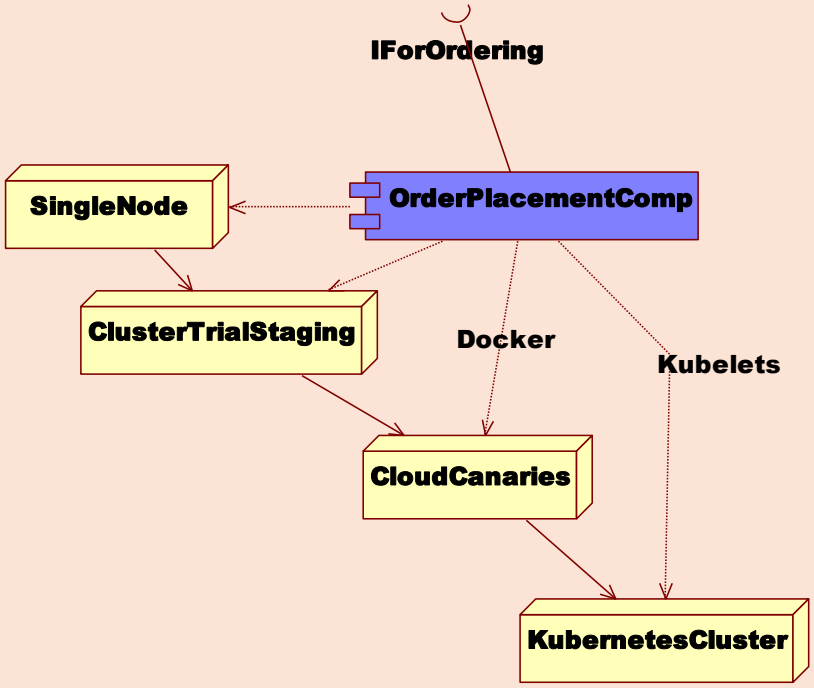
Data Architecture, progressing from Application Details



Node Level Deployment

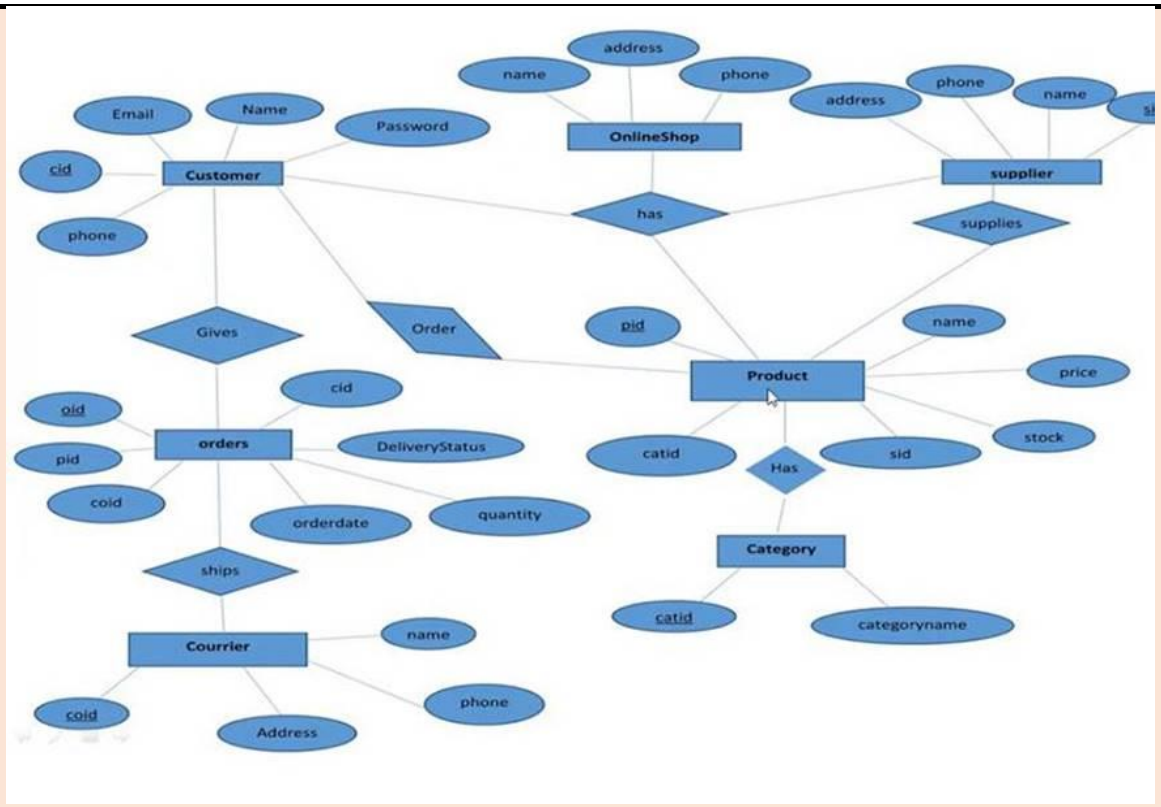


Deployment Level with Cloud Native Container – say Kubernetes Architecture

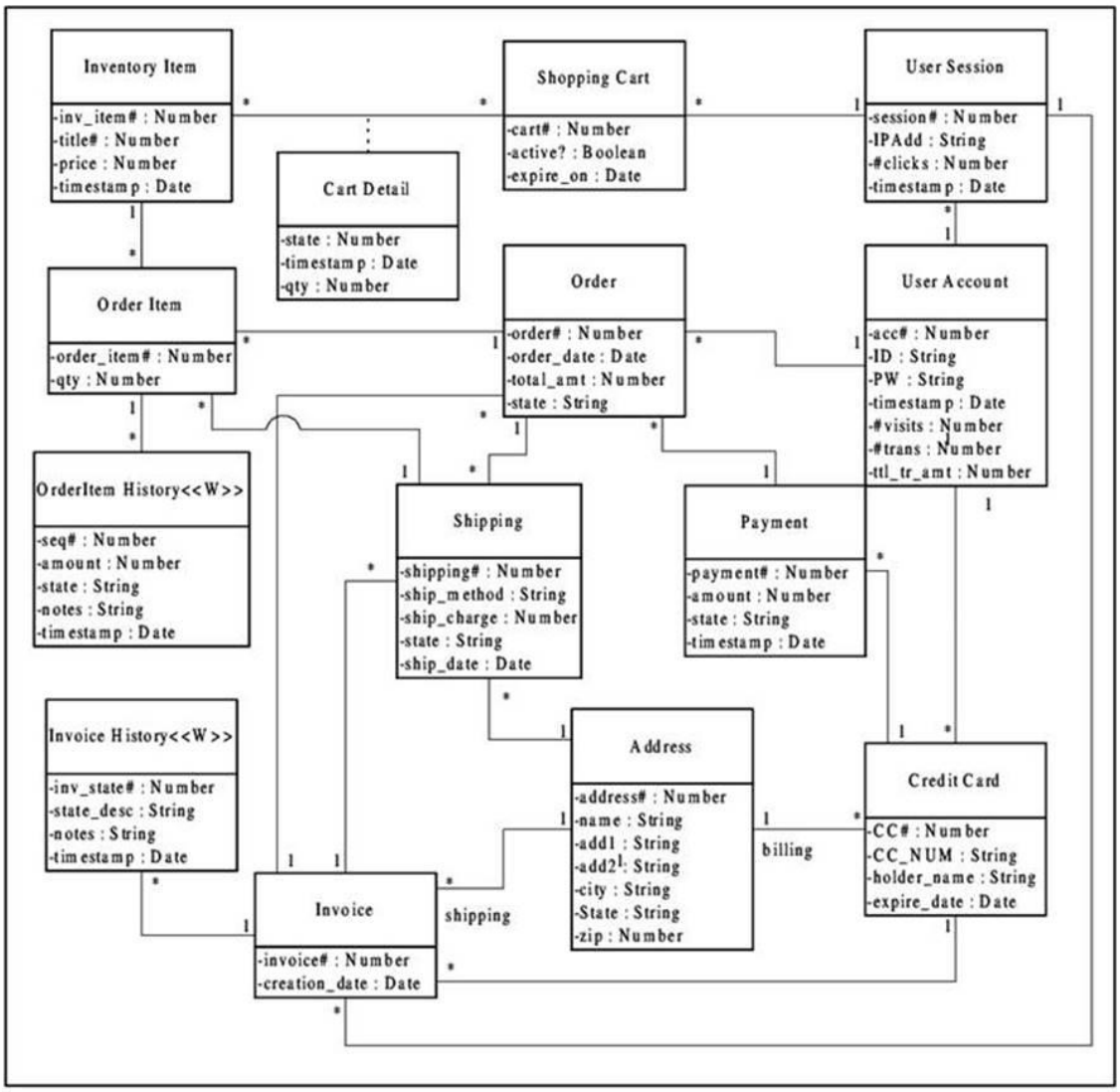


Dev Ops Level Progressive Deployment Model (Cd / CI)

Though not an UML Diagram, Logical Data Architecture Diagrams are supported by such Tools :



E & R Diagram at elemental level



The resulting Data View

From **Case Study** :

Nice to Know Box

Points of Essence : Within Steps of Preliminary Phase :

Study and understand the Organization, business lines, set up in IT and software as of now

Plan EA department, also suggest a higher Governance setup

Architecture Maturity Assessment, and set long term (3 year) Goals, plan Driving forces thereon

A long term (3 year ?) plan – Requirement of Architecture work

Architecture Principles, which all will understand, follow and meet are defined

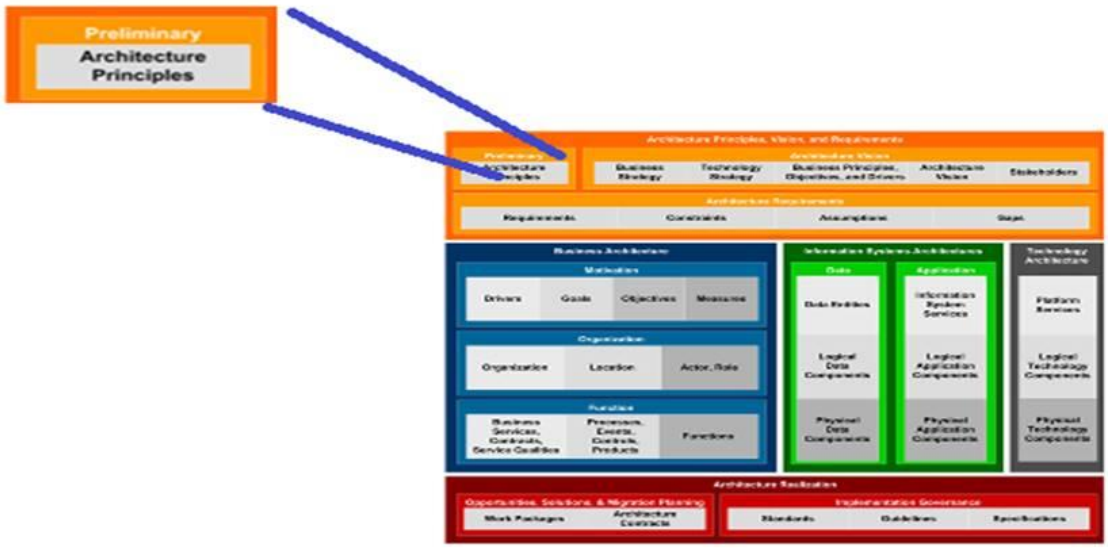
Get Commitment of Top Level Executives, by involving them

Decide on TOGAF path, including "Tailoring' as needed; Plan Tools and Techniques requirements

Artifact normally produced in Preliminary Phase …

Document produced in Preliminary Phase

TOGAF Framework tailored and stored in Architecture Repository



What you see is a Content Management Frame
A Schema of '**which Building Block comes under what category'**

Artifact / BB Produced in this Phase :

Principles Catalog

Document Produced in this Phase :

Request for Architecture Work

(Requirement for Architecture Work)

Nice to Know Box

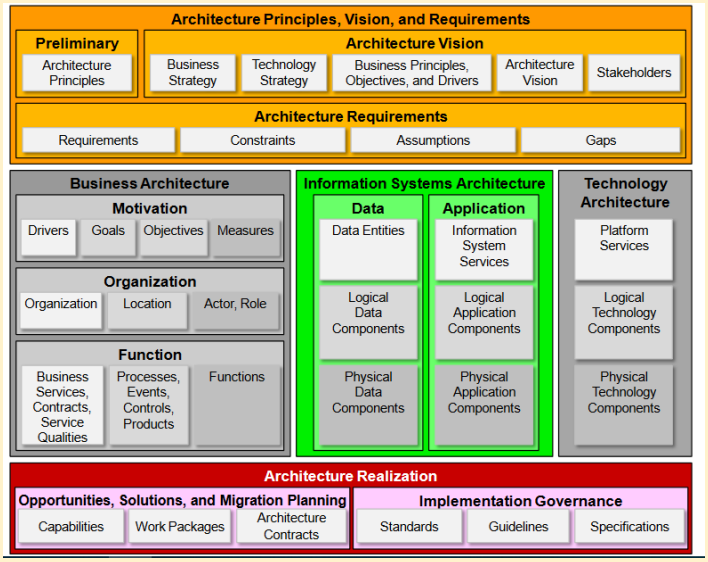
Principles Catalog

The Principles Catalog captures Principles of the Business and the Architecture Principles that describe what a "good" solution or Architecture should look like.

Principles are used to evaluate and agree an outcome for architectural decision points. Principles are also used as a tool to assist in Architectural Governance of change initiatives.

Pictorial Quiz

What is this ? - >



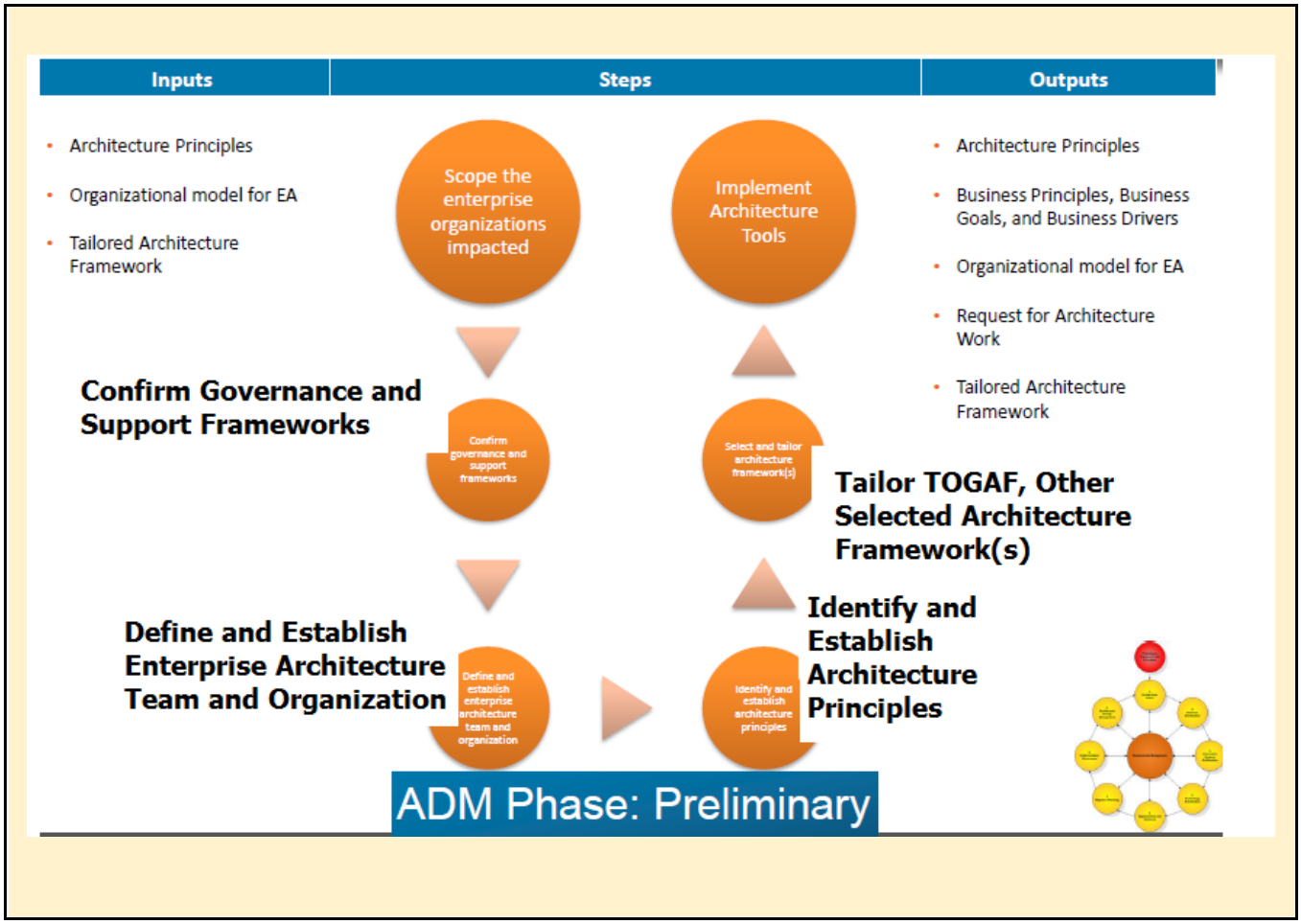
Content Framework

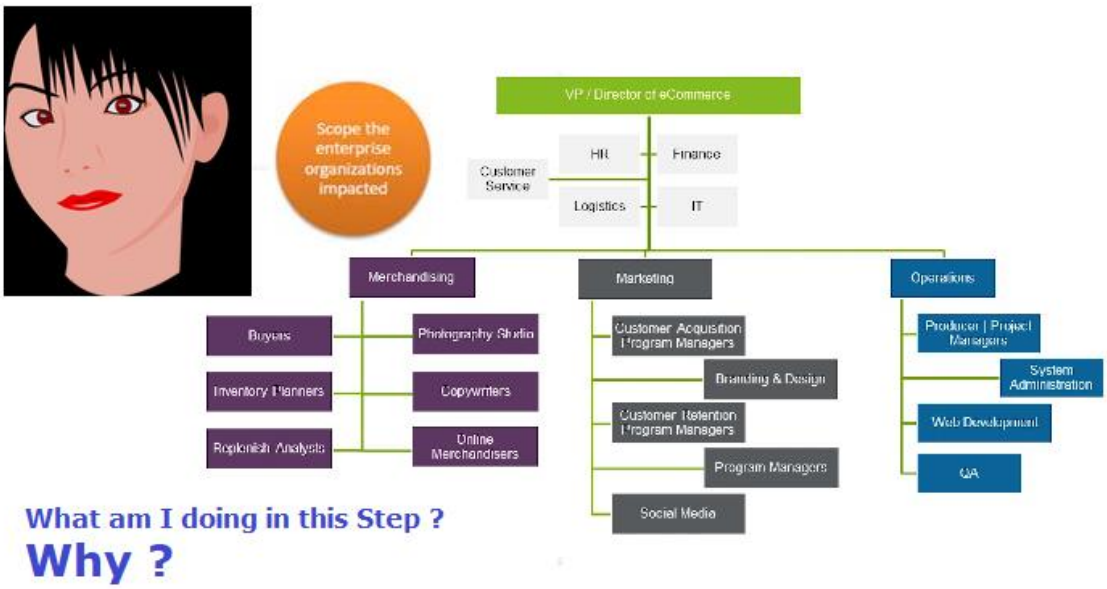
Which BB goes where

And what is this ? - >

One Artifact element; Can be a BB by itself

How related to Artifact produced in this Phase ?


Inputs
Steps
Outputs
Architecture Principles
Organizational model for EA
Tailored Architecture Framework
Scope the enterprise organizations impacted
Implement Architecture Tools
Architecture Principles
Business Principles, Business Goals, and Business Drivers
Organizational model for EA
Request for Architecture Work
Tailored Architecture Framework
Confirm Governance and Support Frameworks
Confirm governance and support frameworks
Select and tailor architecture framework(s)
Tailor TOGAF, Other Selected Architecture Framework(s)
Define and Establish Enterprise Architecture Team and Organization
Define and establish enterprise architecture team and organization
Identify and establish architecture principles
Identify and Establish Architecture Principles
ADM Phase: Preliminary

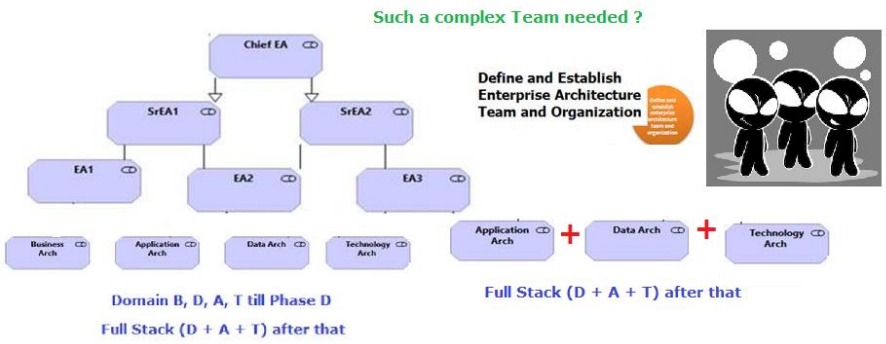


Organizational Context :

Determining the existing Enterprise and business capability and establishing the Capability Maturity target

Reviewing the organizational context for conducting Enterprise Architecture and in the process identifying the elements of the Enterprise organizations affected by the Architecture Capability

Identifying the established frameworks, methods, and processes that intersect with the Architecture Capability



In different Phases of ADM, we need different skills within the field of Architecture itself

Principles : provides a foundation for making architecture and planning decisions, framing policies, procedures, and standards, and supporting resolution of contradictory situations

Understand Every step

Question it, till you are clear about its purpose

Nice to Know Box

An MSA – Micro Service Architecture provides the service layer in an architecture, and the associated infrastructure for those services. To reap the major benefits of an MSA, it usually focuses on the technology capabilities in the Enterprise and may be a vital cog in providing a set of highly reliable and scalable Capabilities.

Given this role for the MSA within an overall enterprise, it is worth noting that coordination and alignment with other stakeholders will always be a mandatory concern during the development of an MSA. **How Enterprise Architects will engage and support** an MSA implementation is an enterprise-level decision.

The Preliminary Phase ensures the skills, capabilities, and governance required for MSA are addressed.

(From TOGAF 10 documentation, Relevant for TOGAF 9.2 also)

Nice to Know Box

Architecture Principle in connection with MSA- Micro Service Architecture can be :

Statement : **A microservice is independent of all other services.**

Rationale (Reason / Justification) : Independence of services enables rapid service development and deployment, and permits scalability through instantiation of parallel, independent services. This characteristic also provides resilience; a microservice is allowed to fail and its responsibilities are taken over by parallel instantiations (of the same microservice), which do not depend on other services. When a microservice fails, it does not bring down other services.

Implications : Both design and runtime independence of services are required. It is necessary for the business to determine whether providing scalability and resilience of the business function are paramount considerations. If so, MSA provides a means of achieving these characteristics

If the architect is introducing the TOGAF framework to an Enterprise that is already committed to the use of microservices and distributed architectures, or that is part of a larger Enterprise that has made a strategic decision to use MSA, then adoption of these principles is a given.

If, on the other hand, the project is adapting, for example, a legacy monolithic application to an MSA, or is launching an entirely new development, there are implications for the organization and the architecture governance which must be considered during this Preliminary Phase.

(From TOGAF 10 documentation, Relevant for TOGAF 9.2 also)

Nice to Know Box

Architecture Maturity Assessment in light of MSA-Micro Services Architecture

Development and deployment of a distributed MSA assumes that the enterprise is either already or prepared to become service-oriented as a starting point. The process of conducting an SOA maturity assessment during the Preliminary Phase, using The Open Group Service Integration Maturity Model (OSIMM) is recommended. [OSIMM is not needed to be studied for TOGAF 9.2]

Team organization – relevant skills and competencies for the microservices required : he independence of an MSA team in the vertical sense, meaning that the entire lifecycle from architecture development through technology selection and microservice development and deployment is owned by the team responsible for that microservice. Development and deployment of the microservice components of a distributed architecture will not be effective if the core MSA principle of service-independence is not reflected in the organization. Individual teams must have the flexibility of selecting the optimum technologies and implementations which best suit their project development, always of course subject to the overall constraints laid down in the Enterprise Architecture.

Considerations of microservice lifecycle versus team ownership - It is a common best practice in distributed systems development for a single team to own a microservice over its entire lifecycle, from development through deployment and ultimate retirement. This is an organizational decision that should be made early on.

Agile / DevOps methodologies - The rapid adoption of Agile / DevOps methodologies across the industry is noted. These are particularly well-suited to distributed architecture implementations such as MSA and cloud-native, and should be examined seriously by the Enterprise Architecture team. These methodologies will also have an impact on the membership of the Enterprise Architecture team itself.

As with the introduction of any significant new idea, it is good to start with a small project and learn from experience before implementing on a wide scale. The architect can undertake a complete but rapid TOGAF cycle, without spending too much effort on detailed analysis, to define a pilot project. Successful implementation of that project will then lead to final adoption of the principle and close off any maturity assessment gaps identified over time. Of course, the organizational implications of an MSA distributed architecture must be assessed as part of this learning process.

(From TOGAF 10 documentation, Relevant for TOGAF 9.2 also)

Note that the last paragraph refers to quick run (near dry run) cycle of ADM. It does not prescribe any Pilot Project.

Point Gallery

What Capability level : now, later ?

Maturity Assessment Level : now Level x

What all to be understood first ?

Organizational Context

What all to be set up ?

Governance & Sponsor

EA department

Architecture Repository

Tool Recommendations

Who all to be involved ?

Topmost officials : Get them on board

Principles – Goals – Drivers : towards that – in what time frame ?

Formulated; y years

Customize what ?

TOGAF 9.2 documentation Model as our Tailored Metamodel

Nice to Know Box

Strategy : The direction and scope of the Enterprise over the longer term.

The strategy is defined in order to achieve competitive advantage for the organization through its configuration of resources within a changing business environment.

The strategy also needs to fulfil the stakeholders' expectations.

Points to Ponder

Scenario Approach : Where would it fit ?

How often is Preliminary Phase repeated ?

Only once in a Long term. Say every 3 or 4 or 5 years

What happens when a Preliminary Phase is repeated ?

Practically every step is Repeated, but with enhancements over existing Building Blocks

and documentary information

Principles – updated

Organizational Context – Revisited

Repository, especially Reference Materials– new look.

Why – because newer technologies, newer management Tools are added

Newer version of TOGAF may be adopted and still Tailored

Newer Modelling Tools and techniques may be brought in

What about Scope ?

From existing EA project – long term of Initiative(s) of past years, new Initiative(s) may be defined

Can we have some examples of such Initiatives ?

Coping with higher volumes	Social Media Integration
Enterprise Mobility	Analytics across Enterprise Data
Cloud Enablement reduce OPEX estate	To reduce OPEX of the IT
Reorienting Business and IT approach	Moving to a smarter
New product line to be introduced volumes	IT enabling higher
Security weakness to be tightened	Source data automation
IT rationalization : Simplifying IT projects into a few	
Introducing Analytics in areas where data is rich and bulky	
Improving Customer perception though variety of approaches	
Improved 'Business Performance' in all automation areas	
Improving bottom-line without considering increase in top line	
Gradual replacement of legacy and obsolete technology which drags down business, revenue and efficiency	

Can we get to know about this Preliminary Phase in nutshell ?

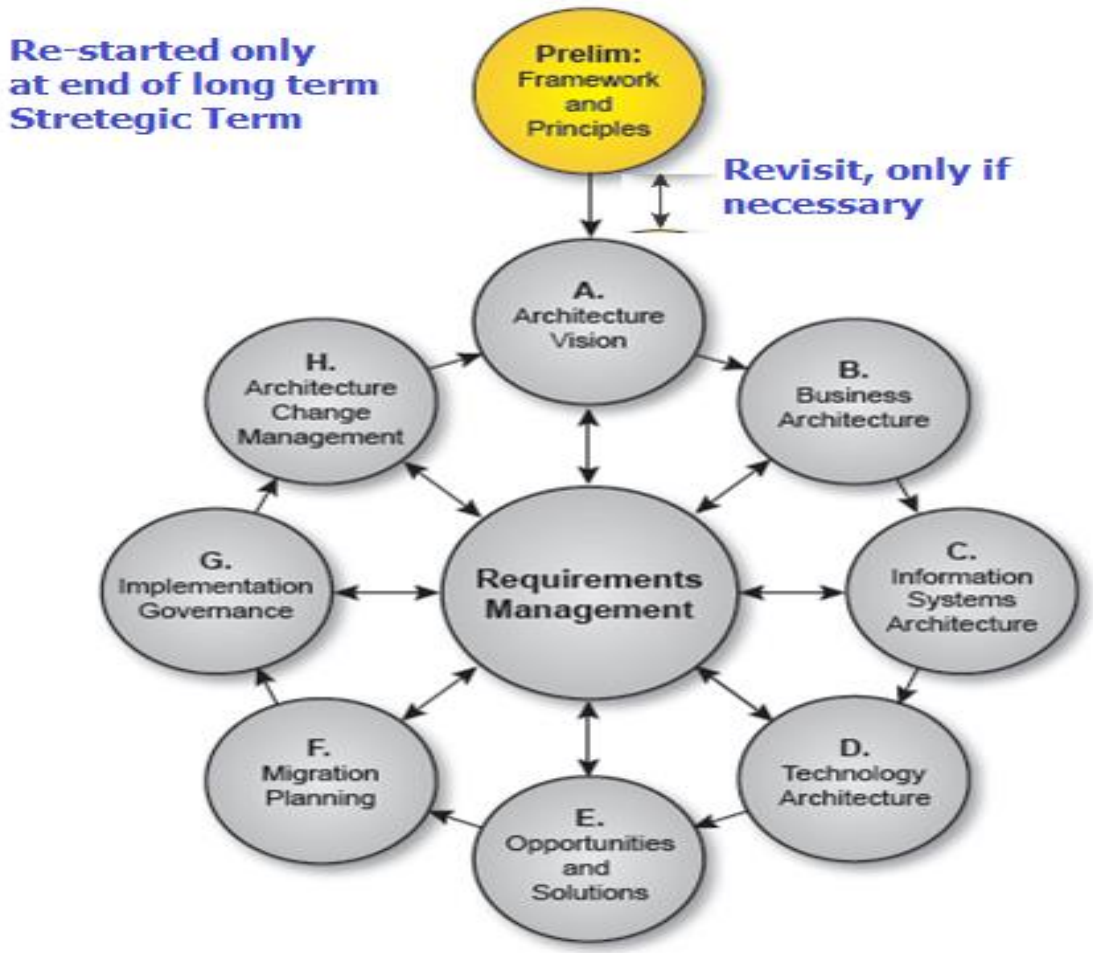
The main objectives of the Preliminary Phase are to determine and establish the Architecture Capability desired by the organization.

A key part of this is to define what needs to be done, and how it will be carried out. For example, the main output is a Request for Architecture Work that outlines requirements, and deciding what organizational context, structures, tools or architecture frameworks need will be needed to support this work.

Nice to Know Box

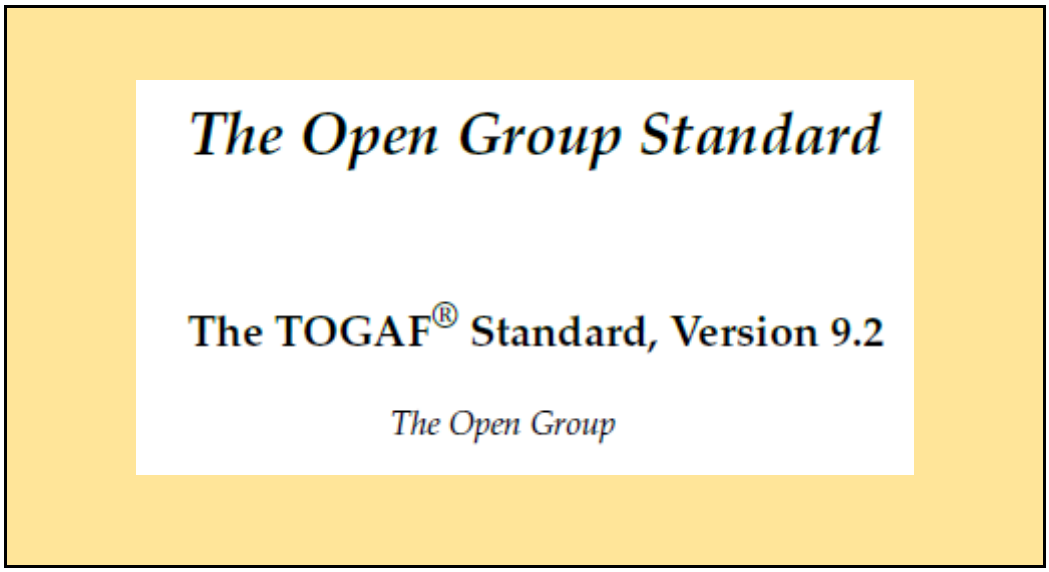
Will we be doing repeating Preliminary Phase for every project that we start ?

Or will be doing it every year or every quarter ?

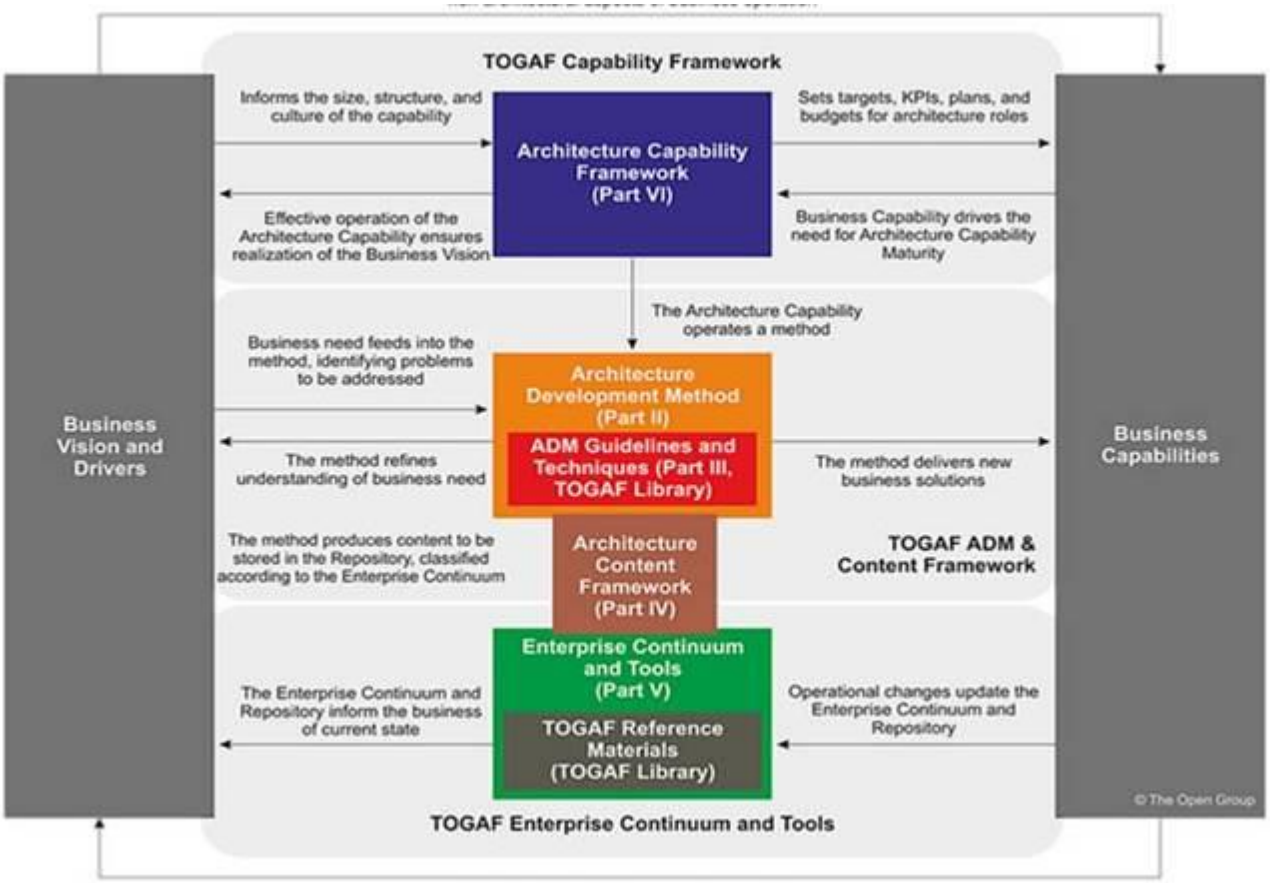


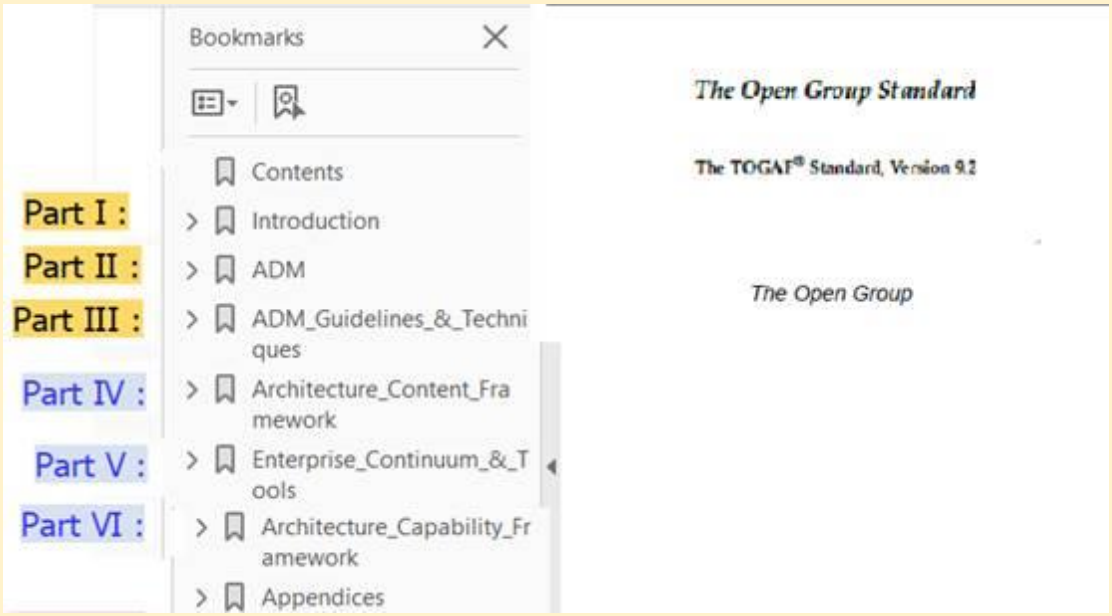
Such an Architecture Movement is for a **Long Term such as three to five years**, before Preliminary Phases is revisited for a resurgent Movement.

Now, Moving a little away from Preliminary Phase



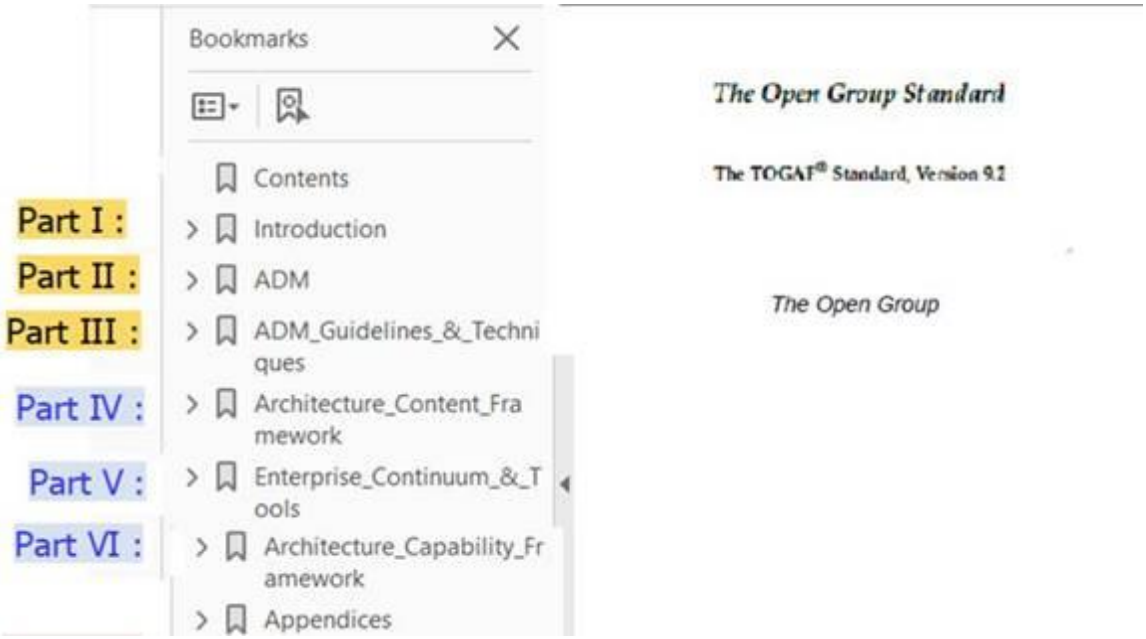
https://pubs.opengroup.org/architecture/togaf9-doc/arch/

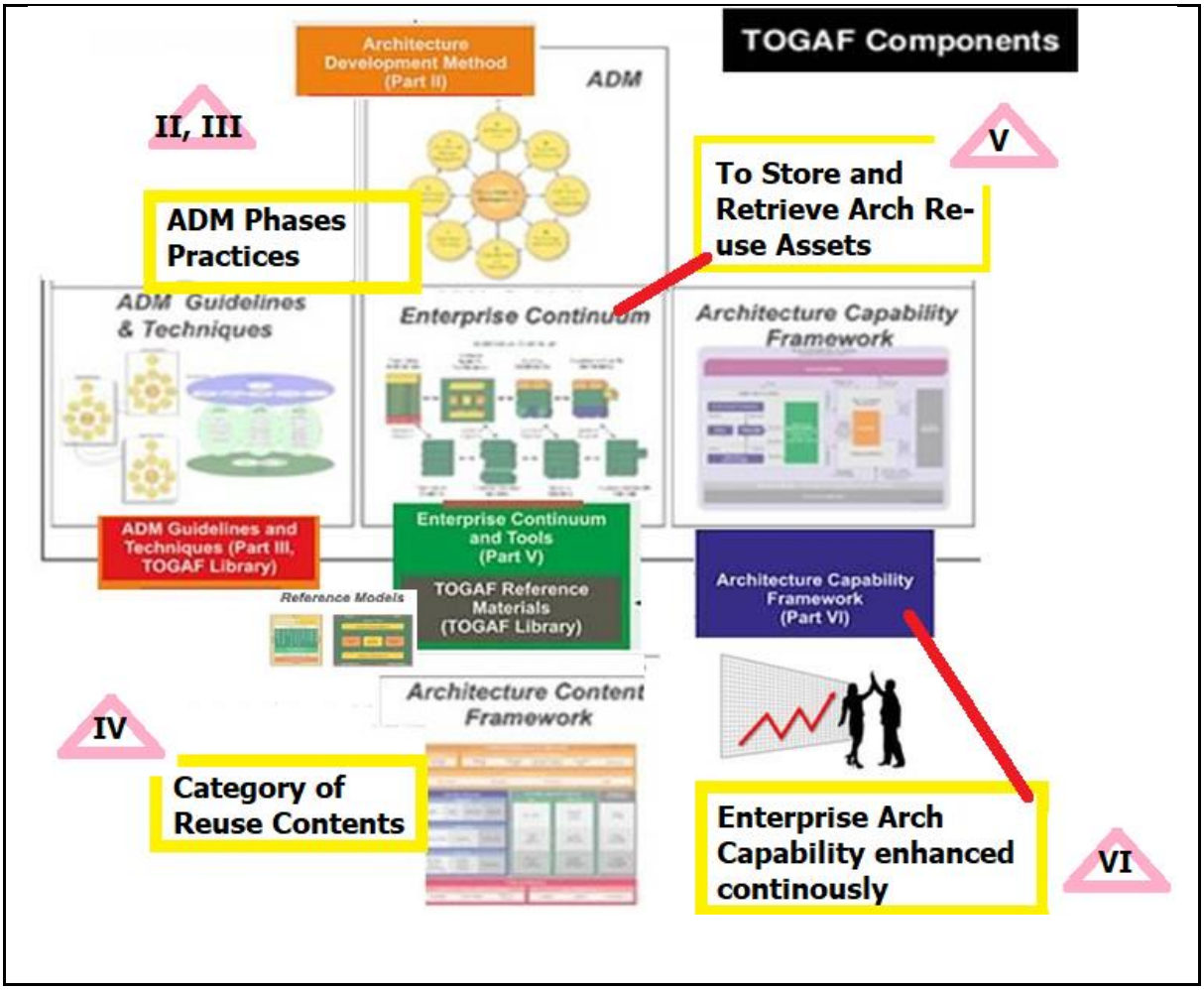

TOGAF Capability Framework
Informs the size, structure, and culture of the capability
Sets targets, KPIs, plans, and budgets for architecture roles
Architecture Capability Framework (Part VI)
Effective operation of the Architecture Capability ensures realization of the Business Vision
Business Capability drives the need for Architecture Capability Maturity
The Architecture Capability operates a method
Business need feeds into the method, identifying problems to be addressed
Architecture Development Method (Part II)
ADM Guidelines and Techniques (Part III, TOGAF Library)
Business Vision and Drivers
The method refines understanding of business need
The method delivers new business solutions
Business Capabilities
The method produces content to be stored in the Repository, classified according to the Enterprise Continuum
Architecture Content Framework (Part IV)
TOGAF ADM & Content Framework
Enterprise Continuum and Tools (Part V)
The Enterprise Continuum and Repository inform the business of current state
Operational changes update the Enterprise Continuum and Repository
TOGAF Reference Materials (TOGAF Library)
TOGAF Enterprise Continuum and Tools
© The Open Group


Bookmarks
Contents
Part I :
Introduction
Part II :
ADM
Part III :
ADM_Guidelines_&_Techniques
Part IV :
Architecture_Content_Framework
Part V :
Enterprise_Continuum_&_Tools
Part VI :
Architecture_Capability_Framework
Appendices
The Open Group Standard
The TOGAF® Standard, Version 9.2
The Open Group

Parts of TOGAF documentation and Components of TOGAF :

These will be dealt gradually during this course




TOGAF Components
Architecture Development Method (Part II)
ADM
II, III
ADM Phases Practices
V
To Store and Retrieve Arch Re-use Assets
ADM Guidelines & Techniques
Enterprise Continuum
Architecture Capability Framework
ADM Guidelines and Techniques (Part III, TOGAF Library)
Enterprise Continuum and Tools (Part V)
TOGAF Reference Materials (TOGAF Library)
Reference Models
Architecture Capability Framework (Part VI)
Architecture Content Framework
IV
Category of Reuse Contents
Enterprise Arch Capability enhanced continously
VI

TOGAF recommended Template format for this deliverable : **Request for Architecture Work**

1 Purpose of this Document

This document is a Request for Architecture Work for the <<XXX project>>.

A Request for Architecture work describes the business imperatives behind the architecture work, thus driving the requirements and performance metrics for the architecture work. This should be sufficiently clear so that initial work may be undertaken to scope the business outcomes and resource requirements, and define the outline information requirements and associated strategies of the architecture work to be done.

The Request for Architecture Work is a document that is sent from the sponsoring organization to the architecture organization to trigger the start of an architecture development cycle. Requests for Architecture Work can be created as an output of the Preliminary Phase, a result of approved architecture Change Requests, or terms of reference for architecture work originating from migration planning.

In general, all the information in this document should be at a high level.

2 Request for Architecture Work

2.1 Summary of Request

<<Provide a brief executive summary paragraph, highlighting the essence of the requested architecture work.>>

2.2 Organization Sponsors

This architecture work is requested and sponsored by:

<<Name>>

<<Position>>

<<Organization>>

<<Email>>

<<Tel>>

3 Business Imperative

<<Provide a brief overview of the business context, with the focus on describing the key business opportunity or issue to be addressed.>>

<<Topics to consider include:

- Organization's mission statement
- Business goals (and changes)
- Strategic plans of the business
- Changes in the operating environment
- Outline of the specific opportunity or issue underlying the need for architecture work>>

3.1 Organization Mission Statement

3.2 Business Goals (and Changes)

3.3 Strategic Plans of the Business

3.4 Changes in the Business Environment

3.5 Purpose of Architecture Work

<<Outline the purpose of the architecture work, highlighting its anticipated contribution to the business issue described above.>>

3.6 Success Criteria

<<Indicate what a "good" outcome of the architecture work will look like.>>

<<This should be considered on two levels:

1. Short-term – the desired content and usage of the architecture work products
2. Long-term – the desired eventual business improvements resulting from this architecture work

Both qualitative and, ideally, quantitative success metrics should be noted.>>

3.7 Timescale

<<When are the results of the architecture work needed? If a deadline is stated, please explain its significance.>>

4 Key Constraints

4.1 Organizational Constraints

<<Describe which organizations/departments/business units are to be covered by the work and/or any areas to be specifically excluded.>>

4.2 Budget Information and Financial Constraints

<<Funding should be considered on two levels:

1. Short-term – how much funding is available to support the immediate team creating architecture work products? (This might be in £ or man-days). Where will this funding be provided from?
2. Long-term – what approximate level and sources of funding are available for the ultimate implementation of whatever architecture is proposed?

Note that at this stage (1) MUST be addressed, whereas (2) should be considered / indicated where possible.>>

4.3 External and Business Constraints

<<Are there any other constraints; e.g., resources to be used, external dependencies, specific regulations etc?>>

5 Additional Information

<<Only if relevant, provide any additional information which may be of use to the architecture team.>>

<<For example:

- Previous work in this area
- Business strategy documents
- Current architecture/business/IT system descriptions or diagrams
- Key contacts, etc.>>

<<Note: In order to keep the Request for Architecture Work itself brief, this might consist of links to existing documents.>>

5.1 Current Business System Description

5.2 Current Architecture/IT System Description

5.3 Description of Developing Organization

5.4 Description of Resources Available to Developing Organization

Also referred to as Requirement for Architecture Work

TOGAF recommended Template format for this deliverable :
Architecture Principles

1 Purpose of this Document

This document details the Architecture Principles to which <enter organization name> adheres.

<<The purpose of this document is to define the Architecture Principles for the relevant domain/sub-domain.

Note 1: A principle defines the enduring rules that govern the architecture of a desired system; i.e., the target architecture. It is mandatory for principles to be considered when designing architectures.

Note 2: A domain team may wish to create one principles document for the domain, or multiple principles documents – one per sub-domain. This section should outline the number of principles documents that exist for the domain.

Note 3: If this document contains all the principles for a domain, Section 3 (Architecture Principles) can be split into a number of sections, one for each sub-domain, with each section heading including the sub-domain name in its title.

Note 4: This exercise only defines the content structure and deliverable templates for the Reference Architecture. It does not define any governance or RACI aspects of these deliverables, nor state how and when these deliverables should be completed as these decisions will need to be taken by the XXXX architecture function that includes the domain teams.

Note 5: These deliverable templates are based on generic enterprise architecture best practice, TOGAF, and the format of the current architecture documentation within XXXX.

The purpose of this section is to provide the background and context for this document.

Mandatory/optional: This section is mandatory.

In terms of quality criteria, this section should make clear:

a. Domain/sub-domain for which this architecture principles document has been produced
b. Previous events and the rationale/background/context for this document
c. Purpose of the architecture principles and thus this document
d. Scope of this document which clearly outlines the architecture principles both in and out of scope
e. Stakeholders for the architecture principles and this document
f. Outline of the architecture principle documentation set>>

2 Principle Template

Principles are general rules and guidelines, intended to be enduring and seldom amended, that inform and support the way in which an organization sets about fulfilling its mission.

In their turn, principles may be just one element in a structured set of ideas that collectively define and guide the organization, from values through to actions and results.

It may be that the Architecture Principles are documented using a wiki or as an intranet rather than a text-based document. Even better would be to use a licensed TOGAF tool that captures this output.

This document shows "typical" contents of the Architecture Principles and can be adapted to align with any TOGAF adaptation being implemented.

Each principle will follow the template below. The template can be adapted to align with any TOGAF adaptation being implemented.

The Name should both represent the essence of the rule as well as be easy to remember. Specific technology platforms should not be mentioned in the Name or Statement of a principle. Avoid ambiguous words in the Name and Statement such as: "support", "open", "consider", and the word "avoid" itself. Be careful with "manage (ment)", and look for unnecessary adjectives and adverbs (fluff).

Name	**<Name of Principle>**
Reference	<Unique identifier for the principle>

Statement	The Statement should succinctly and unambiguously communicate the fundamental rule. For the most part, the principles statements for managing information are similar from one organization to the next. It is vital that the principles statement be unambiguous.
Rationale	The Rationale should highlight the business benefits of adhering to the principle, using business terminology. Point to the similarity of information and technology principles to the principles governing business operations. Also describe the relationship to other principles, and the intentions regarding a balanced interpretation. Describe situations where one principle would be given precedence or carry more weight than another for making a decision.
Implications	The Implications should highlight the requirements, both for the business and IT, for carrying out the principle – in terms of resources, costs, and activities/tasks. It will often be apparent that current systems, standards, or practices would be incongruent with the principle upon adoption. The impact to the business and consequences of adopting a principle should be clearly stated. The reader should readily discern the answer to: "How does this affect me?" It is important not to oversimplify, trivialize, or judge the merit of the impact. Some of the implications will be identified as potential impacts only, and may be speculative rather than fully analyzed.

3 Summary of Principles

<<The purpose of this section is to provide a list of the high-level principles (in bullet or table format) that are defined in this document.

Mandatory/optional: This section is mandatory.

In terms of quality criteria, this section should make clear:

Descriptions of the high-level principles in this document>>

4 Business Principles

Name	Primacy of Principles
Reference	BP01
Statement	These principles of information management apply to all organizations within the enterprise.
Rationale	The only way we can provide a consistent and measurable level of quality information to decision-makers is if all organizations abide by the principles.
Implications	Without this principle, exclusions, favouritism, and inconsistency would rapidly undermine the management of information. Information management initiatives will not begin until they are examined for compliance with the principles. A conflict with a principle will be resolved by changing the framework of the initiative.

Mandatory/Advisory	Principle Review Reason	Review Date
<Reflects whether the principle is mandatory (e.g., regulatory) or advisory.>	<Circumstances under which the principle should be reviewed in order to ensure its validity.>	<Latest review date>

Name	<Name of Principle>
Reference	
Statement	
Rationale	
Implications	

5 Data Principles

Name	<Name of Principle>
Reference	
Statement	
Rationale	
Implications	

Name	<Name of Principle>
Reference	
Statement	
Rationale	
Implications	

6 Application Principles

Name	<Name of Principle>
Reference	
Statement	
Rationale	
Implications	

Name	<Name of Principle>
Reference	
Statement	
Rationale	
Implications	

7 Technology Principles

Name	<Name of Principle>
Reference	
Statement	
Rationale	
Implications	

Name	<Name of Principle>
Reference	
Statement	
Rationale	
Implications	

TOGAF recommended Template format for this deliverable :
Business Principles, Goals, Drivers

1 Purpose of this Document

This document describes business principles, business goals, and business drivers.

Business principles, business goals, and business drivers provide context for architecture work, by describing the needs and ways of working employed by the enterprise. Many factors that lie outside the consideration of architecture discipline may nevertheless have significant implications for the way that architecture is developed.

The content and structure of business context for architecture is likely to vary considerably from one organization to the next.

2 Business Principles

2.1 Principles

Name	<Name of Principle>
Reference	<Unique identifier for the principle>
Statement	The Statement should succinctly and unambiguously communicate the fundamental rule. For the most part, the principles statements for managing information are similar from one organization to the next. It is vital that the principles statement be unambiguous.
Rationale	The Rationale should highlight the business benefits of adhering to the principle, using business terminology. Point to the similarity of information and technology principles to the principles governing business operations. Also describe the relationship to other principles, and the intentions regarding a balanced interpretation. Describe situations where one principle would be given precedence or carry more weight than another for making a decision.
Implications	The Implications should highlight the requirements, both for the business and IT, for carrying out the principle – in terms of resources, costs, and activities/tasks. It will often be apparent that current systems, standards, or practices would be incongruent with the principle upon adoption. The impact to the business and consequences of adopting a principle should be clearly stated. The reader should readily discern the answer to: "How does this affect me?" It is important not to oversimplify, trivialize, or judge the merit of the impact. Some of the implications will be identified as potential impacts only, and may be speculative rather than fully analyzed.

Mandatory/Advisory	Principle Review Reason	Review Date
<Reflects whether the principle is mandatory (e.g., regulatory) or advisory.>	<Circumstances under which the principle should be reviewed in order to ensure its validity.>	<Latest review date.>

Name	<Name of Principle>
Reference	
Statement	
Rationale	
Implications	

3 Business Goals

<<Provide a brief overview of the business context, with the focus on describing the key business opportunity or goals to be addressed.>>

<<Topics to consider include:

- Organization's mission statement
- Business goals (and changes)
- Strategic plans of the business>>

3.1 Organization Mission Statement

View Name	Mission Statement
Stakeholder	Sponsor
Concern	Does the architecture clearly acknowledge the business mission? Is the architecture aligned to the business mission?
Description	The business mission describes the rationale for existence of a business and outlines the challenge facing the organization in achieving its goals in terms of: culture, market position, capabilities, and growth. The mission reflects the desired goals of the entire

	organization, its behavior, and what is important. It is intended to generate inspiration and aspiration within the organization. Whilst a mission statement must exist for the overall organization, it is possible for various business units to create their own mission statements that help identify their contribution to the overall goal. Most mission statements are couched as a short description of the goal followed by a series of statements that describe the manner in which the goal is to be achieved, for example: "Improving people's lives through the creation of choice." Some statements simply give the goal, for example: "Do not be evil." Example mission statement is: "Setting the standard in helping our customers manage their financial future."
Guidance	Defined mission statements are contained within the appropriate artifact template in the architecture content repository. If the relevant mission statements already exist, which should be true for most projects, then this View is a simple selection from that. If not, the following key points must be considered. When deconstructing a higher-level business mission to formulate a mission statement appropriate to a project or business unit there are several key point that should be considered: · Does the mission statement fully align with the higher-level business mission? · Do the defined goals fit within the goals hierarchy of the organization? If not, does the organization expect the project to change its direction and goals hierarchy? · Does the statement clearly fit within the operational scope of the business unit or project?

	· Is the statement unambiguously formulated? · Does everyone agree on the definition? · Can the principles and constraints that the architecture, project/business unit must work under be clearly related to the mission statement? When a higher-level business mission is deconstructed to formulate a mission statement appropriate to a business unit it must be considered also if the mission statement fully aligns with the higher-level Business mission. Defined mission statements are contained within the appropriate artifact template in the architecture content repository. If the relevant mission statements already exist, which should be true for most projects, then this View is a simple selection from that.

Reference-ID	Title	Business Mission Statement

3.2 Business Goals (and Changes)

Reference-ID	Title	Business Goal

3.3 Strategic Plans of the Business

View Name	Business Strategy
Stakeholder	Sponsor
Concern	Does the Business Strategy to which the architecture is aligned match my expectations?
Description	The Business Strategy describes how an organization wants to achieve a business vision within a given timeframe, and to some extent how it can be achieved.

	This is a focused subset of the overall organization vision and goals and provides insight into what the likely scope of the architecture will need to be. Strategy is the "what and how" translation of the business vision or mission and describes how the business vision will be reached. Business Strategies are concerned with identifying the statements that set out the direction, means, and key actions to achieve a subset of the organization's objectives. Strategy is the description of what, and on a high level how, the organization's management will achieve their goals. The overall Business Strategy is usually very important to both the long and short-term goals for the architecture. Architecture scope and objectives should align with the Business Strategy. A specific business unit or program strategy is sometimes the key driver for a project. In this case it is an architectural role to ensure that the project is implemented in a way that supports the overall Business Strategy.
Guidance	The Business Strategy has to be SMART and formulated in terms of the results that have to be achieved. Important strategic goals may be defined as Key Result Areas (KRAs). The organization objectives need to be related to the KRAs within the roadmap to make transparent what the tangible benefits of a target are, such as added value, responsiveness, effectiveness. A KRA structure can also be applied in a solution outline, as part of the justification for a project. This View itself is a simple selection of the strategies. See the business strategies artefact template for a list of attributes.

Reference-ID	Title	Business Strategy Statement

4 Business Drivers

View Name	Business Drivers
Stakeholder	Sponsor
Concern	Do the Business Drivers to which the architecture is aligned, match my expectations?
Description	The impacts of environmental trends on an organization are described as the business drivers. Another way to view business drivers is that they represent the business' understanding of the way the business must itself change in response to changes and trends in the environment. The business drivers drive the creation of business strategies, and shape the architecture principles. The business vision is the business' estimate of where a set of expected changes and trends in the environment and the responses to them will position the business at some future time. The business vision can crystallize the business drivers, and thus the organization is in control of and changes its own environment. An example of an environment change creating business drivers: "A new low-cost airline enters the market and the existing, high-cost carriers have to change their business strategies to the new operating environment." An example of changing the environment creating business drivers: "A company realizes that the airline market is dominated by high-cost carriers. It decides to enter the market, defining a new niche for low-cost/no frills travel."

Guidance	To be able to find all relevant business drivers for the project, the following list can help: · Competitive environment – e.g., emergence of powerful competitors with different business models. · Regulatory environment – e.g., impact of US reporting requirements on foreign owned businesses or trading partners. · Ownership environment – e.g., emergence of private equity firms, leading to different expectations of returns. · Demand environment – e.g., high growth in acceptability and use of e-channels amongst many customer segments. · Supply Environment – e.g., M&A in the supply base, leading to a shift in bargaining power. · Resources environment – e.g., increased availability and capability of call centres in Eastern Europe and Asia. The attributes of the drivers themselves are described within the appropriate artifact template.

Reference-ID	Title	Business Driver

TOGAF recommended Template format for this deliverable : **Tailored Architecture Framework**

1 Purpose of this Document

This document describes the Tailored Architecture Framework.

TOGAF provides an industry standard framework for architecture that may be used in a wide variety of organizations. However, before TOGAF can be effectively used within an architecture project, tailoring at two levels is necessary.

Firstly, it is necessary to tailor the TOGAF model for integration into the enterprise. This tailoring will include integration with project and process management frameworks, customization of terminology, development of presentational styles, selection, configuration, and deployment of architecture tools, etc. The formality and detail of any frameworks adopted should also align with other contextual factors for the enterprise, such as culture, stakeholders, commercial models for enterprise architecture, and the existing level of architecture capability.

Once the framework has been tailored to the enterprise, further tailoring is necessary in order to tailor the framework for the specific architecture project. Tailoring at this level will select appropriate deliverables and artifacts to meet project and stakeholder needs.

2 Tailored Architecture Method

2.1 Architecture Method

3 Tailored Architecture Content

<<Deliverables and artifacts.>>

3.1 Architecture Deliverables

3.2 Architecture Artifacts

4 Configured and Deployed Tools

4.1 Tools

5 Interfaces with Governance Models and Frameworks

5.1 Enterprise Architecture Management Framework

5.2 Capability Management Framework

5.3 Portfolio Management Framework

5.4 Project Management Framework

5.5 Operations Management Framework