Module 1 : Basic Concepts : Intro to EA

A. Part 1 : 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
2. For Certification purposes, Level 1

B. Part 2 : Go through and workout the exercises in the Part 2 : Module1Questions&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.

Part 1 : Summary portion

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

TOGAF - The Open Group Architecture Framework

EAF : Enterprise Architecture Framework

ADM : Architecture Development Method

Organization : May mean a department or unit, in TOGAF parlance; other names being department, functional groups or communities

Pain Points : Areas in the Enterprise which may need attention

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

Architecture 'Domains' Supported by TOGAF : B, D, A, T : Business, Data, Application, Technology

Technology Architecture : Similar to Infrastructure Architecture, but includes basic system software like O/s as also the hardware and network areas

Artifact : Architectural element, a Work piece produced in Architecture

Architecture Landscape : All current architectural assets

Architecture Repository : A store related to architecture; stores assets and few other things

What is TOGAF - An Enterprise Architecture Framework. EAF

The Open Group Architecture Framework

Enterprise Architecture Framework - EAF

A **Concept and Body of Knowledge**

for assisting in the

acceptance, production, use, and maintenance of

Enterprise Architecture

in the form of Best Practices

Beat Practices – Yes. How to - Yes

Precise Practices, How exactly, What is the actual Architectural solution – NO

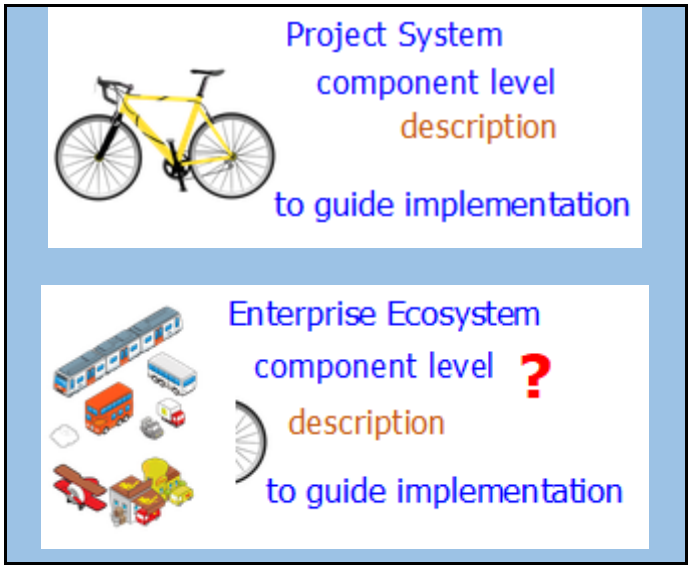
Do not expect these in TOGAF. We learn, then get Certified. Thereafter we use our experience over Best Practices to move towards precise solution. TOGAF is not expected to contain these.

It is a Framework. EAF. Not a Solution Stack

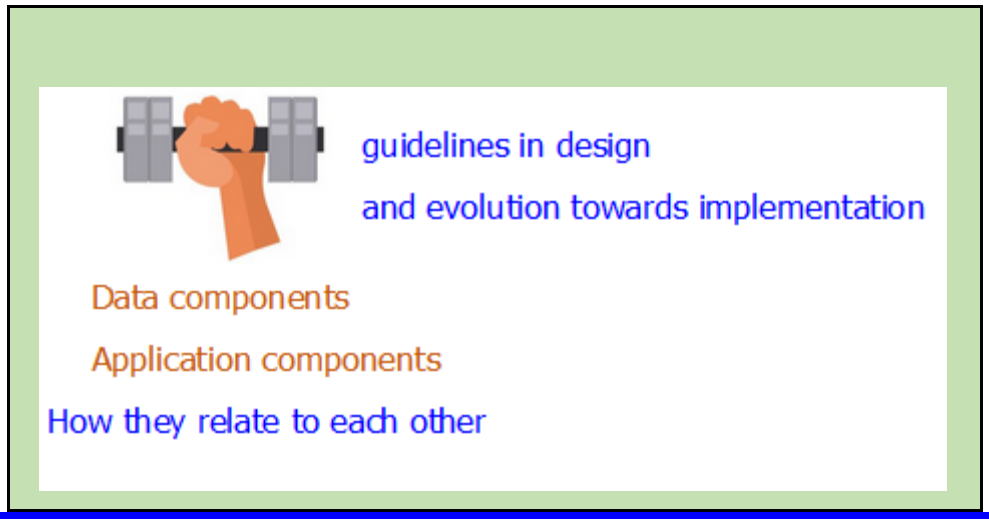
What is Software Architecture

In TOGAF, "architecture" has two meanings depending upon the context :

1. A formal description of a system, or a detailed plan of the system at a component level to guide its implementation



2. The structure of components, their inter-relationships, and the principles and guidelines governing their design and evolution over time



Definition of Architecture

in the context of TOGAF

A formal description of .... - Enterprise Arch focus

A formal description of a system, or a detailed plan of the system at a component level to guide its implementation

The structure of .. evolution over time

- Solution Arch focus

The structure of components, their inter-relationships, and the principles and guidelines governing their design and evolution over time

Purpose of Enterprise Architecture :

To optimize across the Enterprise 

the often fragmented legacy of processes

(both manual and automated)

into an integrated environment that is

responsive to change and

supportive of the delivery of the business strategy

Enterprise Architecture is about responding to change and clearly describe how the effects of the change affect the Enterprise as a whole.

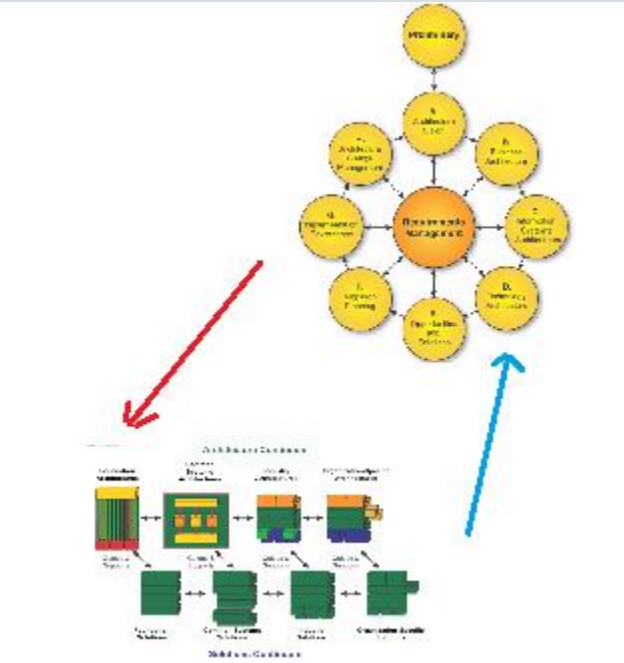
While we do have many EAFs, TOGAF stands out due to its

iterative process model : ADM

and

reusable architectural assets

Iterative model for : EA for all projects, not one focus project



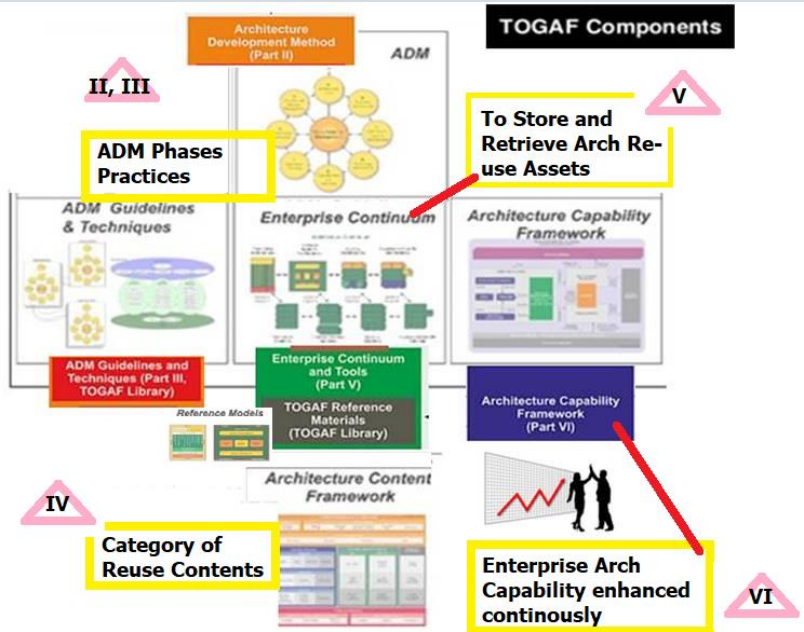
Reusable Architectural assets : For the whole Enterprise

ADM Phases - iterative Model;

Other Asset Components of TOGAF ?

(Enterprise Continuum + Architecture Repository, Content Management Framework,

Capability Framework)



Quiz Time

What to expect in an EAF like TOGAF ?

Structure, Direction, Guidance

What not to expect ?

Solution to my work area in my Enterprise

Solution to my work area

Final templates ...

Getting into a few Definitions, all as per TOGAF

Definitions - As per TOGAF

A **System** is a collection of components organized to accomplish a specific function or set of functions.

A Collection To accomplish	

Enterprise : Any collection of organizations that has a common set of goals.

Large Banks, Financial Power houses, Retail Chains

Aerospace industries, airlines and airport operators

Government Departments and Agencies

..... Enterprises by themselves

A Collection Of Organizations Common Goals	

What is an Enterprise is all about ?

Common Ownership

info systems

Geographically **Distributed Business**

Global Business Partners

Multiple Divisions, Departments.

Multiple Missions and Functions

Enterprise :
Info Systems,
Domain

Extended Enterprise

domain

Extended :
Partners
Suppliers
Customers

Enterprise Architecture crosses multiple systems, and multiple functional groups within the Enterprise

EA Department must have Comprehensive knowledge of ALL

Enterprise Architects must have Broader knowledge

Specialist Architects must have Deeper knowledge

Q : What kind of Framework is TOGAF ?

Answer : It is an EAF – Enterprise Architecture Framework

The word Framework is used in many contexts in software and IT. Try to figure out what EAF is all about.

A Related question, in Level 1 :

Q : Which one of the following best describes TOGAF ?

A. A framework and method for architecture development
B. An architecture pattern
C. A business model
D. A method for developing Technology Architectures
E. A method for IT Governance

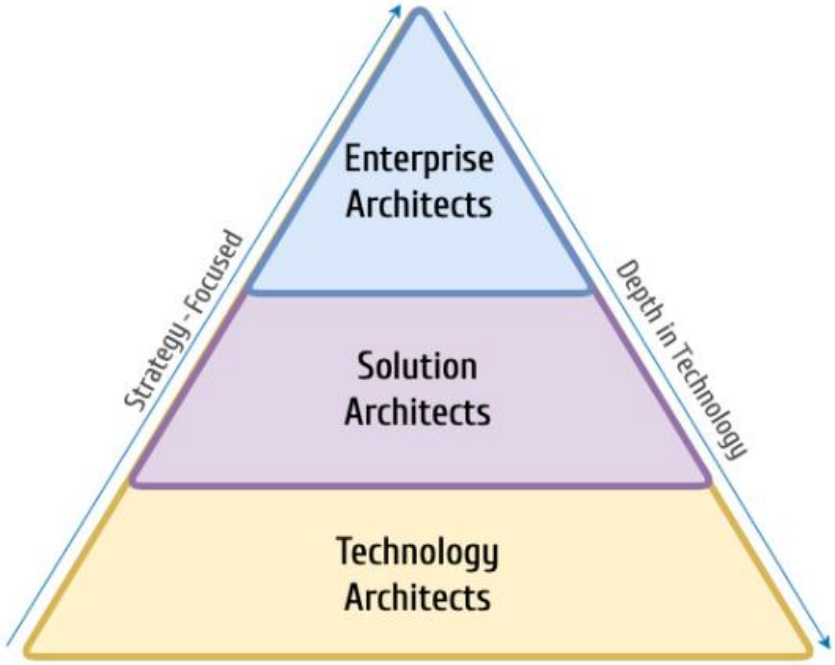
Answer : A TOGAF is an Arch framework having its own ADM method

Explanation leading to the answer:

TOGAF - The Open Group Architecture Framework is a framework - a detailed method and a set of supporting tools - for developing an enterprise architecture.

Framework because it is an EAF : Enterprise Architecture Framework and in turn contains a method : ADM – Architecture Development Method which is meant for providing the process for developing (Enterprise and Solution) Architectures

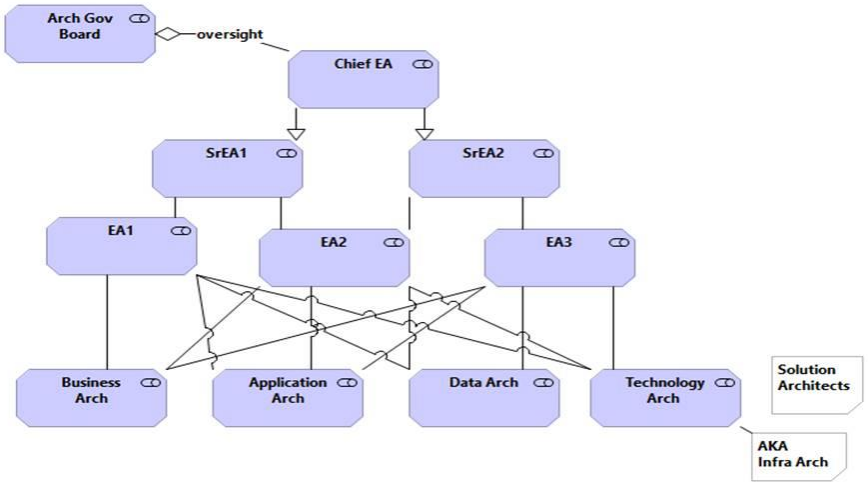
TOGAF in turn may involve Architectural approaches and Patterns, Business models, Technology and other Architectures as also IT Governance. But by itself TOGAF is large superset of all these things and best be referred to as "EA Framework"


Enterprise Architects
Solution Architects
Technology Architects
Strategy - Focused
Depth in Technology

Solution Architects handle individual projects, But under guidance of EA

EA : Envisions, communicates, guides ….. : Strategic Architecture

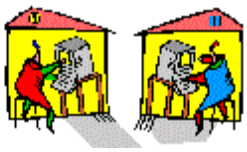
SA : Addresses …. : Segment Architecture (Part of Full Stack Solution Architecture)



Sample EA department

Two Phrases that come up often in TOGAF :

Baseline is Before



Target is After TOGAF Process

TOGAF helps in moving from Baseline : "As is, what is, where is now"

Baseline : As it exists. With or without Computerization or Automation

May be available from legacy

May be created by previous ADM work

Target : "To Be (Future), highly organized " Architecture

Target : What it will be, after our Architecture work is completed

Target for portfolio : How they all will look, integrate and continue to operate

Architects look at **Baseline Architecture** and do all necessary work to move it towards **Target Architecture**

True at **Enterprise wide Level** **EA Project**

True at every **Project Level : Architectural Projects**

Quiz Time

Enterprise Architect gets into one or more IT projects, straightaway. True ?

No. First fixes a Long Term Goal

Call it a Grand Project, if you want

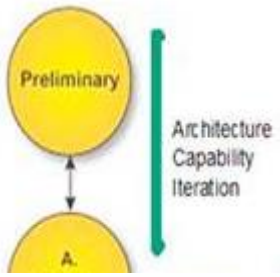
TOGAF calls it EA Project

Quiz Time

EA Project, the Grand Initiative is only about IT. True ?

No. It is much about **Business – IT** alignment

Enterprise Project warranted ?



Requires

ADM – Architectural Development Method

What is the Business – IT alignment expected here ?

Punch Phrases :

Building an Architectural Capability

reduce OPex of the IT estate

reduce CAPex through Cloud enablement

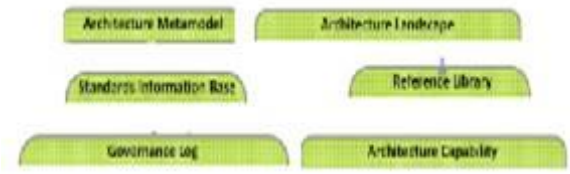
IT rationalization

TOGAF, as we know so far, involves :

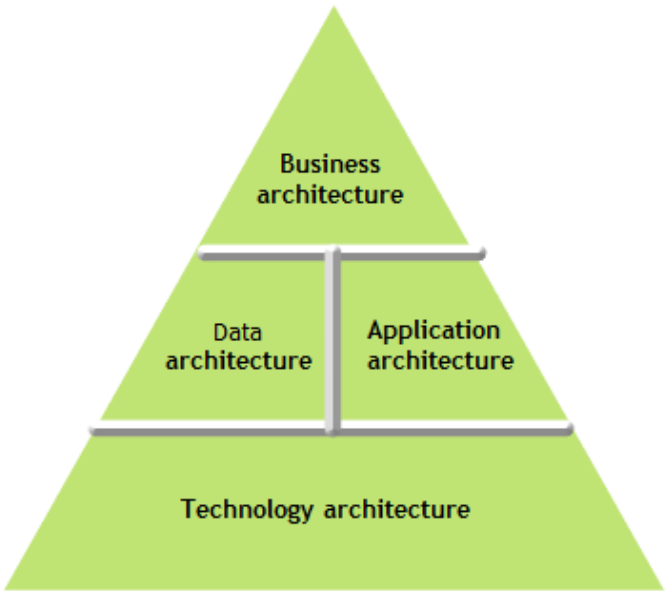
Balance between IT efficiency and Business Innovation

This, in turn needs :

Artifacts – representing Architectural Assets, in a Repository



Evolved from Stakeholder Views. Stakeholder Concerns



Four Architecture 'Domains' Supported by TOGAF

- **Business Architecture,** which covers business strategy, business goals, business processes, functions, and business organization

- **Data Architecture** dedicated to the organization and management of information

- **Application Architecture**, which presents applications, software components, and their interactions

- **Technology Architecture**, which describes the techniques and components deployed, as well as networks and the physical infrastructure upon which the applications and data sources run

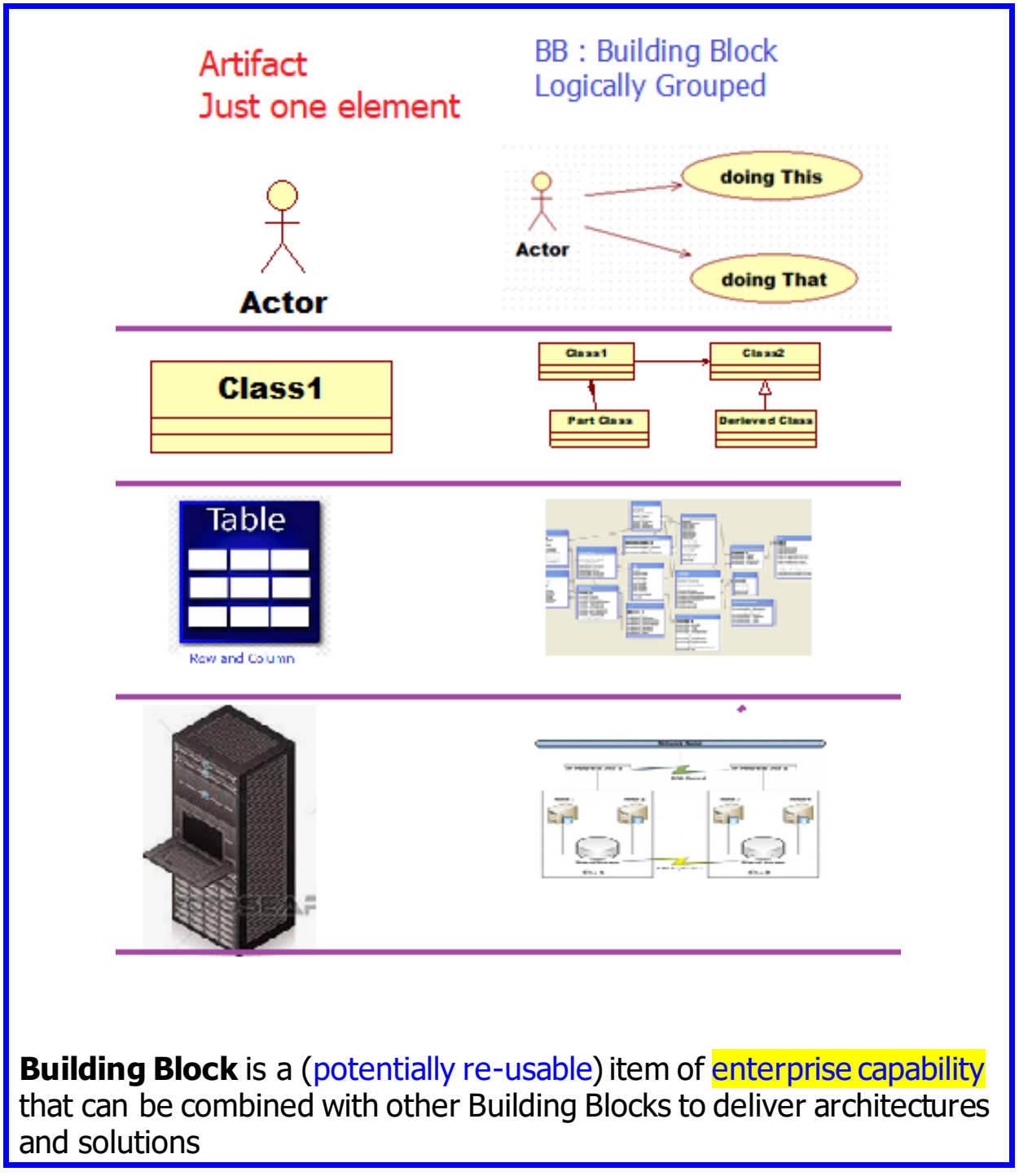
Four Segment Domains of Architecture in TOGAF are

B D A T

Artifact : Architectural Work Piece, fine granular

Artifact = Arch Work Piece Element

Group of artifacts = Building Block = Component

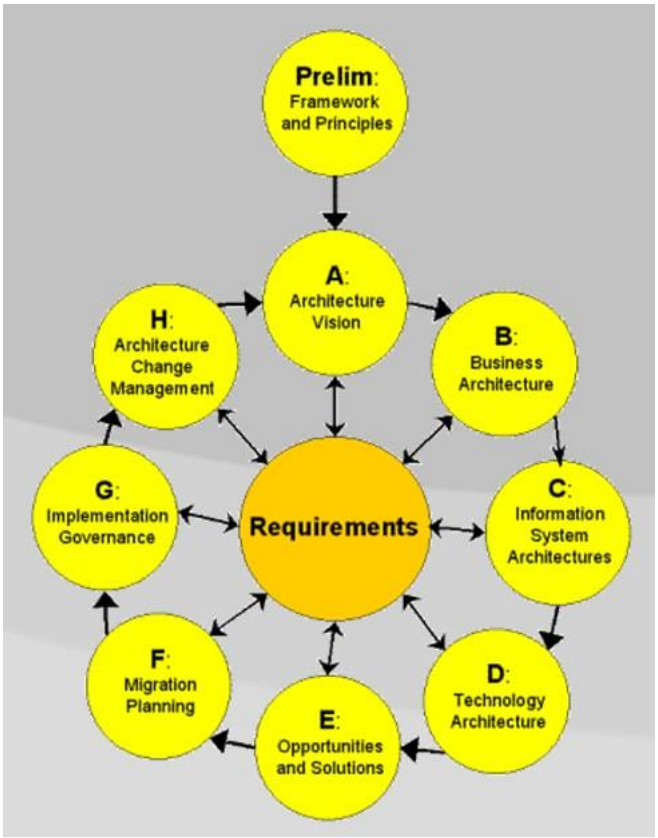


Building Block is a (potentially re-usable) item of enterprise capability that can be combined with other Building Blocks to deliver architectures and solutions

Architecture Landscape : Contains Architectural assets in use presently

TOGAF is an EA Framework which is more

process and re-use structure oriented



How Many ADM Phases ?

Ten : 8 are from A to H. Other Two ?

We are talking about B D A T – Four Segments

But only see Three Phases B C D

How Come ?

TOGAF version 9.2 was released in April, 2018.

TOGAF Standard, Version 9.1 was published in December 2011

TOGAF 10 was launched on April 25, 2022

Enterprise Architecture, and hence TOGAF is meant to give us the **highest level 360 degree view of Architecture for the Enterprise**

Do not expect it to go deeper into any one special Segment or a Single aspect of Architecture

Part 2 : Module 1 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 : What kind of Framework is TOGAF ?

Answer : It is an EAF – Enterprise Architecture Framework

The word Framework is used in many contexts in software and IT. Try to figure out what EAF is all about.

101 Which one of the following best describes TOGAF ?

A. A framework and method for architecture development
B. An architecture pattern
C. A business model
D. A method for developing Technology Architectures
E. A method for IT Governance

Answer : A

Explanation leading to the answer:

TOGAF - The Open Group Architecture Framework is a framework - a detailed method and a set of supporting tools - for developing an enterprise architecture

Framework because it is an EAF : Enterprise Architecture Framework and in turn contains a method : ADM – Architecture Development Method which is meant for providing the process for developing (Enterprise and Solution) Architectures

TOGAF in turn may involve Architectural approaches and Patterns, Business models, Technology and other Architectures as also IT Governance. But by itself TOGAF is large superset of all these things and best be referred to as "EA Framework"

TOGAF should suggest a set of tools and provide a common vocabulary.

Soft Tools : Building Block etc.,

Software Tools : ArchiMate Standard : Like Archi

Like Abacus

: UML Standard: Like Star UML

Or combined Tools

Like Enterprise Architect from Sparx with TOGAF add-In

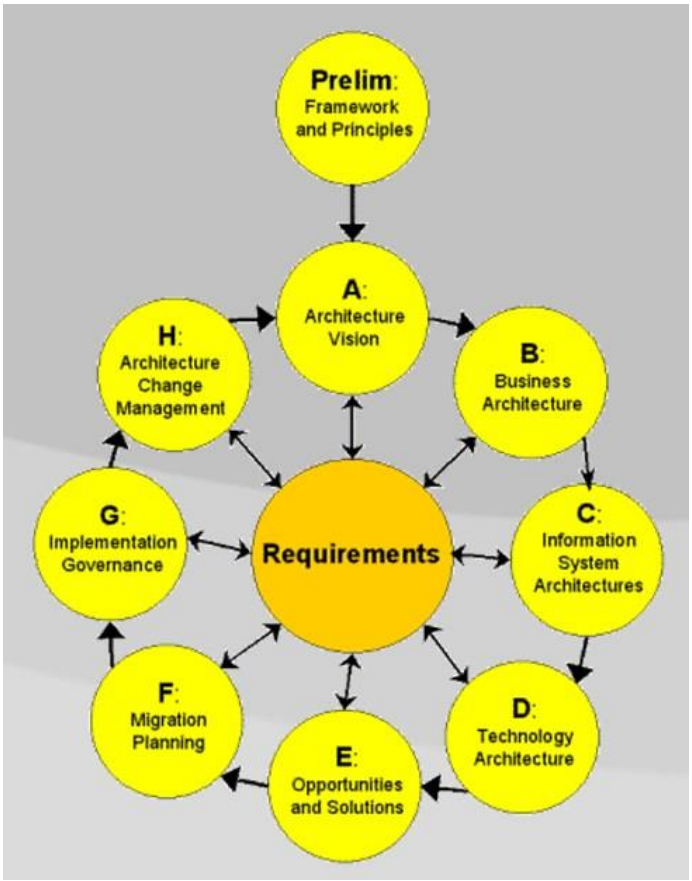
It should also include a

list of recommended standards and compliant products

that can be used to implement the building blocks.

Q : In ADM, there are eight Phases, named A to H only. Right ?

Answer : No. See picture below



Q : In ADM : B D A T – Business, Data, Application and Technology have one Phase each. Right ?

Answer : No. See picture above. Study names of Phases B, C and D

102 Which of the TOGAF architecture development phases includes the development of Data and Application Architectures ?

A. Phase A
B. Phase B
C. Phase C
D. Phase D
E. Phase E

Answer : C

Explanation :

Phase C: Information Systems Architectures describes the development of Information Systems Architectures for an architecture project, including the development of Data and Application Architectures.

Phase C is both about Data Architecture and Application Architecture. It describes these in the development method of Enterprise Architecture. No other Phase is directly about these two.


103

Which of the following statements do not describe an Enterprise ?

A. Collection of organization that has a common set of goals

B. HR departments of two competing companies

C. Division of a Corporation

D. HR department of a Corporation

Answer : B

Explanation :

Two competing enterprises cannot have a common department.

See under : **1.3 Executive Overview**

What is an enterprise ?

The TOGAF standard considers an "enterprise" to be any collection of organizations that have common goals.

For example, an enterprise could be :

■ A whole corporation or a division of a corporation

■ A government agency or a single government department

■ A chain of geographically distant organizations linked together by common ownership

■ Groups of countries or governments working together to create common or shareable deliverables or infrastructures

■ Partnerships and alliances of businesses working together, such as a consortium or supply chain

Be prepared for Level 1 question involving any of the above points.

The idea of providing "Explanation" for each answer is not just to tell you how we arrive at the answer, but also to prepare you for any other question on the topic that is not explicitly listed here.

104  Which one of the following is the reason why the first execution of an ADM cycle will be more difficult than later cycles ?

A. Because management is not familiar with the ADM process

B. Because there are few architecture assets available

C. Because of lack of governance

D. Because of insufficient trained architecture practitioners

E. Because the Baseline Architecture must be fully defined across the enterprise

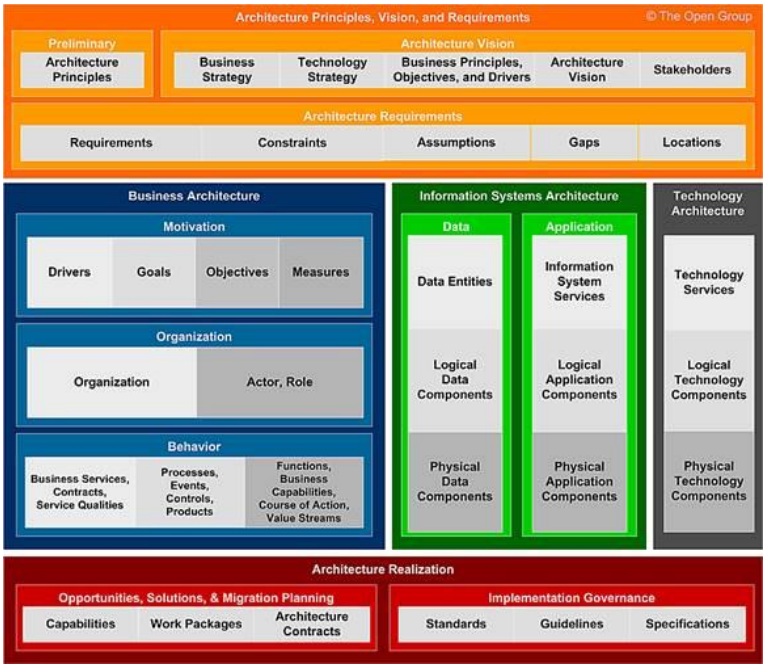
Answer : B

Explanation :

If TOGAF is practiced for the first time and ADM cycle starts, there will be zero to very little architectural assets available in the Architecture Repository. When the projects move through ADM Phases, gradually assets will get added up.

The first execution of the ADM will often be the hardest, since the architecture assets available for re-use will be relatively scarce. Even at this stage of development, however, there will be architecture assets available from external sources such as TOGAF, as well as the IT industry at large, that could be leveraged in support of the effort.

For example: In the Introduction to the Architecture Content Framework in TOGAF you will find a pictorial checklist of the domains, subject areas, or components that are potentially within the scope of an EA project.



The next step is to use this deconstructed material to create practical and useful Architecture Frameworks. Think of TOGAF as a "passive" framework – it is not intended or designed to be actively used in a project or initiative without customization and adaptation. In contrast the active, tailored frameworks that you create **should be designed to address specific needs**.

105  Which of the following is a reason to adapt ADM ?

A. All of the answers below

B. The use of TOGAF is being integrated with another Framework

C. The ADM is being used for a purpose other than Enterprise Architecture

D. The Enterprise is a large Federated Organization

E. The IT governance model needs to be tailored

Answer : A

Explanation :

TOGAF clearly specifies the reasons why every Enterprise should take TOGAF Documentation a first cut one and duly tailor (customize / adapt) it as an Enterprise-Specific one. Important to get to know them.

For B : The Architecture Development Method (ADM) is a flexible process that can be used to support the development of architecture as a stand-alone process, or as an extension to other solution development or project management methods. TOGAF never claims to be a stand-alone framework.

For example, an enterprise may wish to use TOGAF and its generic ADM in conjunction with the well-known Zachman Framework, or another Enterprise Architecture framework that has a defined set of deliverables specific to a particular vertical sector: Government, Defence, e-Business, Telecommunications, etc. The ADM has been specifically designed with this potential integration in mind.

For C : The ADM is a generic method for architecture development, which is designed to deal with most system and organizational requirements. However, it will often be necessary to modify or extend the ADM to suit specific needs. So is it that ADM is tied with EA ?

For D : The term "enterprise" in the context of "enterprise architecture" can be used to denote both an entire enterprise - encompassing all of its information and technology services, processes, and infrastructure - and a specific domain within the enterprise. In both cases, the architecture crosses multiple systems, and multiple functional groups within the enterprise. ADM is useful here.

For E : 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, it needs adaptation.

106  When we sit to change and tailor TOGAF to suit our Enterprise, we should not be doing

A. Changing the Content in certain areas, say be adapting to other frameworks

B. Changing the idea of Enterprise Architecture to Solution Architecture

C. Changing the ADM process by removing Phases and tasks and adding more

D. Changing the TOGAF jargons to ones which we are already using

Answer : B

Explanation :

TOGAF expects its main theme of it being Enterprise Architecture to be maintained during the Tailoring. Similarly, the concepts of core TOGAF Components are to be maintained

Governance : Capability Framework

Enterprise Continuum : with Architecture Repository

ADM : consisting of iterative Phases


107

According to TOGAF, which one of the following best describes an enterprise architecture ?

A. An Architecture of a Commercial Organization

B. An Architecture that consists of more than one subsidiary company

C. An Architecture that crosses multiple systems and multiple functional groups within the enterprise

D. The highest level of Architecture that can be achieved in a given organization

Answer : C

Explanation :

Why not A : An architecture of a commercial organization. Because TOGAF can be applied to ANY enterprise. It can be Government, military, private corporate : Just any "Enterprise"

Why not B : An architecture that consists of more than one subsidiary company. Because TOGAF can apply to a standalone enterprise with or without subsidiaries.

Why not D : The highest level of architecture that can be achieved in a given organization. Because though this statement is true and valid, the question is about description of enterprise Architecture. Not about its level of importance.

108  Which of the following best describes how TOGAF defines an Enterprise ?

A. Any collection of organizations that has a common set of goals
B. Any corporation with more than 10,000 employees
C. Any organization involved in commerce
D. Any organization whose stock is traded
E. Any set of organizations based at the same geographic location

Answer : A

Explanation :

TOGAF defines an Enterprise as any collection of organizations that has a common set of goals. Try to give your own justification for this answer, by attempting to throw out every wrong answer with your own reason.

What is an enterprise?

The TOGAF standard considers an "enterprise" to be any collection of organizations that have common goals. For example, an enterprise could be :

■ A whole corporation or a division of a corporation

■ A government agency or a single government department

■ A chain of geographically distant organizations linked together by common ownership

■ Groups of countries or governments working together to create common or shareable deliverables or infrastructures

■ Partnerships and alliances of businesses working together, such as a consortium or supply Chain

109 Which of the  following statements best describes the purpose of Enterprise Architecture ?

A. To allow an enterprise to exploit the latest trends in technology
B. To enable the CIO to take effective control of the business units across an enterprise
C. To ensure compliance in an enterprise to corporate auditing standards
D. To optimize an enterprise into an environment that is responsive to business needs
E. To provide a set of standards that all actors must adhere to within an enterprise

Answer : D

Explanation :

The purpose of Enterprise Architecture is to optimize an enterprise into an environment that is responsive to business needs.

Try to give your own justification for this answer, by attempting to look at all descriptions but picking the best one, as found in TOGAF documentation.

Why is an Enterprise Architecture needed ?

The purpose of Enterprise Architecture is to optimize across the enterprise the often fragmented legacy of processes (both manual and automated) into an integrated environment that is responsive to change and supportive of the delivery of the business strategy.

Today's CEOs know that the effective management and exploitation of information and Digital Transformation are key factors to business success, and indispensable means to achieving competitive advantage.

An Enterprise Architecture addresses this need, by providing a strategic context for the evolution and reach of digital capability in response to the constantly changing needs of the business environment.

Furthermore, a good Enterprise Architecture enables you to achieve the right balance between business transformation and continuous operational efficiency. It allows individual business units to innovate safely in their pursuit of evolving business goals and competitive advantage.

At the same time, the Enterprise Architecture enables the needs of the organization to be met with an integrated strategy which permits the closest possible synergies across the enterprise and beyond.

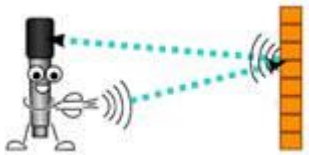
110  According to TOGAF, all of the following are suggested elements of an architecture framework, except _____

A. A common vocabulary
B. A list of recommended standards
C. A method for designing an information system in terms of building blocks
D. A set of structures which can be used to develop a broad range of architectures
E. A system development lifecycle method for software engineering

Answer : E

Explanation :

An architecture framework is a foundational structure, or set of structures, which can be used for developing a broad range of different architectures. It should describe a method for designing a target state of the enterprise in terms of a set of building blocks, and for showing how the building blocks fit together. It should contain a set of tools and provide a common vocabulary. It should also include a list of recommended standards and compliant products that can be used to implement the building blocks.

111 Which one of the following  statements best describes why the ADM should be adapted ?

A. To align it closer to the business

B. To make the use more realistic

C. To move through the cycle faster

D. To suit the specific needs of the enterprise

Answer : D

Explanation :

One reason for wanting to adapt the ADM, which it is important to stress, is that the order of the phases in the ADM is to some extent dependent on the maturity of the architecture discipline within the enterprise.

Another reason for wanting to adapt the ADM is if the TOGAF framework is to be integrated with another enterprise framework

Other possible reasons for wanting to adapt the ADM include:

■ The ADM is one of the many corporate processes that make up the corporate governance Model It is complementary to, and supportive of, other standard program management processes, such as those for authorization, risk management, business planning and budgeting, development planning, systems development, and procurement.

■ The ADM is being mandated for use by a prime or lead contractor in an outsourcing situation, and needs to be tailored to achieve a suitable compromise between the contractor 's existing practices and the contracting enterprise's requirements

■ The enterprise is a small-to-medium enterprise, and wishes to use a "cut-down" method more attuned to the reduced level of resources and system complexity typical of such an environment

■ The enterprise is very large and complex, comprising many separate but interlinked "enterprises" within an overall collaborative business framework, and the architecture method needs to be adapted to recognize this

So, it is better to note the two main reasons as also the other reasons why TOGAF may be adapted by your enterprise in the Preliminary Phase itself before the Architectural projects and project specific work on architecture starts.

Part 3 : Detailed Courseware

Video from Orbus

https://www.youtube.com/watch?v=kpv94Vw6R4c

A six minute video explaining Enterprise Architecture

https://www.youtube.com/watch?v=9TVc32M_gIY&t=13s

A less than six minute video explaining what makes an Enterprise

https://www.youtube.com/watch?v=0b8JjqVfaXE

Watch this in your own without a miss

It is not at all important for Certificate preparation to know about What is new in TOGAF 9.2

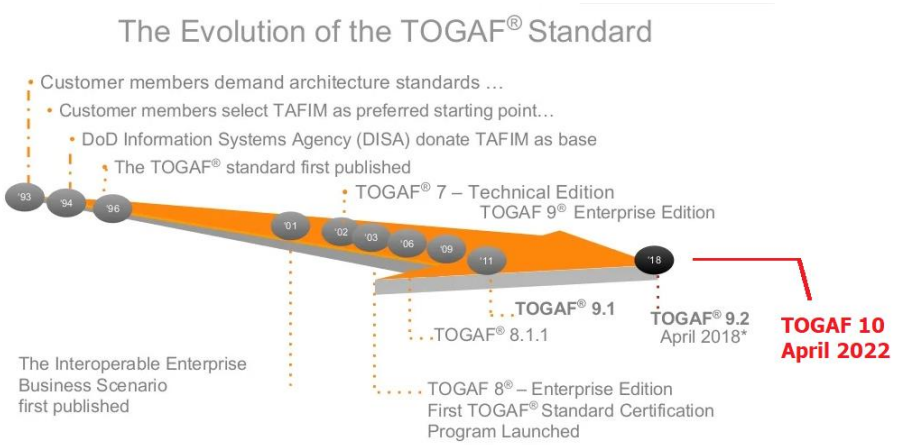
Anyhow this video can be of help, if you are curious

https://www.youtube.com/watch?v=s6BSopFSDEU

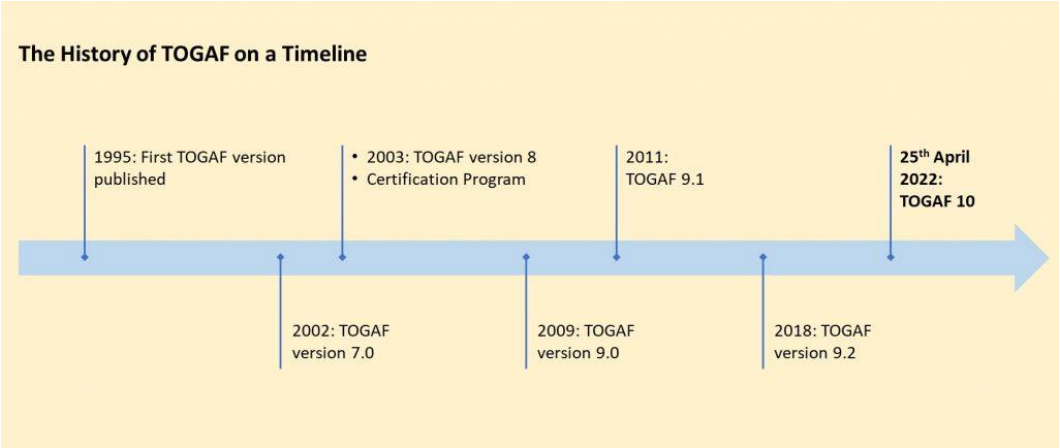
What is TOGAF - An Enterprise Architecture Framework. EAF

The Open Group Architecture Framework

Enterprise Architecture Framework - EAF



TOGAF 9.2 is the latest still for Certification Exam syllabus



Point Gallery

What makes an Enterprise ? Am I in one ?

For Target Enterprise : Means our Client Enterprise

Where exactly would an EAF be applicable ?

All Projects. All of IT- All of Information Technology areas

Current project also : Proposal to completion

Am I an Enterprise Architect, or will I be one ?

Start from current expertise. But elevate yourself to one

At least in 'Feeling good about it' by end of this course

What does TOGAF offer for me in that direction ?

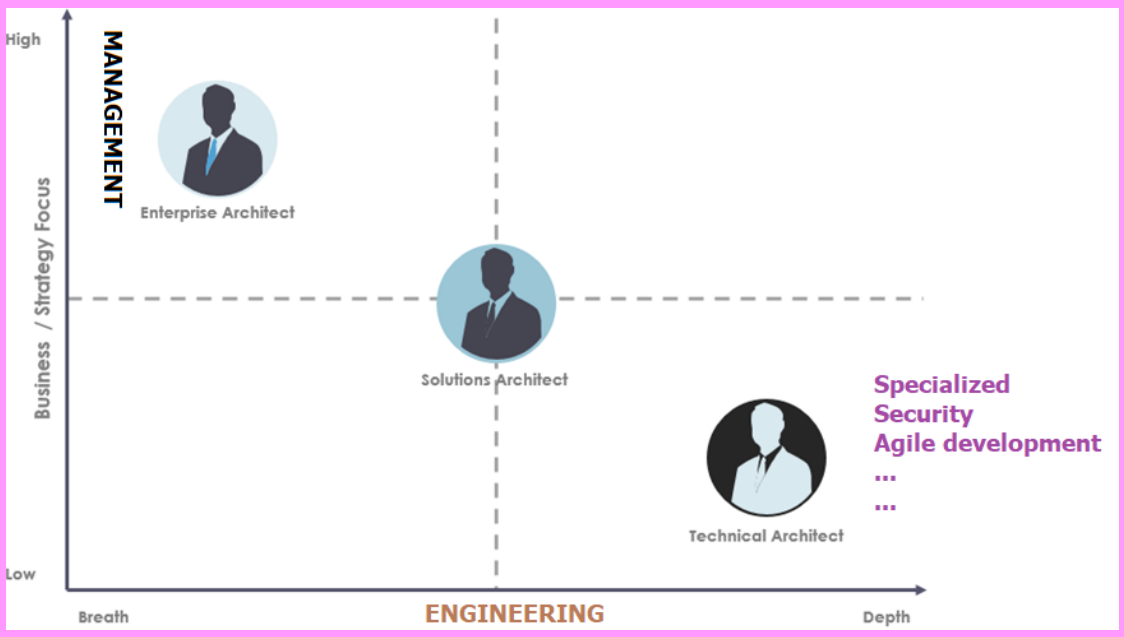
Knowledge Empowerment. Also highly valued Certificate

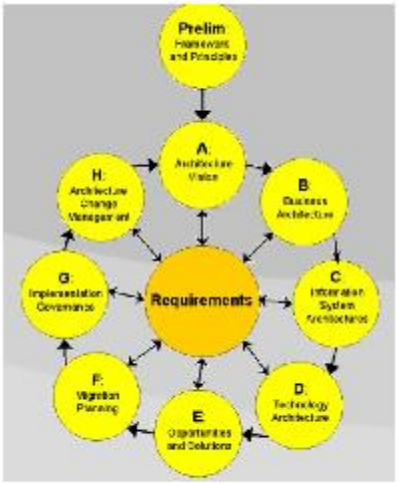
Will I be connected with making of Building Blocks ?

Very much. Your own Arch BB

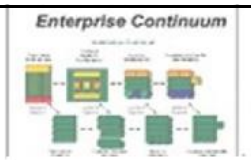
You will align with all others in the target Enterprise

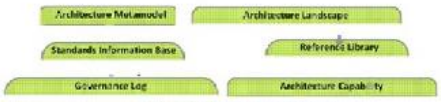
Interaction Point : For Practical purposes beyond Certification

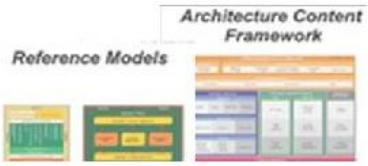




ADM – the Process Methodology







Enterprise Continuum - Store and Retrieve Knowledgebase on Architecture

Capability Framework :
All guidelines, Oversight governance on Enterprise Architecture activities

Nice to Know Box

TOGAF is only a Framework.

And not a watertight Framework for you to follow as it is

You are expected to **adapt ADM** and other portions of TOGAF to suit the practices of your Target Enterprise – Tailoring TOGAF is needed and will be dealt with in detail in later modules

Nice to Know Box

Distinguishing EA from other Architectural Roles

Enterprise Architects are

responsible for many applications

living for many years

Long Term

Enterprise Architects

do not control the functionality of any one project only

Instead, they architect an ecosystem

inside which individual applications / projects / programmes

contribute to the overall Enterprise

Nice to Know Box

Enterprise Architects : Responsible for overall Enterprise Architecture. Prescribe company standards and chair Architecture Review Board.

Domain Architects - (Popularly known as Solution Architects. TOGAF often refers to them as Domain Segment Architects) : (Common in larger Enterprises) : Responsible for the architecture of a particular bounded context within the enterprise (Spanning over Business, Data, Application, and Technology).

Project Architect - (Full Stack Architect) : Responsible for the architecture development of an individual project. Must coordinate with other stakeholders to ensure project success.

Development/Operations/IT Engineers : Responsible for the development of the deployed systems and their daily operations. MSA – Micro Service Architecture is well aligned with DevOps methodologies, emphasizing automation, feedback, and matching of development to production environments. Substantial autonomy is granted at the team level, while **maintaining alignment with Domain and Enterprise Architects on technology selections and roadmaps.**

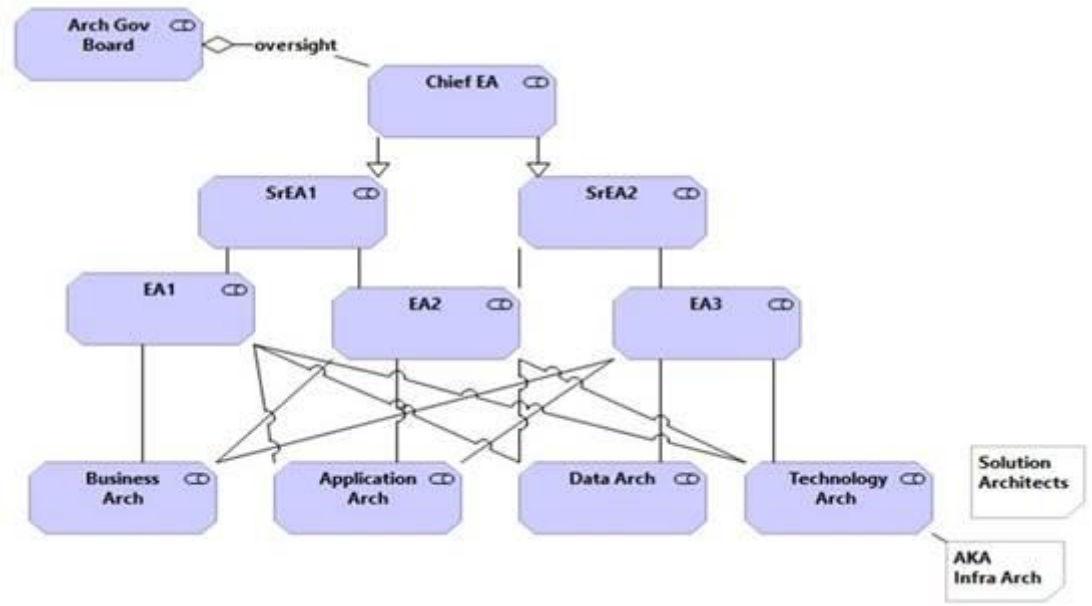
(From TOGAF 10 documentation, Relevant for TOGAF 9.2 also)

Note that TOGAF keeps PMO (Project Management Office of developers) and Operations (delivery of automation) as separate distinct department when compared to EA Department.

Segment Architects handle individual projects, but under guidance of EA

EA : Envisions, communicates, guides ….. : Strategic Architecture

SA : Addresses …. : Segment Architecture (Solution Architecture)



Sample EA department

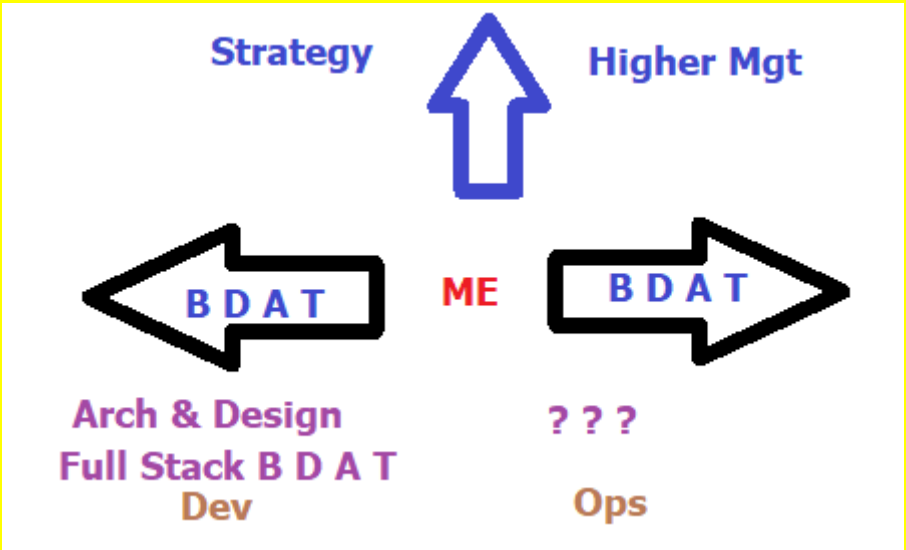
Who is a **just one Segment** Expert ?

Those with just one expertise : D **or** A **or** T with some Business Architecture idea

Who is a **Full Stack Segment** Expert ?

Those with broader expertise : D **and** A and T with some idea of Business Architecture

Who then fits in as Enterprise Architect ?



Expertise in B D A T Needed for EA ?

No. But a broader knowledge expected

More the better

Quiz Time

Enterprise Architect gets into one or more IT projects, straightaway. True ?

No. First fixes a Long-Term Initiative

Current Baseline : Less Mature in Architecture

Target : Higher levels of Enterprise Architecture Maturity

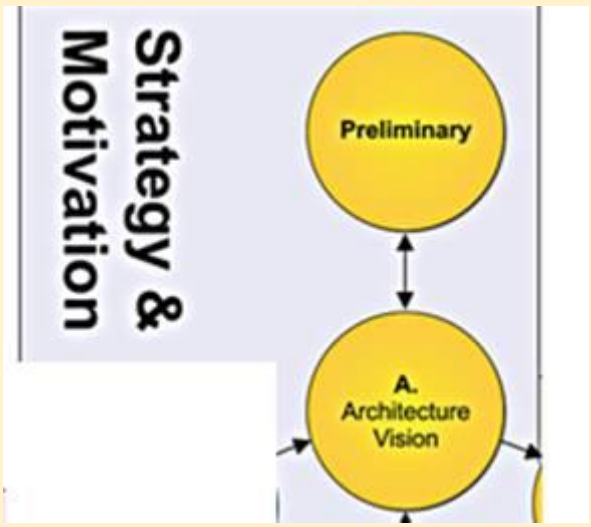
So, have a Long Term Initiative to move towards Target

Pain Points or

Futuristic Outlook of Modernization

Call it a Grand Project, if you want

TOGAF calls it EA Project



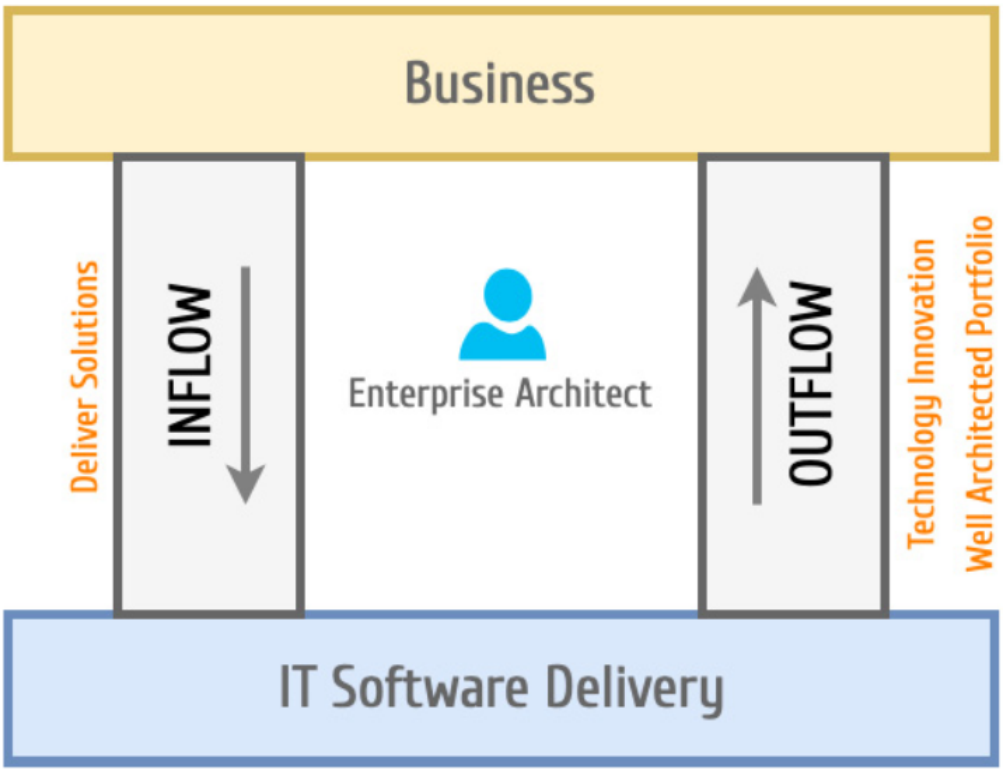
Quiz Time

What is Architectural Landscape ?

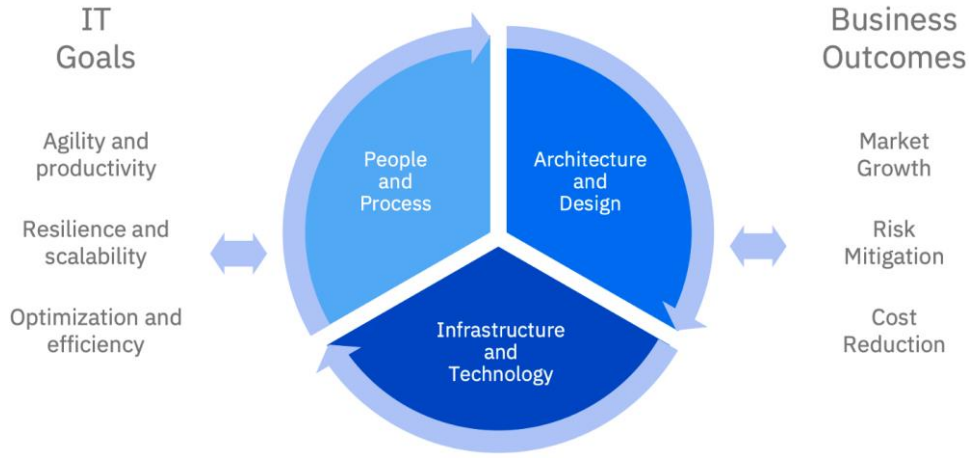
An area where the Architectural assets in use are presently placed on

Nice to Know Box

Business – IT alignment :

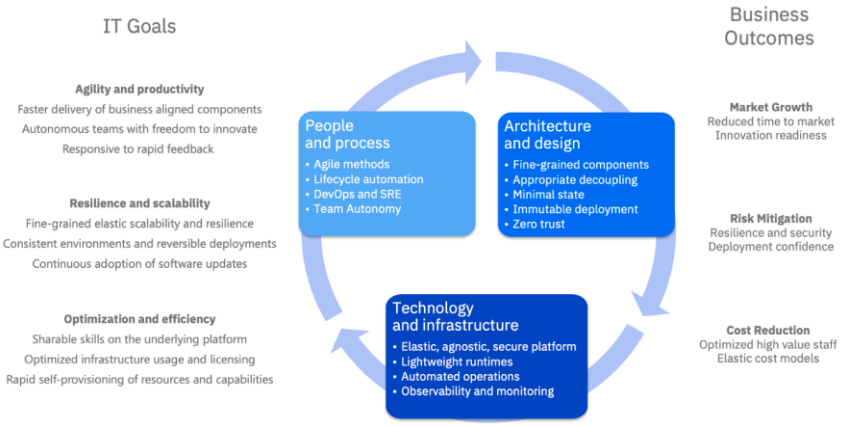


Nice to Know Box



Technology alone cannot attain business outcomes

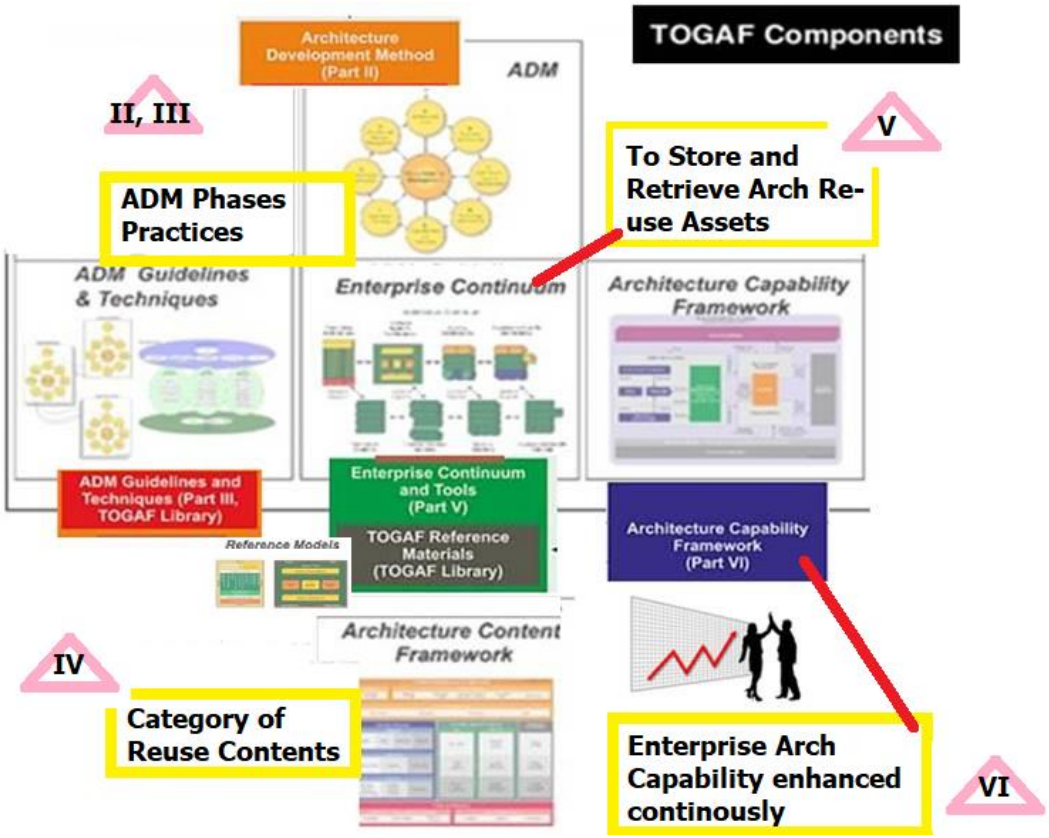
Nice to Know Box



Business IT alignment at highest level of Goal Setting

Think : Do we just have ADM in TOGAF or anything more ?

Answer : No. We have few other Components of TOGAF, but **ADM is most important one**. Wait till we see TOGAF documentation and list the Parts of it, which will get you some idea of the names of such Components



Does EA Initiatives include

Customer facing areas : Devices, Call Centers,

Source Data automation etc., ?

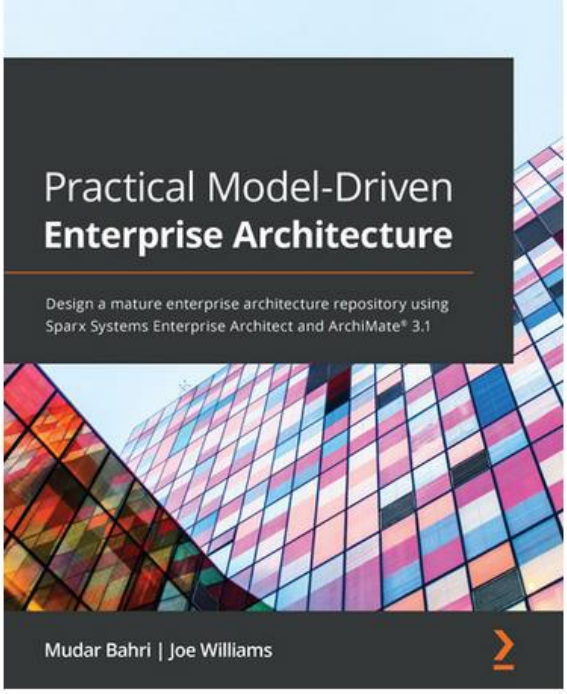
Yes. Very much

Looking into assets and inventories of Software, Data Systems, Infrastructure and the latest kid in the block, Service Inventory ?

Yes. Without doubt

Nice to Know Box

From the excellent Book :



The book starts by addressing the problems faced by Enterprise Architecture practitioners and provides solutions based on an agile approach to Enterprise Architecture. This book is for enterprise architects at all architectural layers and practices of any maturity level. Many of the artifacts suggested in this book are inspired by The Open Group Architecture Framework (TOGAF®).

Enterprise Architecture (EA) is a discipline that promises to bridge the gaps between business and IT by defining the components of an Enterprise and also the relationships among these components. With the increased dependency of businesses of all domains on technology, many organizations want to adopt EA, and most professionals want to be part of this adoption process. However, following a discipline at the entire enterprise level can be full of obstacles because it requires dealing with many people with different interests.

The lack of delivering tangible and useful EA artifacts is the main reason for EA implementation struggles.

Points to Ponder

Scenario Approach : Where would it fit ?

We are supposed to know about the positioning of TOGAF and have an overall idea of the concept behind its due place in the Enterprise

Since TOGAF is an Enterprise Architecture Framework, the Scenario questions would be based on an Enterprise

So, try to see if any of the following points are against the idea of TOGAF as seen so far

This Enterprise has partners such as Suppliers and Customers as part of its IT Architecture coverage. Is it Ok ?

Yes

Can an EA Initiative focus on a Single project as its long term focus ?

Unlikely. It is expected to look into complete IT Landscape including running and new projects and systems

Can an EA Initiative focus on existing brownfield projects ?

Yes. Usually some of these legacy projects may require re-engineering and even integration with newer projects

Can an EA Initiative focus on a Single areas such as examining and improving Security Architecture across all its IT systems ?

Possible. Long Term Initiative can have focus on Security across Enterprise. In practice this is taken up along with all other Greenfield projects, Refactored Brownfield projects, automating legacy non-automated systems and in integrating them all

Enterprise Architect MUST be the master of all : Business, Data, Application and Infrastructure areas of Architecture and every little portion of it

No. But must have a good idea of Business aligned to IT in the Enterprise. When it gets to individual projects, the Enterprise Architect must be able to delegate the respective areas of work to D A T Architects in a guidance capacity

This is akin to Manager of a large restaurant who need not be an expert with details of cooking, serving or billing-accounting and so on. But must be in a position to manage all the people and the task of aligning all their work with respect to the Business and the Stakeholders (Owners, Customers, Suppliers, Government authorities and so on) lies very much on the shoulder of the Manager. He is **more of a 'management' role** though cooking technology, catering technology and so on is not out of his ecosystem.

Nice to Know Box

A **Concept and Body of Knowledge**

for assisting in the

acceptance, production, use, and maintenance of

Enterprise Architecture

in the form of Best Practices

TOGAF is not a tool but a framework to implement the Enterprise Architecture in an organization

Beat Practices – Yes. How to - Yes

Precise Practices, How exactly, What is the actual Architectural solution – NO

Do not expect these in TOGAF. We learn, then get Certified. Thereafter we use our experience over Best Practices to move towards precise solution. TOGAF is not expected to contain these.

It is a Framework. EAF. Not a Solution Answer Stack

Expect 'What to do' in Architecture, that too in Enterprise Architecture area

Do not expect 'how to do it' answers in anything

Do not expect Solution Architecture details here

TOGAF is all about Enterprise Architecture, and the way it influences Solution Architecture

Nice to Know Box

Different Architecture Roles

Here is a deep dive into the different types of Architects and their roles in an Enterprise

What is An Enterprise Architect

An Enterprise Architect is one of the senior-most positions in the Architecture Team hierarchy. Enterprise Architects ensure that an Enterprise's strategy aligns with its goals. Enterprise Architects have the most overarching view of the entire organization and knowledge of its capabilities and potential. They help companies drive change - to cut costs, grow markets, introduce new products. To be better in Architecture Capability.

Enterprise Architects analyze and keep up with current trends in IT Architecture and disseminate their findings of new frameworks and best practices. They focus mainly on capability development, supporting the current operating model, enterprise-wide software and services selection.. They are also in charge of crafting how the Enterprise will evolve at a portfolio-planning level and are usually responsible for determining which changes will happen.

Enterprise Architects work across the entire organization, determining the needs of a range of business units and processes. They also ensure that business units have the right tools to gear them up for success.

Many confuse Enterprise Architecture with Solution Architecture at Enterprise Scale — that is, it is about creating solutions for big companies. That is not Enterprise Architecture, although EA does impact the solution development. EA goes beyond the solutioning of a product and is focused on the structure of the enterprise and its technology.

What is A Solution Architect

As the name suggests, Solutions Architects are required to provide solutions to businesses. Solution architects evaluate business requirements and constraints and turn these into solutions, products, or services through IT related technologies. They comprise quite a number of processes and sub-processes that are guided by distinct Enterprise Architectural perspectives.

Solution Architecture involves broadening client demands to comprise business needs linked to technology. This includes carefully looking at how the various components of business, information, and hosting platform / infrastructure technology can be applied to solve a specific problem. Simply put, Solution Architecture integrates technical business needs into real IT solutions while also outlining guidelines and directives for spot-on advancement and implementation.

Solution Architects act as a bridge between IT and business operations by ensuring that everybody is on the same wavelength while developing and implementing technical solutions for business issues. They are the link between Enterprise Architects and specific Technology Architects. Moreover, they translate the design into a concept for IT operations and ensure that each solution developed has proper technical integrity.

Different Domain Segment Architects :

They are the most hands-on of the three types of Architects. Most Domain Architects focus on a single Architecture Segment Domain. Domain architects have a chief responsibility to ensure their part of the Enterprise works with the other Architecture Domains smoothly.

Using their expertise and skills, Domain Architects put the identify what needs to change in their domain. Ensuring the complete solution support the strategy or portfolio defined by the Enterprise Architect.

We should keep in mind that Domain Architects work as a team to provide recommendations and informing stakeholders about any potential risks.

They are the ones who define the structure of a system. Often during implementation projects, they will perform a key architecture governance role and oversee parts of the change program to achieve the result. They are also the closest to the Enterprise's end-user among all Architects.

Domain architects include :

- Security Architect
- IT Architect
- Application Architect
- Data Architect
- Business Architect

Enterprise Architecture Domains

Domain Architecture is the building block of Enterprise Architecture. Domains are often developed independently in initial stages (as ABB – Architectural Building Blocks in TOGAF parlance) and then brought together (as SBB – Architectural Building Blocks in TOGAF parlance) to form a complete unit of Enterprise Architecture. So what are these different types of domains ?

Business Architecture Domain

Business Architecture creates the foundation for all other Architectural Domains. The Business Architecture Domain will explain the operational practices, operating models, organization, and information flow of the Enterprise. It aids the development of the target state and supports the improvement of business operations.

Security Architecture Domain

This is often also called Information Systems Security Architecture. Many people assume that this involves only the traditional security of a firewall, proxies, etc., But it also encompasses business and information security. Essentially, a Security Architect develops the controls that effectively manage the risk associated with information and information technology.

Information / Data Architecture Domain

This defines and describes the guidance, structure, standards, and relationship of the information with other objects in an Enterprise. It usually encompasses applications, data, infrastructure, and other technology. You should keep in mind that data is the backbone of all organization activities.

Application Architecture Domain

Application Architecture focuses on critical constraints about the software and integration. It specifies whether we should use commercial software, large suites, or custom development to support different business activities. System boundaries and integration standards are critical for Application Architecture Domains.

Infrastructure Architecture Domain

This is focused on the hosting platform technology or infrastructure that supports applications, data, and communications. The main emphasis for this domain is usually on the Nonfunctional characteristics of a solution.

It outlays all infrastructure-related components needed to fulfill the Non Functional requirements such as availability, stability, security, scalability, operability, and extensibility.

Newer domains are cropping up in the market every day and we have to continually absorb them. Some of these newer domains include :

Cloud Architecture Domain

The increasing popularity of cloud services has significantly altered how we address Infrastructure Architecture and Application Architecture. These domains are usually based on cloud infrastructure and are supported using cloud storage.

Service-Oriented Architecture Domain

These focus on providing impeccable service to the end client through a product. It focuses on how service can be improved and the criteria for improving the service through technology. Tends towards Microservice Architecture.

Quiz Time

TOGAF Course will suit anyone not knowing much about any Architecture. True ?

No. it will not. The Entry criterion is that of being an Architect

It is not about just basics of Architecture. It is at the highest level of Architecture, duly called Enterprise Architecture.

The Enterprise Architect, when on the job, will have to have high level (not detailed) knowledge of various Architectures that prevail over Business, Data, Application and also the IT and Software Engineering as also Technology and Platforms and the Infrastructure.

Clearly note that for Certification knowledge, the level of coverage in this course and especially the Questions, Explanation and Answers in pdf files are sufficient.

About Just 'Architecture'

- Network Architecture
- Data Access Architecture
- UI Architecture
- .....

Specialty Areas in Architecture

- Security Architecture
- Cloud Architecture
- SOA / Microservices
- ....

Nice to Know Box

Enterprise Architecture Frameworks

A strategic approach to architecture that addresses a whole Enterprise

Zachman is an EA framework which is

classification and documentation oriented :

Example EAFs in practice :