COURSEWARE

Courseware based on the TOGAF® EA - Practitioner - Revised Edition

Courseware based on the

TOGAF® EA - Practitioner

-

Revised Edition

Colophon

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Direct reference to advised literature is also regularly covered in the slides so that students can find additional information concerning a particular topic. Although the courseware is complete, the possibility that the trainer deviates from the structure of the sheets or chooses to not refer to all the slides or commands does exist.

The student always has the possibility to cover these topics and go through them in their own time. It is recommended to follow the structure of the courseware and publications for maximum exam preparation. The courseware and the recommended literature are the perfect combination to learn and understand the theory.

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	Data Management	Data literacy, Data visualization, DMBOK
	IT Asset Management	HAM, ITAM, SAM
	IT Security Management	BIO, ISO/IEC27001, NIS2
	Test Management	CTAP
	Application Management	ASL
	Other	eCF, IT-CMF, Scrum
Project Management	Project Management	Half Double, ICB, ISO/IEC21500, P3.express, PM2, PMBOK Guide, Praxis, PRINCE2
	Agile	Agile, Agile PM
	Other	PMO
Business Management	Operations Management	Lean, Lean Six Sigma, OBM, OMC, RASCI
	Contract Management	CATS CM, CATS RVM, IACCM World
	Business Information Management	BiSL, DID
	Artificial Intelligence	AI, Generative AI
	Outsourcing	OPBOK
Enterprise Architecture	Enterprise Architecture	BIAN, TOGAF
	Modeling	ArchiMate, BPMN
	Software Architecture	ISAQB
	Other	Open Agile Architecture

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Self-Reflection of understanding Diagram

'What you do not measure, you cannot control.'' – Tom Peters

Fill in this diagram to self-evaluate your understanding of the material. This is an evaluation of how well you know the material and how well you understand it. In order to pass the exam successfully you should be aiming to reach the higher end of Level 3. If you really want to become a pro, then you should be aiming for Level 4. Your overall level of understanding will naturally follow the learning curve. So, it's important to keep track of where you are at each point of the training and address any areas of difficulty.

Based on where you are within the Self-Reflection of Understanding diagram you can evaluate the progress of your own training.

Level of Understanding	*Before Training (Pre-knowledge)*	*Training Part 1 (1st Half)*	*raining Part 2 (2nd Half)*	*After studying / reading the book*	*After exercises and the Practice exam*
Level 4 ***I can explain the*** ***content and apply it .***					
Level 3 I get it! ***I am right where I am supposed to be.***					Ready for the exam!
Level 2 ***I almost have it but could use more practice.***					
Level 1 ***I am learning but don't quite get it yet.***					

(Self-Reflection of Understanding Diagram)

Write down the problem areas that you are still having difficulty with so that you can consolidate them yourself, or with your trainer. After you have had a look at these, then you should evaluate to see if you now have a better understanding of where you actually are on the learning curve.

Troubleshooting

Problem areas:	***Topic:***
Part 1	
Part 2	
You have gone through the book and studied.	
You have answered the questions and done the practice exam.	

Timetable Foundation

This is a schedule for a two day course – approximate timings:

Day 1		Day 2	
8:00	Module 00	8:00	Module 09
8:30	Module 01	8:30	Module 10
9:00	Module 02	9:00	Module 11
10:00	Module 03	10:00	Module 12
11:00	Module 04	11:00	Module 13
12:00	Lunch	12:00	Lunch
13:30	Module 05	13:30	Module 14
15:00	Module 06	15:00	Module 15
16:30	Module 07	16:30	Module 16
18:00	End of day	18:00	End of day

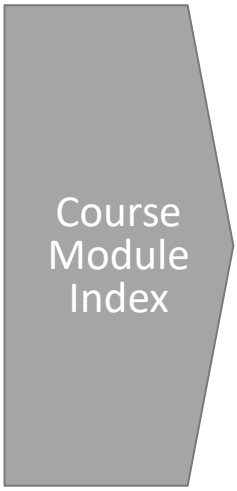
This is a schedule for a three day course – approximate timings:

Day 1		Day 2		Day 3	
8:00	Module 00	8:00	Module 06	8:00	Module 12
8:30	Module 01	9:30	Module 07	9:30	Module 13
10:00	Module 02	11:00	Lunch	11:00	Lunch
11:30	Lunch	12:30	Module 08	12:30	Module 14
13:00	Module 03	14:00	Module 09	14:00	Module 15
14:30	Module 04	15:00	Module 10	15:00	Module 16
16:00	Module 05	16:00	Module 11	16:00	End of day
17:30	End of day	17:00	End of day		

This is a schedule for a four day course – approximate timings:

Day 1		Day 2		Day 3		Day 4	
8:00	Module 00	8:00	Module 06	8:00	Module 11	8:00	Module 16
8:30	Module 01	10:00	Module 07	10:00	Module 12	9:30	Revision/Study
10:15	Module 02	11:00	Lunch	11:00	Lunch	11:00	Lunch
12:00	Lunch	12:30	Module 08	12:30	Module 13	12:30	Case Study end
13:30	Module 04	15:30	Module 10	14:00	Module 14	17:00	End of day
15:15	Module 05	17:00	End of day	15:30	Module 15		
17:30	End of day	17:00	End of day	17:00	End of day		

Course Module Index



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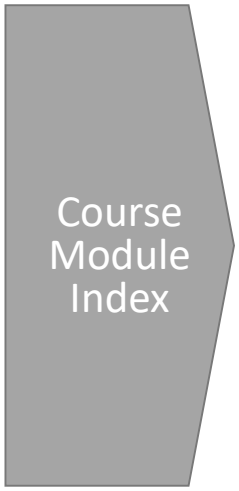
TOGAF® EA Training - Practitioner

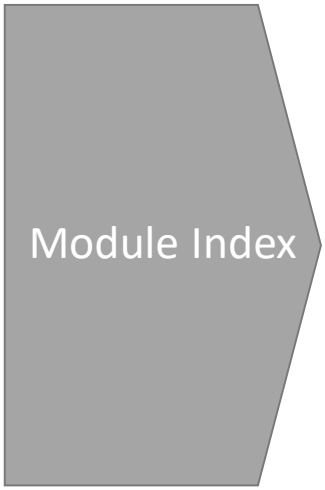
TOGAF® Standard, 10th Edition

Module 08
The Context for Enterprise Architecture

Course Module Index



Module Index



The purpose of Enterprise Architecture – 01/02

LS – 1.1
Q-1.1,p6
S-1.1,p5

To guide effective change

All Enterprises are seeking to make improvements e.g.:
- Shareholder value
- Agility
- Mandate-based value proposition
- Efficiency
- Improvement of mission

It is also used by the stakeholders to govern any change

Governance
Part 1: direct change activity
- Part 2: control the change activity

An architecture methodology serves to validate both the objective and the change

Implementation means “the process of putting a decision or plan into effect” …

Source: TOGAF® - A Practitioners’ Approach to Developing Enterprise Architecture Following the ADM : Page 8 : §3.1

Level=2 : L.O.= 1.1a : Explain why guiding effective change is the purpose of Enterprise Architecture.
Source: TOGAF® Series Guide: A Practitioners’ Approach to Developing Enterprise Architecture Following the TOGAF® ADM : Page 8 : §3.1

To guide effective change
All Enterprises are seeking to make improvements e.g.:
- shareholder value
- agility
- mandate-based value proposition
- efficiency
- improvement of mission

It is also used by the stakeholders to govern any change Governance
- Part 1: direct change activity
  align the change with the optimal path to realizing the expected value
- Part 2: control the change activity
  ensure the change stays on the optimal path

An architecture methodology serves to validate both the objective and the change, providing:
- rigorous planning
- change governance methodology

Implementation means “the process of putting a decision or plan into effect” …
substitute the words transformation, change, program execution, deployment to align with your preferences.

3.1 Why is it Important to Develop an Enterprise Architecture?
An EA is developed for one very simple reason: to guide effective change.
All Enterprises are seeking to improve. Regardless of whether it is a public, private, or social enterprise, there is a need for deliberate, effective change to improve. Improvement can be shareholder value or agility for a private Enterprise, mandate-based value proposition or efficiency for a public Enterprise, or simply an improvement of mission for a social Enterprise.

... continued in Reference in Notes §1 above

The purpose of Enterprise Architecture – 02/02

LS – 1.2
Q-1.2,p7
S-1.2,p6

EA must describe the future state to enable an understanding of what must be done to meet the Enterprise's

- Goals
- Objectives
- Mission
- Vision

A good EA facilitates effective

- Governance
- Management
- Risk management
- Exploitation opportunities

The Gaps List makes obvious what must change and the implications

The same concepts readily address the end state

The essential difference is what the documented architecture looks like.

Source: TOGAF® - A Practitioners' Approach to Developing Enterprise Architecture Following the ADM : Page 8 : §3.1

Level=2 : L.O.= 1.1a : Explain why guiding effective change is the purpose of Enterprise Architecture.
Source: TOGAF® Series Guide: A Practitioners' Approach to Developing Enterprise Architecture Following the TOGAF® ADM : Page 8 : §3.1

EA must describe the future state to enable understanding of what must be done to meet the Enterprise's:

- goals
- objective
- mission
- vision

A good EA facilitates effective:

- governance
- management
- risk management
- exploitation opportunities

What must change = The gap between the Enterprise's current and future state highlights.
The Gaps List makes obvious what must change and the implications :

- is the proposed project in alignment with what is needed?
- in alignment with priority?
- in alignment with the complete set of goals and objectives?

The same concepts address both big and little questions – the:

- methods
- techniques
- frameworks

readily address the end state, preference trade-off, and value realization.
The essential difference is what the documented architecture looks like.
While the scope of the system varies, all of the concepts remain the same.

3.1 Why is it Important to Develop an Enterprise Architecture?

... continued in Reference in Notes §1 above

What Enterprise Architecture looks like – 01/02

LS – 1.4
Q-1.4,p9
S-1.4,p8

Request for Architecture Work identifies the EA Landscape.

Architecture Projects populate the EA Landscape.

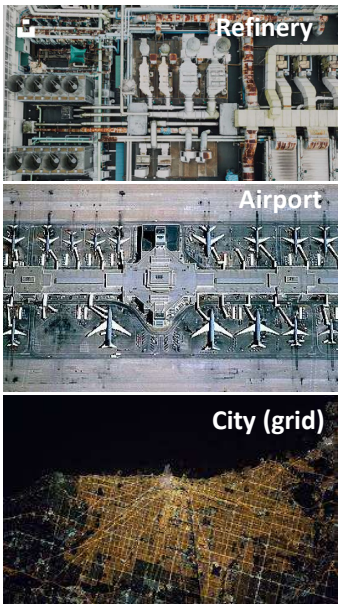
Architecture describes the current and target Architecture.

Models can vary in formality:
Some strictly conforming to a semantically constrained structure.
Others are quite flexible.

The primary purpose of the models is to facilitate the architect in understanding how a system can be most effective.
A secondary purpose is re-use – it is inefficient to re-describe.

Note also:

- The efficiency of consistency is balanced against the extra energy to describe more than is needed
- Formal models are substantially easier to extend across work teams
- Formal models require semantic precision
- Requires good model definition
- Architecture Projects may have unique aspects
- Practitioners must trade off - re-use versus optimal fit



Source: TOGAF® - A Practitioners' Approach to Developing Enterprise Architecture Following the ADM : Page 15 : §3.2.3

Level=2 : L.O.= 1.2a : Explain what an Enterprise Architecture looks like.
Source: TOGAF® Series Guide: A Practitioners' Approach to Developing Enterprise Architecture Following the TOGAF® ADM : Page 15 : §3.2.3

Request for Architecture Work identifies the EA Landscape.
Architecture Projects populate the EA Landscape.
What actually gets written down?:
1. Models, in the EA Landscape
2. Views derived from the EA Landscape
3. Other useful things

Architecture is the:
- set of models
- the components
- their relationships

to describe the current and Target Architecture. Models can vary in formality, some strictly conforming to a semantically constrained structure, while others are quite flexible.

The primary purpose of the models is to facilitate the architect to:
- understand the system works today
- understand how it can be used most effectively
- understand the implications and impacts of the change.

A secondary purpose is re-use – it is inefficient to re-describe.
Note too:
- The efficiency of consistency is balanced against the extra energy to describe more than is needed.
- Formal models are substantially easier to extend across work teams
- Formal models require semantic precision
- Requires good model definition
- Architecture Projects may have unique aspects

... continued in Reference in Notes §1 above

What Enterprise Architecture looks like – 02/02

Farringdon Station, London

Every model that is produced and maintained has a price in effort.

All approaches to modelling – formal/informal and broad/narrow – are trade-offs.

Models are consistent representations of things to be understood and analysed.

But models are partial representations of the whole.
Example:
A balance sheet –
- A great model to outline part of an organization's financial position
- Requires skill to read
- Silent on the success, margin, or lifecycle of products

Models are poor general communication tools constrained to exactly tell part of a story.

The best communication comes down to views, and "other useful things" - purposefully open-ended.

Source: TOGAF® - A Practitioners' Approach to Developing Enterprise Architecture Following the ADM : Page 15 : §3.2.3

Level=2 : L.O.= 1.2b : Explain what an Enterprise Architecture looks like.
Source: TOGAF® Series Guide: A Practitioners' Approach to Developing Enterprise Architecture Following the TOGAF® ADM : Page 15 : §3.2.3

Every model that is produced and maintained has a price in effort
Typically:
- narrow, special-purpose models facilitate detailed analysis
- broad models facilitate inclusive analysis.

All approaches to modeling – formal/informal and broad/narrow – are trade-offs.
A core unified model can provide a common bridge between discrete models.
The more important a model is to analysis, the more important is the need and clarity of linkage across models.
Models are consistent representations of things to be understood and analyzed.
But models are partial representations of the whole, typically:
- described with a limited language
- requires experience to read
- subject to constraints
- tend to require specialist knowledge
- tend to be ineffective to communicate usefully

Example:
A balance sheet –
- a great model to outline part of an organization's financial position
- requires skill to read
- silent on the success, margin, or lifecycle of products

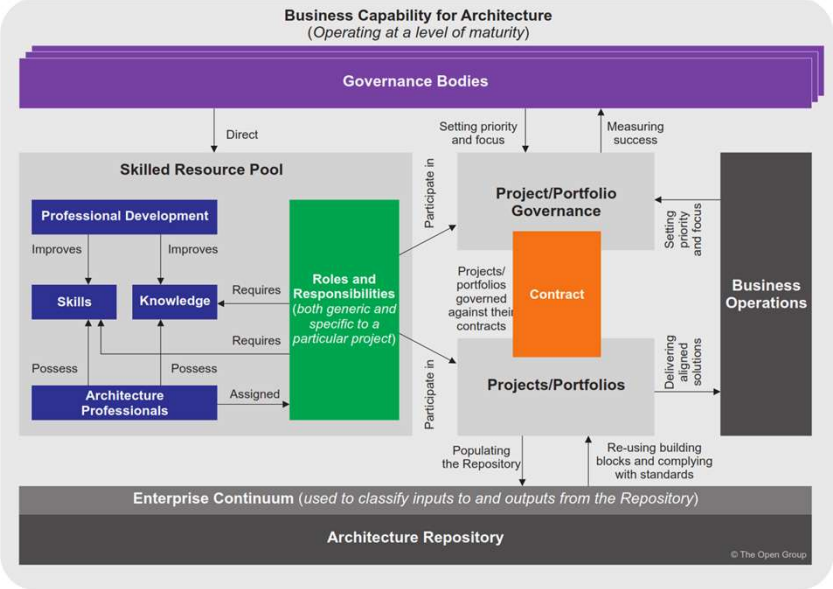
Models are poor general communication tools constrained to exactly tell part of a story.
They carefully render a complex environment into something that represents the world in terms that can be understood, optimized, and compared.
The best communication comes down to views, and "other useful things - purposefully open-ended.

... continued in Reference in Notes §1 above

What an Architecture Capability is – 01/02

LS – 1.1
Q-1.1,p6
S-1.1,p5

To carry out architectural activity it is necessary to put in place an appropriate business capability for architecture, through organization structures, roles, responsibilities, skills, and processes.



Source: TOGAF® - Introduction and Core Concepts : Page 33 : §3.13

Level=2 : L.O.= 1.3a : Explain what an Architecture Capability is.
Source: TOGAF® Standard – Introduction and Core Concepts : Page 33 : §3.13

In order to carry out architectural activity effectively within an enterprise, it is necessary to put in place an appropriate business capability for architecture, through organization structures, roles, responsibilities, skills, and processes.

3.13 Establishing and Maintaining an Enterprise Architecture Capability
In order to carry out architectural activity effectively within an enterprise, it is necessary to put in place an appropriate business capability for architecture, through organization structures, roles, responsibilities, skills, and processes. An overview of the TOGAF® Architecture Capability is shown in Figure 3-9.

What an Architecture Capability is – 02/02

The TOGAF® Content Framework identifies two sets of work products:

i. Work products impacting planning, change governance, and benefits realization.

ii. Work products that are used within the EA Capability to produce the first set.

Understanding the EA Capability's information requirements requires the following questions to be answered:

- What is the EA Capability's purpose in supporting decision-making and governance?
- What is the Enterprise Content Metamodel?
- What is the structure of the Architecture Repository?
- Are there any other considerations pertinent to the enterprise?
- What are the authority, access, and planning divisions for the EA Capability?
- How formal should the documentation and work products of the EA Capability be?

Source: TOGAF® - The TOGAF® Leader's Guide to Establishing and Evolving an EA Capability : Page 52 : §8

Level=2 : L.O.= 1.3b : Explain what an Architecture Capability is.
Source: TOGAF® Series Guide: The TOGAF® Leader's Guide to Establishing and Evolving an EA Capability : Page 52 : §8

The TOGAF® Content Framework identifies two sets of work products:

i. work products that impact planning, change governance, and benefits realization
ii. work products that are used within the EA Capability to produce the first set.

Understanding the EA Capability's information requirements requires the following questions to be answered:

- What is the EA Capability's purpose in supporting decision-making and governance?
- What is the Enterprise Content Metamodel?
- What is the structure of the architecture repository?
- Are there any other considerations pertinent to the enterprise?
- What are the authority, access, and planning divisions for the EA Capability?
- How formal should the documentation and work products of the EA Capability be?

If using a well-established Content Framework, such as Defense with DoDAF, all of the decisions regarding Content Metamodel and Content Framework have been made by DoDAF.

8 Customization of Architecture Contents and Metamodel

The TOGAF® Framework identifies two central concepts: a Content Framework and a Content Metamodel. The TOGAF® Content Framework describes the types of work products that will be consumed and produced by an EA Capability. A subset of these will be a formal description or architecture description of a system including the components and their inter-relationships. This subset is the Content Metamodel. Both must be customized based upon the purpose of the ...

continued in Reference in Notes §1 above

The role of Architecture Governance - 01/02

Two distinct things must be governed:

- The development of the Target Architecture
  - to support the organization's leadership in directing and controlling change
- All changes within the scope of the Target Architecture
  - to validate developing a good target that provides an organization's best achievable course forward

Central to the definition of governance is: "directs and controls".

Typically, the Enterprise Architect and implementer are directed and (partly) controlled by the stakeholder.

Baseline

Target

Source: TOGAF® - A Practitioners' Approach to Developing Enterprise Architecture Following the ADM : Page 108 : §15.1

Level=2 : L.O.= 1.4a : Explain the role of Architecture Governance and the role of an Enterprise Architect.
Source: TOGAF® Series Guide: A Practitioners' Approach to Developing Enterprise Architecture Following the TOGAF® ADM : Page 108 : §15.1

Two distinct things must be governed:

- the development of the Target Architecture
  - to support the organization's leadership in directing and controlling change
- all changes within the scope of the Target Architecture
  - to validate developing a good target that provides an organization's best achievable course forward

Central to the definition of governance is: "directs and controls".
Typically, the Enterprise Architect and implementer are directed, and partly, controlled by the stakeholder.

15.1 What is Governed and Why?

Two distinct things must be governed. First, the development of the Target Architecture. Second, all change within the scope of the Target Architecture. Without the first, the Practitioner cannot support their organization's leadership in directing and controlling change. Without the latter, there was no point in developing a good target that provides an organization's best achievable course forward. Central to the definition of governance is "directs and controls". Typically, the Practitioner and implementer are directed, and both are controlled by the stakeholder. This chapter will use the terms direct and control for focus.

The role of Architecture Governance – 02/02

Architectural Governance is necessary to ensure that solutions achieve business targets.

Governance should be: a collaborative and continuous effort.

The role of the governor is:

- An intelligent advisor embedded within a team
- Not an occasionally visiting policeman

The value to Agile Architecture is to provide:

- The set of principles and policies to guide the implementation
- The set of standards and compliance considerations
- Surety that the proper governance structures and approvals are in place but in a way that will not constrain the pace of Agile development

The architect has a **consultative** role in this.

Source: TOGAF® - Enabling Enterprise Agility : Page 22 : §4.4.4

Level=2 : L.O.= 1.4b : Explain the role of Architecture Governance and the role of an Enterprise Architect.
Source: TOGAF® Series Guide: Enabling Enterprise Agility : Page 22 : §4.4.4

Architectural governance is necessary:
- to ensure that solutions achieve business targets
- to address compliance and regulatory requirements
- to ensure integrity of the overall endeavour through levels of architecture solution implementation
- as a key component of risk management
- as a role in providing feedback up through architecture levels when unforeseen difficulties emerge during implementation

Governance should be a collaborative and continuous effort:
- between architecture teams at different levels
- between architects and delivery teams
- key to maintaining good communication and engagement between the different autonomous teams
- provide guidance
- give them the required freedom to deliver.

The role of the governor is:
- an intelligent advisor embedded within a team
- not an occasionally visiting policeman

The value to Agile Architecture is to provide:
- the set of principles and policies to guide the implementation
- the set of standards and compliance considerations
- surety that the proper governance structures and approval are in place but in a way that will not constrain the Agile development pace

The architect has a consultative role in this.

... continued in Reference in Notes §1 above

Architecture Compliance - levels of conformance reviews – 01/02

LS – 1.2
Q-1.2,p7
S-1.2,p6

- Understand clearly the objectives of those soliciting the review; and stay on track and deliver what was asked for.
- If it becomes obvious during the discussions that there are other issues that need to be addressed, outside the scope of the requested review, bring it up with the meeting chair afterwards.
- Stay "scientific“ …
- Ask "open" questions; i.e., questions that do not presume a particular answer.
- There are often "hidden agendas" or controversial issues among those soliciting a review.
- Treat those being interviewed with respect - they do the best they can under the circumstances in which they are placed.
- Help the exercise become a learning experience for you and the presenters.
- Reviews should include detailed assessment activities against the architectures.

Source: TOGAF® - Enterprise Architecture Capability and Governance : Page 52 : §6.6.2

Level=2 : L.O.= 1.5a : Explain Architecture Compliance levels of conformance reviews and the role of the architect.
Source: TOGAF® Standard – Enterprise Architecture Capability and Governance : Page 52 : §6.6.2

- Understand clearly the objectives of those soliciting the review; and stay on track and deliver what was asked for. For example, they want to know what is right or wrong with the system being architected; not what is right or wrong with the development methodology used, their own management structure, etc.
- If it becomes obvious during the discussion that there are other issues that need to be addressed, outside the scope of the requested review, bring it up with the meeting chair afterwards.
- Stay "scientific“ … instead of "We like to see large databases hosted on ABC rather than XYZ.", say "The downtime associated with XYZ database environments is much greater than on ABC database environments. Therefore we don’t recommend hosting type M and N systems in an XYZ environment."
- Ask "open" questions; i.e., questions that do not presume a particular answer.
- There are often "hidden agendas" or controversial issues among those soliciting a review, which you probably won’t know up-front. A depersonalized approach to the discussions may help.
- Treat those being interviewed with respect. They may not have built the system "the way it should be", but they probably did the best they could under the circumstances in which they were placed.
- Help the exercise become a learning experience for you and the presenters.
- Reviews should include detailed assessment activities against the architectures and ensure that the results are stored in the Enterprise Continuum.

6.6.2 Conducting Architecture Compliance Reviews

○ Understand clearly the objectives of those soliciting the review; and stay on track and deliver what was asked for. For example, they typically want to know what is right or wrong

… continued in Reference in Notes §1 above

Architecture Compliance - levels of conformance reviews – 02/02

1	Were the correct stakeholders identified?	Yes - proceed	No - direct the architect to engage with the stakeholders appropriate to the scope of the architecture being developed.
2	Were constraints and guidance from the superior architecture taken into account?	Yes - proceed	N0 - direct the Practitioner to perform their job and take into account guidance and constraints from the superior Architecture. Where the Practitioner identifies a conflict, obtain a recommendation on whether to grant relief from the superior architecture or enforce the superior architecture. This decision must be made by the superior architecture stakeholders.
3	Do appropriate SMEs agree with the facts and interpretation of the facts in the architecture?	Yes - proceed	No, the Practitioner has to do their job and engage with the SMEs. Where the Practitioner identifies a conflict with, or between, SMEs, develop a recommendation for the stakeholders that they should have limitations in confidence.
4	Do any constraints or guidance reflect the views produced for stakeholders and any underpinning architecture models and analysis?	Yes - proceed	No, the Practitioner needs to do their job and develop appropriate views that are consistent with analysis.
5	Do the views produced for the stakeholders reflect their concerns and reflect any underpinning architecture models and analysis?	Yes - proceed	No, the Practitioner needs to do their job and develop appropriate views.
6	Do the stakeholders understand the value, and any uncertainty in achieving the value, provided by reaching the target state?	Yes - proceed	No, the Practitioner needs to do their job and develop appropriate views, and other work products, then return to the stakeholders.
7	Do the stakeholders understand the work necessary to reach the target state and any uncertainty (risk) in successfully accomplishing the work?	Yes - proceed	No, the Practitioner needs to do their job and develop appropriate work products and return to the stakeholders.
8	Do the stakeholders understand any limitations in confidence they should have in the Target Architecture?	Yes - proceed	No, the Practitioner needs to do their job and develop appropriate guidance on the limitations in confidence and return to the stakeholders.
9	Have the stakeholders approved the views?	Yes	No

Source: TOGAF® - A Practitioners' Approach to Developing Enterprise Architecture Following the ADM : Page 110 : §15.2.1

Level=2 : L.O.= 1.5b : Explain Architecture Compliance levels of conformance reviews and the role of the architect.3
Source: TOGAF® Series Guide: A Practitioners' Approach to Developing Enterprise Architecture Following the TOGAF® ADM : Page 110 : §15.2.1

15.2.1 Target Checklist

Use the following checklist to execute architecture governance. Good Practitioners understand that only stakeholders can approve architecture. A good governance process will require the Practitioner to demonstrate the following when assessing a Target Architecture:

Architecture Compliance levels

1	Did the organization embarking on a change reasonably interpret the Target Architecture's guidance and constraints?	No - proceed	Yes, their interpretation should be accepted as compliance and any issues addressed through a change to the architecture. This is a key point. Good architecture can have multiple implementation choices, and the implementer is not required to adhere to opinion. If the implementation choice is a reasonable interpretation, it should be judged compliant.
2	Do appropriate SMEs agree with the facts and interpretation of these facts in the impact assessment?	Yes - proceed	No, the Practitioner has to do their job and engage with the SMEs. Where the Practitioner identifies a conflict with, or between, SMEs, they should develop a report for the stakeholders identifying what limitations in confidence they might have in the impact assessment.
3	Do appropriate SMEs agree with the recommendation to enforce the target, grant time-bound relief, or change the architecture?	Yes - proceed	No, The Practitioner has to do their job and engage with the SMEs. Where the Practitioner identifies a conflict with, or between, SMEs, they should develop a report identifying what limitations in confidence the stakeholder might have in the compliance recommendation.
4	Do the views and other materials produced for the stakeholders reflect the impact assessment and reflect any underpinning architecture models and analysis?	Yes - proceed	No, the Practitioner needs to do their job.
5	Do the stakeholders understand any limitations in confidence they should have in the impact assessment?	Yes - proceed	No, the Practitioner has to do their job and provide the appropriate work products that highlight the impact of limitations in confidence and return to the stakeholders.
6	Do the stakeholders understand the impact on prior expected value, and any change in certainty in achieving the value, provided by reaching the target state?	Yes - proceed	No, the Practitioner has to do their job and provide the appropriate work products that highlight the impact on expected value, and on uncertainly in reaching the expected value and return to the stakeholders.
7	Have the stakeholders approved the recommendation to enforce the target, grant relief, or change the architecture?	Yes	No

Source: TOGAF® - A Practitioners' Approach to Developing Enterprise Architecture Following the ADM : Page 112 : §15.2.2

Level=2 : L.O.= 1.5c : Explain Architecture Compliance levels of conformance reviews and the role of the architect.
Source: TOGAF® Series Guide: A Practitioners' Approach to Developing Enterprise Architecture Following the TOGAF® ADM : Page 112 : §15.2.2

15.2.2 Implementation and Other Change Checklist

When the architecture is being used, changes to the Enterprise are guided and constrained. Two factors impact governance of change. First, organizations operate in a dynamic environment, and the analysis of the Target Architecture cannot have assessed every circumstance or change option possible. Second, the target was produced for a purpose and may not have been developed to the level of detail required for the current use. The governance process requires flexibility. When non-compliance is identified, the Enterprise must either change the architecture, provide temporary relief from constraint, or enforce the architecture. If relief is not temporary, the Enterprise has chosen the worst available option: changing the target without bothering with analysis and approval.
Two governance roles are often performed by the Practitioner: the auditor and the architect. Compliance assessment is an auditor role. When non-compliance is identified, the architect needs to produce an impact assessment and recommendation on what to do. The recommendation will have three choices: First, enforce compliance; second, provide temporary relief; and third change the Target Architecture.
The choice in the recommendation will be driven by the impact assessment. Practitioners must assess impact on the same terms as the target was developed. Assessing on any other terms invalidates the assessment and recommendation.
Implementation governance assesses compliance. Compliance assessment needs to be done soon enough that course correction is viable. As identified in the walk-through chapters, compliance assessment against value and operational change are as important as project-driven change.
This checklist is designed to assist the Practitioner understand what must be demonstrated during the governance process to address a non-compliance report:

Alignment to Organizational Objectives – 01/06

There has been a great deal of conversation about aligning with Agile implementation methods but this has blurred the line between implementation and architecture.

The TOGAF® standard aligns to Agile development in Phase G. Full stop.

A good Architecture will identify:

- What products the Enterprise needs
- The boundary of the products
- What constraints a product owner has

Phase G serves the stakeholders, guarding the:

- Mission
- Vision
- Goals
- Investment roadmap
- Enterprise value

Architecture to support Project and Solution delivery will have a set of constraints that limit the choices of the Agile team.

Source: TOGAF® - A Practitioners' Approach to Developing Enterprise Architecture Following the ADM : Page 98 : §12.1

Level=2 : L.O.= 1.6a : Explain how an architecture enables alignment to organizational objectives using Agile development as an example.
Source: TOGAF® Series Guide: A Practitioners' Approach to Developing Enterprise Architecture Following the TOGAF® ADM : Page 98 : §12.1

There has been a great deal of conversation about aligning to Agile implementation methods but this has blurred the line between implementation and architecture.
The TOGAF® standard aligns to Agile development in Phase G. **Full Stop.** ***[This is what the manual says – it is 'a bit contentious'.]***

A good Architecture will identify:
- what products the Enterprise needs
- the boundary of the products
- what constraints a product owner has

Architecture to support Project and Solution Delivery will have a set of constraints that limit the choices of the Agile team:
- individual product must bend to Enterprise issues
- parochial preference of a product owner is not valid

Phase G, Implementation Governance:
The EA serves the stakeholders guarding the:
- mission
- vision
- goals
- investment roadmap
- enterprise value

12.1 Architecture in an Agile Enterprise

... ***continued in Reference in Notes §1 above***

Alignment to Organizational Objectives – 02/06

Top-down direction and planning provides part of the answer for a nimble organization - sometimes the correct decision is to embark on unplanned change.

Every project will have some form of benefits statement.

Phase G is where the Practitioner provides guidance to the Implementation Project - EA Practitioners should look at the context.
EAs must focus not on project benefits but on Enterprise benefits realization.

When the EA's organization is in a hurry they are focused on receiving value through differentiation and experimentation.

There will be constant micro-iterations exploring discrete statements of the value realized.

In Phase G, the EA is the stakeholders' agent: be aware of the danger in this dual role.

Source: TOGAF® - A Practitioners' Approach to Developing Enterprise Architecture Following the ADM : Page 96 : §11.4

Level=2 : L.O.= 1.6b : Explain how an architecture enables alignment to organizational objectives using Agile development as an example.
Source: TOGAF® Series Guide: A Practitioners' Approach to Developing Enterprise Architecture Following the TOGAF® ADM : Page 96 : §11.4

Top-down direction and planning provides part of the answer for a nimble organization - sometimes the correct decision is to embark on unplanned change.
Where the Practitioner has arrived at the implementation of change and stakeholders have less confidence that the project will deliver – at this point EAs have to focus their energy on risk mitigation.

Every project will have some form of benefits statement.
Every organization has some form of strategy. The EA is not expected to correct the project regarding benefits statement and realization plan, instead to mitigate uncertainty regarding realizing the benefits.

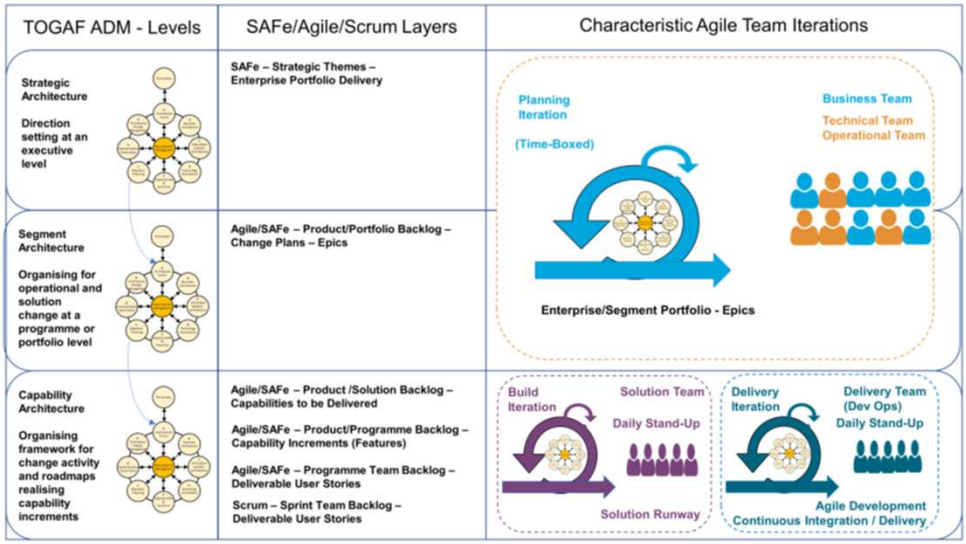
Phase G is where the Practitioner provides guidance to the Implementation Project.
While Implementers accommodate the constraints of the project: EAs Practitioners look at the context.
EAs must focus not on project benefits but on Enterprise benefits realization, ensuring the stakeholders understand the implications of their choices.
This is a very fine distinction and is worth reiterating, ensuring stakeholders and implementation teams understand what can be expected.

When the EA's organization is in a hurry they are focused on receiving value through differentiation and experimentation. A sustained efficiency gain is not achieved without clarifying dependency: focus on value realization.

There will be constant micro-iterations exploring discrete statements of value out, with the purpose of clarifying value and uncertainties - focus on the critical path to value realization.

... continued in Reference in Notes §1 above

Alignment to Organizational Objectives – 03/06



Agile techniques consider that development and delivery work can progress-based on one integrated team across all levels (business, technical, solution, build, and delivery) working in single connected sprints or across the types of boundaries (as shown) that may have separate styles of sprints.

Each level of planning and delivery may cycle through all of the TOGAF® phases from A to G.

Source: TOGAF® - Enabling Enterprise Agility : Page 22 : §4.5

Level=2 : L.O.= 1.6c : Explain how an architecture enables alignment to organizational objectives using Agile development as an example.
Source: TOGAF® Series Guide: Enabling Enterprise Agility : Page 22 : §4.5

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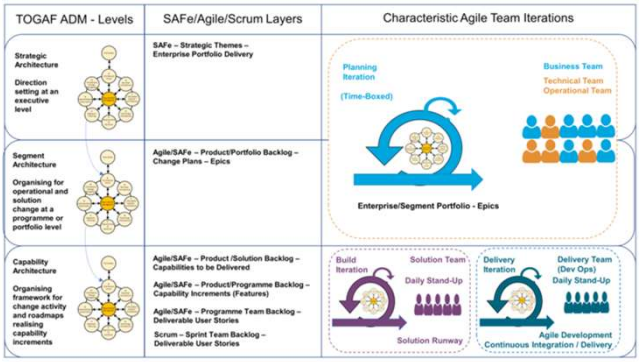
4.5. ADM Levels and Phases Mapped to Agile Concepts

As previously described, the TOGAF® ADM can be applied to deliver architecture iterations in parallel and partitioned across different levels of detail and change using Strategy, Segment, and Capability Architectures that can be also developed using techniques such as SAFe and Scrum.
Agile techniques consider that development and delivery work can progress based on one integrated team across all levels (business, technical, solution, build, and delivery) working in single connected sprints or across the types of boundaries shown in Figure 5[1] that may have connected but distinctly separate styles of sprints. The exact arrangement will depend on the complexity and scale of each enterprise and the implementation of the Agile approach.
In applying the TOGAF® ADM, each level of planning and delivery may cycle through all of the TOGAF® Standard, 10th Edition, 2022 phases from A to G but each of the three levels will often focus on specific elements of the cycle.
In the **Strategic level**, the focus is more on the Preliminary Phase (if architecture capability changes are needed) and Phases A and B to provide the basis to define the cross-enterprise and strategic change time horizon view. This generates a series of strategic high-level plans known as courses of action.
Agile techniques typically address this with concepts such as high-level strategic themes, and the highest level of an enterprise product portfolio backlog. In this level, interdisciplinary teams (business and technical teams and those that create, implement, and operate) must be involved to develop an Enterprise Architecture that meets both the business goals and objectives of the enterprise and is also potentially deliverable.
... continued in Reference in Notes §1 above

Alignment to Organizational Objectives – 04/06



Strategic level - the focus is more on the Preliminary Phase (if architecture capability changes are needed) and on Phases A and B to provide the basis used to define the cross-enterprise and strategic change time horizon view.

- This generates a series of strategic high-level plans known as courses of action.
- Agile techniques typically address this with concepts such as high-level strategic themes, and the highest level of an enterprise product portfolio backlog. In this level, interdisciplinary teams must be involved to develop an Enterprise Architecture that meets both the business goals and objectives of the enterprise and is also potentially deliverable.

Source: TOGAF® - Enabling Enterprise Agility : Page 22 : §4.5

Level=2 : L.O.= 1.6c : Explain how an architecture enables alignment to organizational objectives using Agile development as an example.
Source: TOGAF® Series Guide: Enabling Enterprise Agility : Page 22 : §4.5

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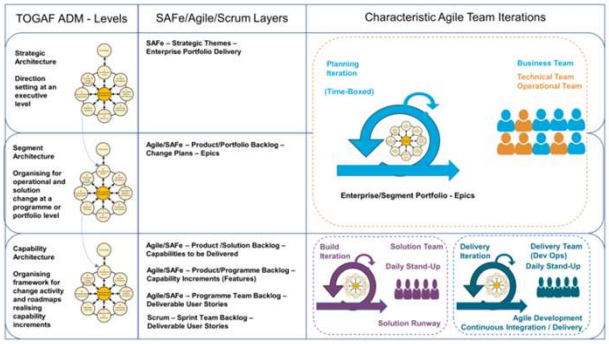
... ***continued in Reference in Notes §1 above***

Alignment to Organizational Objectives – 05/06



Segment level - the focus is on partitioning the courses of action across the relevant organizational units. If information acquired from Phases A and B is insufficient, then explore Phases B, C and D in greater detail.

- Factor work to self-organizing teams (per organization unit structure) with a high-level iteration through Phases C and D - to provide more detailed information - going deeper into smaller organization areas (segments).
- Outputs of this iteration: Epics that reflect large/long-running user stories, and the segment-based initial portfolio and/or backlog.
- The output from this level can be used to test and experiment with new products, delivering descriptions for prototypes to test ideas into the relevant segment market.

Source: TOGAF® - Enabling Enterprise Agility : Page 22 : §4.5

Level=2 : L.O.= 1.6c : Explain how an architecture enables alignment to organizational objectives using Agile development as an example.
Source: TOGAF® Series Guide: Enabling Enterprise Agility : Page 22 : §4.5

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... continued in Reference in Notes §1 above

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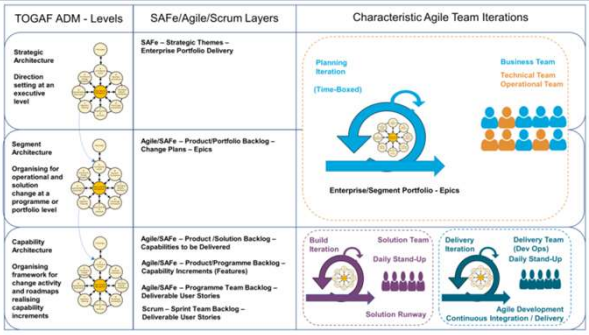

Capability level: is operationally completed in Phase G, Implementation Governance.
Ensures the agreed contracts have been delivered:

- The expected capability
- All of the required information for operating and changing the output is properly created

It confirms benefits realization in Phase H – ensuring:

- Operational and business performance is evaluated to confirm that the value has in fact been delivered
- That the users of the output are satisfied with the business outcomes of that capability increment
- That the evolving Segment and/or Strategic-level change projects are operating within the appropriate areas

There may be pressure to move forward beyond the end of the runway defined by the Capability Architecture at a given point in time. This is a type of technical debt that needs careful management to ensure it does not get out of control.
This should be addressed in Phase H, Architecture Change Management.

Source: TOGAF® - Enabling Enterprise Agility : Page 22 : §4.5

Level=2 : L.O.= 1.6c : Explain how an architecture enables alignment to organizational objectives using Agile development as an example.
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Manage multiple architecture states – 01/02

LS – 1.3
Q-1.3,p8
S-1.3,p7

Track transition states across two characteristics:

- Time
- Conformance testing

It is good practice to architect to value resting states –
a state where the Enterprise can receive value if all change activity is suspended.

Budget cycle pressure often forces ***time*** as the pragmatic transition marker.

To the extent possible, minimize transition states.

When considering transition states keep in mind the distinction between:

- An Architecture Requirements Specification
- An implemented system

Bear in mind that many implementations or operational changes are not architecturally significant.

Source: TOGAF® - A Practitioners' Approach to Developing Enterprise Architecture Following the ADM : Page 51 : §5.4

Level=2 : L.O.= 1.7a : Explain the need to manage multiple architecture states (e.g. candidate current transition target).
Source: TOGAF® Series Guide: A Practitioners' Approach to Developing Enterprise Architecture Following the TOGAF® ADM : Page 51 : §5.4

Track transition states across two characteristics:
- time
- conformance test

Good practice is to architect to value resting states – a state where the Enterprise can receive value if all change activity is suspended.
Budget cycle pressure often forces ***time*** as the pragmatic transition marker.
Tracking to change in conformance facilitates the Implementation Project and operational change governance.
To the extent possible, you should seek to minimize transition states.
When considering transition states, keep in mind the distinction between:
- an Architecture Requirements Specification
- an implemented system.

5.4 Managing Multiple States (Candidate, Current, Transition, and Target)
The Practitioner must track transition states across two characteristics: the first being time, and the second being a conformance test. Theoretically, it might be preferable to use transitions to track the value resting places and changes in conformance. Good practice is to architect to value resting states; a state where the Enterprise can receive value if all change activity is suspended. However, the pressure of the budget cycle forces us to use time is a pragmatic transition marker. Tracking to change in conformance facilitates the Implementation Project and operational change governance. To the extent possible, minimize transition states.
When considering transition states, the Practitioner needs to keep in mind the distinction between an Architecture Requirements Specification and an implemented system. Using the EA Repository as a CMDB confuses implementation record keeping and architecture. Practitioners have to keep in mind that many implementations or. ... continued in Reference in Notes §1 above

Manage multiple architecture states – 02/02

A linear timescale oversimplifies the reality.

Creating a well aligned set of work packages vectored by business cycle and planning horizon does NOT give potential transition states or a near linear roadmap.

Additional/other organizational factors that add to complexity are:

- Advancements and changes outside the Enterprise
- Shared services
- Collaboration with suppliers and partners, including portfolio ownership models
- Impenetrable dependencies
- Multiple geopolitical boundaries (fiscal calendars, regulations, cultures)
- Varying rates of maturity and growth of teams
- EA team model (federated, centralized, etc.)
- Availability of multiple solutions or announcement of end-of-life for current products

One Enterprise roadmap gets broken down into segment, portfolio, or geography.

The Enterprise will be pursuing more than one concurrent goal, e.g. efficiency and retooling.

For each business cycle, the roadmap is revisited to make adjustments, both bottom-up and top-down.

This is a clear use-case that drives the need for a good EA Repository that maintains the integrity of the current state and target state.

Source: TOGAF® - A Practitioners' Approach to Developing Enterprise Architecture Following the ADM : Page 101 : §13

Level=2 : L.O.= 1.7b : Explain the need to manage multiple architecture states (e.g. candidate current transition target).
Source: TOGAF® Series Guide: A Practitioners' Approach to Developing Enterprise Architecture Following the TOGAF® ADM : Page 101 : §13

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For each business cycle, the roadmap is revisited to make adjustments, both bottom-up and top-down.
This is a clear use-case that drives the need for a good EA Repository that maintains the integrity of the current state and target state.

13 Transition Architecture: Managing Complex Roadmaps
Until now, this Guide made the effort and process simple by describing most of the concepts using a linear time scale. It gave an impression that creating a well aligned set of work packages vectored by business cycle and planning horizon gives you potential transition states and a near linear roadmap.... ***continued in Reference in Notes §1 above***