

The Open Group® Certification for People

TOGAF® Conformance Requirements (Multi-Level)

Version 3.0
April 2018

© Copyright 2014-2018, The Open Group

All rights reserved.

This publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means for the sole purpose of use with The Open Group certification programs, provided that all copyright notices contained herein are retained.

ArchiMate®, DirecNet®, Making Standards Work®, OpenPegasus®, Platform 3.0®, The Open Group®, TOGAF®, UNIX®, UNIXWARE®, X/Open®, and the Open Brand X® logo are registered trademarks and Boundaryless Information Flow™, Build with Integrity Buy with Confidence™, Dependability Through Assuredness™, EMMM™, FACE™, the FACE™ logo, IT4IT™, the IT4IT™ logo, O-DEF™, O-PAS™, Open FAIR™, Open Platform 3.0™, Open Process Automation™, Open Trusted Technology Provider™, SOSA™, the Open O™ logo, and The Open Group Certification logo (Open O and check™) are trademarks of The Open Group.

All other brands, company, and product names are used for identification purposes only and may be trademarks that are the sole property of their respective owners.

The Open Group® Certification for People: TOGAF® Conformance Requirements (Multi-Level)

Document Number: X1810

This is an update of the TOGAF Conformance Requirements. It is issued to align with the TOGAF® Standard, Version 9.2.

Published by The Open Group, April 2018.

Comments relating to the material contained in this document may be submitted to:

The Open Group, 8 New England Executive Park, Burlington, MA 01803, United States

or by electronic mail to:

ogspeccs@opengroup.org

Contents

1.	Background.....	5
1.1	Introduction	5
1.2	Terminology and Definitions.....	5
2.	Conformance Terminology.....	6
2.1	Learning Unit Format	6
3.	Level 1 Conformance Requirements	7
3.1	Level 1 Syllabus	7
3.1.1	Basic Concepts	7
3.1.2	Core Concepts	7
3.1.3	General Definitions	8
3.1.4	Introduction to the ADM.....	9
3.1.5	Enterprise Continuum and Tools.....	9
3.1.6	ADM Phases (Level 1).....	10
3.1.7	ADM Guidelines and Techniques	11
3.1.8	Architecture Governance (Level 1).....	12
3.1.9	Architecture Views, Viewpoints, and Stakeholders	12
3.1.10	Building Blocks.....	13
3.1.11	ADM Deliverables	13
3.1.12	TOGAF Reference Models (Level 1).....	14
3.1.13	TOGAF Certification Program.....	14
4.	Level 2 Conformance Requirements	16
4.1	Level 2 Syllabus	16
4.1.1	Preliminary Phase.....	16
4.1.2	Architecture Governance (Level 2).....	16
4.1.3	Business Scenarios Technique	17
4.1.4	Phase A: Architecture Vision	17
4.1.5	Architecture Content Framework	18
4.1.6	Stakeholder Management	18
4.1.7	TOGAF Content Metamodel.....	18
4.1.8	Architecture Implementation Support Techniques	18
4.1.9	Phase B: Business Architecture.....	19
4.1.10	Phase C: Information Systems Architectures – Data Architecture.....	19
4.1.11	Phase C: Information Systems Architectures – Application Architecture.....	20
4.1.12	TOGAF Foundation Architecture: Technical Reference Model (Level 2).....	20
4.1.13	Integrated Information Infrastructure Reference Model (Level 2).....	21
4.1.14	Phase D: Technology Architecture.....	21
4.1.15	Migration Planning Techniques	22
4.1.16	Phase E: Opportunities and Solutions	22
4.1.17	Phase F: Migration Planning	23
4.1.18	Phase G: Implementation Governance	23
4.1.19	Phase H: Architecture Change Management.....	24
4.1.20	ADM Architecture Requirements Management	24
4.1.21	Architecture Partitioning	24
4.1.22	Architecture Repository	25
4.1.23	Guidelines for Adapting the ADM: Iteration and Levels	25
4.1.24	Guidelines for Adapting the ADM: Security.....	25
4.1.25	Architecture Maturity Models	26
4.1.26	Architecture Skills Framework	26
5.	Indicators of Compliance.....	27
6.	Key Learning Point Mapping to the Body of Knowledge	28
7.	Rationale (Informative)	52
7.1	Background	52

7.2	Conformance Terminology	52
7.3	Conformance Requirements (Level 1).....	52
7.4	Conformance Requirements (Level 2).....	52
7.5	Indicators of Compliance	52
7.6	Key Learning Point Mapping to the Body of Knowledge	52
8.	Change Log	54
8.1	General	54
8.2	Level 1.....	54
8.3	Level 2.....	54

1. Background

1.1 Introduction

This document – The Open Group® Certification for People: TOGAF® Conformance Requirements (Multi-Level) – is an integral part of The Open Group® Certification for People: TOGAF® Certification Program (the Program). Defined terms herein are in addition to definitions in the TOGAF Program Configuration document.

This document defines the requirements for certification of individuals within the Program, which in turn form the learning requirements for Accredited Training Courses.

1.2 Terminology and Definitions

This table defines terms or clarifies the meaning of words used within this document. Where an acronym is also used, it is provided in parentheses.

Accredited Training Course (ATC)	A training course, operated by a third party, that has successfully completed the accreditation process and which is listed in the register of Accredited Training Courses on the Certification Authority's website.
Body of Knowledge (BoK)	The set of information within the subject area of which a Candidate is expected to have understanding in order to achieve certification within the Program.
Candidate	A person seeking certification.
Certification Authority	The organization that manages the day-to-day operations of the Program. The Open Group is the Certification Authority for the Program.
Certification System Deficiency (CSD)	An agreed error in the Certification System that is inhibiting the certification process. A Certification System Deficiency is one possible outcome of a Problem Report.
Examination Provider	The organization(s) contracted by The Open Group to provide and administer The Open Group TOGAF examinations.
Key Learning Point (KLP)	A self-contained learning object, derived from the Body of Knowledge, typically ranging from 2 to 15 minutes' study time.
Learning Outcome	What the Candidate should know, understand, or be able to do on completion of learning about one or more Key Learning Points. Each Learning Outcome should have at least one Key Learning Point reference and define the depth of knowledge required for each Key Learning Point.
Learning Unit	A related set of Learning Outcomes. It is expected that a Learning Unit would equate to between 30 and 90 minutes of taught learning equivalence.
Specification Authority (SA)	The Open Group Architecture Forum, or its successor, which is responsible for developing, maintaining, and interpreting the Certification Policy, Conformance Requirements, Accreditation Policy, and Accreditation Requirements of the Program.

2. Conformance Terminology

The Conformance Requirements by certification level are specified as sets of Learning Units. To achieve certification for a given level, Candidates must complete the applicable Learning Units and successfully pass the corresponding Indicator of Compliance (see Section 5).

The definition of the Learning Units does not dictate the structure, order, or time duration that topics should be taught in an Accredited Training Course (ATC). Training organizations are free to structure their courses as they see fit, so long as Candidates have the mandatory Learning Outcomes at the end of a course for the target certification level.

2.1 Learning Unit Format

Each Learning Unit is defined in a table organized as follows:

UNIT number	UNIT Name – A descriptive name for the Learning Unit
Purpose	A succinct statement of the purpose of the Learning Unit, including a high-level Learning Outcome.
KLP Reference	A reference back to the Key Learning Point reference in the mapping to the Body of Knowledge, as detailed in Section 6. This is required for traceability.
Learning Outcome	Candidate Learning Outcome Statement A statement of what the Candidate is expected to have learned by completing the Learning Unit. A specific term is used to define the depth of learning, from low to high as follows: <ul style="list-style-type: none">• Identify – name one or more items• List – name multiple items• Understand – an understanding of the concept or item• Define – provide a definition of a term• Demonstrate – describe and explain a concept or term• Describe/State – provide a description of or statement for a concept or item; give a factual statement• Explain – provide a description with a rationale• Discuss – the ability to write logically about a topic• Justify – demonstrate the correctness of an assertion through a written discussion

3. Level 1 Conformance Requirements

To achieve certification to Level 1 Candidates must complete all Learning Units defined in Section 3.1 and successfully pass the corresponding Indicator of Compliance for Level 1 certification (see Section 5).

3.1 Level 1 Syllabus

3.1.1 Basic Concepts

UNIT 1	Basic Concepts
Purpose	The purpose of this Learning Unit is to introduce the basic concepts of Enterprise Architecture and the TOGAF framework.
KLP Reference	1-*, 2-*
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none">1. Describe what an enterprise is (KLP 1.3-1)2. Explain the purpose of an Enterprise Architecture (KLP 1.3-2)3. List the business benefits of having an Enterprise Architecture (KLP 1.3-3)4. Define what an Architecture Framework is (KLP 1.3-4)5. Explain why the TOGAF standard is suitable as a framework for Enterprise Architecture (KLP 1.3-5)6. Describe the structure of the TOGAF standard, and briefly explain the contents of each of the parts (KLP 1.1-1, 1.1-2)7. Briefly explain what the TOGAF standard is (KLP 2.1-1)8. Explain what architecture is in the context of the TOGAF standard (KLP 2.2-1)9. List the different types of architecture that the TOGAF standard deals with (KLP 2.3-1)10. Briefly explain the TOGAF Library (KLP 1.2-1)

3.1.2 Core Concepts

UNIT 2	Core Concepts
Purpose	The purpose of this Learning Unit is to help the Candidate explain the core concepts of the TOGAF standard.
KLP Reference	2-*, 29.1-1
Learning Outcome	<p>The Candidate must be able to define and explain the following core concepts:</p> <ol style="list-style-type: none">1. The ADM: phase names and the purpose of each phase (high-level) (KLP 2.4-1)2. The Architecture Content Framework: deliverables, artifacts, and building blocks (KLP 2.5-1, 29.1-1)3. The Enterprise Continuum (KLP 2.6-1)4. The Architecture Repository (KLP 2.7-1)5. Establishing and maintaining an Enterprise Architecture Capability (KLP 2.8-1)6. Establishing the Architecture Capability as an operational entity (KLP 2.9-1)7. How to use the TOGAF standard with other frameworks (KLP 2.10-1)

3.1.3 General Definitions

UNIT 3	General Definitions
Purpose	The purpose of this Learning Unit is to help the Candidate understand the key terminology of the TOGAF standard.
KLP Reference	3-*
Learning Outcome	<p>The Candidate must be able to understand and explain the following definitions from Chapter 3:</p> <ol style="list-style-type: none"> 1. Application Architecture (KLP 3.3-1) 2. Architectural Style (KLP 3.6-1) 3. Architecture (KLP 3.7-1) 4. Architecture Building Block (ABB) (KLP 3.8-1) 5. Architecture Continuum (KLP 3.9-1) 6. Architecture Development Method (ADM) (KLP 3.10-1) 7. Architecture Domain (KLP 3.11-1) 8. Architecture Framework (KLP 3.12-1) 9. Architecture Governance (KLP 3.13-1) 10. Architecture Principle (KLP 3.16-1) 11. Architecture View (KLP 3.17-1) 12. Architecture Viewpoint (KLP 3.18-1) 13. Architecture Vision (KLP 3.19-1) 14. Artifact (KLP 3.20-1) 15. Baseline (KLP 3.21-1) 16. Building Block (KLP 3.23-1) 17. Business Architecture (KLP 3.24-1) 18. Business Capability (KLP 3.25-1) 19. Business Governance (KLP 3.27-1) 20. Capability (KLP 3.30-1) 21. Concern (KLP 3.34-1) 22. Course of Action (KLP 3.35-1) 23. Data Architecture (KLP 3.36-1) 24. Deliverable (KLP 3.37-1) 25. Enterprise (KLP 3.38-1) 26. Foundation Architecture (KLP 3.40-1) 27. Gap (KLP 3.42-1) 28. Governance (KLP 3.43-1) 29. Information (KLP 3.44-1) 30. Information Technology (IT) (KLP 3.46-1) 31. Logical (KLP 3.48-1) 32. Metadata (KLP 3.49-1) 33. Metamodel (KLP 3.50-1) 34. Method (KLP 3.51-1) 35. Modeling (KLP 3.52-1) 36. Objective (KLP 3.54-1) 37. Physical (KLP 3.57-1) 38. Reference Model (RM) (KLP 3.59-1) 39. Repository (KLP 3.60-1) 40. Requirement (KLP 3.61-1) 41. Service (KLP 3.65-1) 42. Solution Architecture (KLP 3.69-1) 43. Solution Building Block (SBB) (KLP 3.70-1) 44. Stakeholder (KLP 3.72-1) 45. Strategic Architecture (KLP 3.74-1)

UNIT 3	General Definitions
	46. Target Architecture (KLP 3.75-1) 47. Technology Architecture (KLP 3.77-1) 48. Transition Architecture (KLP 3.80-1) 49. Value Stream (KLP 3.81-1) 50. Viewpoint Library (KLP 3.82-1) Note: It is expected that these definitions would be covered as part of the learning in other units.

3.1.4 Introduction to the ADM

UNIT 4	Introduction to the ADM
Purpose	The purpose of this Learning Unit is to help the Candidate understand the ADM cycle, briefly explain the objective of each phase in the cycle, and how to adapt and scope the ADM for use.
KLP Reference	2-*, 4-*
Learning Outcome	The Candidate must be able to: <ol style="list-style-type: none"> Briefly describe the ADM cycle and its phases (KLP 2.4-1, 4.2.2-1, -2, -3) Describe a typical set of steps, such as those for Phases B, C, and D (KLP 4.2.2-2) Describe the versioning convention for deliverables used in Phases A to D (KLP 4.2.2-3) Briefly describe the relationship between the ADM and the Enterprise Continuum, Architecture Repository, Foundation Architecture, and Supporting Guidelines and Techniques (KLP 4.1-1) Explain the purpose of the supporting guidelines and techniques, and the difference between guidelines and techniques (KLP 4.1-2) Briefly describe the key points of the ADM cycle (KLP 4.2.1-1) List the main reasons why you would need to adapt the ADM (KLP 4.3-1) Explain the need for the ADM process to be governed (KLP 4.4-1) Describe the major information areas managed by a governance repository (KLP 4.4-2) Briefly explain the reasons for scoping an architecture activity (KLP 4.5-1) List the possible dimensions for limiting the scope (KLP 4.5-2) Briefly explain the need for an integration framework that sits above individual architectures (KLP 4.6-1)

3.1.5 Enterprise Continuum and Tools

UNIT 5	Enterprise Continuum and Tools
Purpose	The purpose of this Learning Unit is to help the Candidate understand the concept of the Enterprise Continuum, its purpose, and constituent parts.
KLP Reference	35-*, 37-*
Learning Outcome	The Candidate must be able to: <ol style="list-style-type: none"> Briefly explain what the Enterprise Continuum is (KLP 35.1-1) Explain how it is used in organizing and developing an architecture (KLP 35.2-1) Explain how the Enterprise Continuum promotes re-use of architecture artifacts (KLP 35.2-2) Describe the constituents of the Enterprise Continuum (KLP 35.3-1)

UNIT 5	Enterprise Continuum and Tools
	<ol style="list-style-type: none"> 5. Explain the purpose of the Enterprise Continuum (KLP 35.3-2) 6. Explain the purpose of the Architecture Continuum (KLP 35.4-3) 7. List the stages of architecture evolution defined in the Architecture Continuum (KLP 35.4-4) 8. Explain the purpose of the Solutions Continuum (KLP 35.4-6) 9. List the stages of architecture evolution defined in the Solutions Continuum (KLP 35.4-7) 10. Explain the relationship between the Enterprise Continuum and the ADM (KLP 35.5-1) 11. Describe the Architecture Repository (KLP 37-1) 12. Explain the relationship between the Enterprise Continuum and the Architecture Repository (KLP 35.1-2, 37.1-2) 13. Describe the classes of information held in the Architecture Repository (KLP 37.1-2) 14. List the three levels of the Architecture Landscape (KLP 37.2-1) 15. Explain the purpose of the Standards Information Base within the Architecture Repository (KLP 37.4-1)

3.1.6 ADM Phases (Level 1)

UNIT 6	ADM Phases (Level 1)
Purpose	The purpose of this Learning Unit is to help the Candidate understand how each of the ADM phases contributes to the success of Enterprise Architecture by understanding the <i>objectives</i> , and the <i>approach</i> for each phase.
KLP Reference	5-*, 6-*, 7-*, 8-*, 9-*, 10-*, 11-*, 12-*, 13-*, 14-*, 15-*, 16-*
Learning Outcome	<p>Preliminary Phase: The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Describe the main objectives of the phase (KLP 5.1-1) 2. Briefly explain the seven aspects of the approach undertaken in this phase (KLP 5.5-1): <ul style="list-style-type: none"> ○ Defining the enterprise ○ Identifying key drivers and elements in the organizational context ○ Defining the requirements for architecture work ○ Defining the Architecture Principles that will inform any architecture work ○ Defining the framework to be used ○ Defining the relationships between management frameworks ○ Evaluating the Enterprise Architecture maturity <p>Phase A: The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Describe the main objectives of the phase (KLP 6.1-1) 2. Briefly explain the main aspect to the approach in this phase (KLP 6.5-1): <ul style="list-style-type: none"> ○ Creating the Architecture Vision <p>Phase B: The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Describe the main objectives of the phase (KLP 7.1-1) 2. Briefly explain the main aspects of the approach in this phase (KLP 7.5-1): <ul style="list-style-type: none"> ○ General ○ Developing the Baseline Description ○ Applying Business Capabilities ○ Applying Value Streams ○ Applying the Organization Map ○ Applying Modeling Techniques ○ Using the Architecture Repository

UNIT 6	ADM Phases (Level 1)
	<p>Phase C: The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Describe the main objectives of the phase (KLP 8.1-1, 9.1-1, 10.1-1) 2. Briefly explain the approach recommended by the TOGAF framework, including: <ul style="list-style-type: none"> ○ Key considerations for the Data Architecture (KLP 9.5-1) ○ Using the Architecture Repository (KLP 9.5-1, 10.5-1) <p>Phase D: The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Describe the main objectives of the phase (KLP 11.1-1) 2. Briefly explain the approach to the phase (KLP 11.5-1), including: <ul style="list-style-type: none"> ○ Emerging technologies – a driver for change ○ Using the Architecture Repository <p>Phase E: The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Describe the main objectives of the phase (KLP 12.1-1) 2. Briefly explain the approach to the phase (KLP 12.5-1) <p>Phase F: The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Describe the main objectives of the phase (KLP 13.1-1) 2. Briefly explain the approach to the phase (KLP 13.5-1) <p>Phase G: The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Describe the main objectives of the phase (KLP 14.1-1) 2. Briefly explain the approach to the phase (KLP 14.5-1) <p>Phase H: The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Describe the main objectives of the phase (KLP 15.1-1) 2. Briefly explain the approach to the phase (KLP 15.5-1), including: <ul style="list-style-type: none"> ○ Drivers for change ○ Enterprise Architecture management process ○ Guidelines for maintenance <i>versus</i> architecture redesign <p>ADM Architecture Requirements Management: The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Briefly explain how Requirements Management fits into the ADM cycle (KLP 16.1-1) 2. Describe the nature of the Requirements Management process (KLP 16.1-2) 3. Describe the approach to Requirements Management (KLP 16.5-1)

3.1.7 ADM Guidelines and Techniques

UNIT 7	ADM Guidelines and Techniques
Purpose	The purpose of this Learning Unit is to introduce the Candidate to the ADM Guidelines and Techniques available to support application of the ADM.
KLP Reference	17-*, 20-*, BS-*, 23-*, 25-*, 26-*, 27-*, 28-*
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Briefly explain the contents of Part III, ADM Guidelines and Techniques (KLP 17.1-1) 2. Briefly explain the need for Architecture Principles and where they are used within the TOGAF ADM (KLP 20.1-1) 3. Describe the recommended template for Architecture Principles (KLP 20.3-1) 4. Explain what makes a good Architecture Principle (KLP 20.4-2) 5. Understand what a Business Scenario is and its purpose (KLP BS.1-1) 6. Explain where Business Scenarios are used within the ADM cycle (KLP BS.1-2) 7. Explain the purpose of Gap Analysis (KLP 23.2-1) 8. Describe the Gap Analysis technique (KLP 23.2-1)

UNIT 7	ADM Guidelines and Techniques
	<ol style="list-style-type: none"> 9. Explain the term interoperability (KLP 25.2-1) 10. Understand the use of Interoperability Requirements within the TOGAF ADM (KLP 25.1-1) 11. Understand Business Transformation Readiness Assessment (KLP 26.1-2) 12. Understand where Business Transformation Readiness Assessment is used within the ADM (KLP 26.1-1) 13. Understand the characteristics of Risk Management (KLP 27.1-2) 14. Understand where Risk Management is used within the TOGAF ADM (KLP 27.1-1) 15. Understand Capability-Based Planning (KLP 28.1-1) 16. Briefly explain the use of the TOGAF ADM in the context of a specific architectural style (KLP 17.3-1)

3.1.8 Architecture Governance (Level 1)

UNIT 8	Architecture Governance (Level 1)
Purpose	The purpose of this Learning Unit is to help the Candidate understand how Architecture Governance contributes to the Architecture Development Cycle.
KLP Reference	40-*, 41-*, 42-*, 43-*, 44-*
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Briefly explain the concept of Architecture Governance (KLP 44.1-1) 2. Describe the main concepts that make up an Architecture Governance framework (KLP 44.2-1) 3. Explain why Architecture Governance is beneficial (KLP 44.3-1) 4. Briefly explain the need for establishment of an Architecture Board (KLP 41.1-1) 5. List the responsibilities of an Architecture Board (KLP 41.2-1) 6. Briefly explain the role of Architecture Contracts (KLP 43.1-1) 7. Briefly explain the meaning of Architecture Compliance (KLP 42.2-1) 8. Briefly explain the need for Architecture Compliance (KLP 42.1-1) 9. Briefly explain the purpose of Architecture Compliance Reviews (KLP 42.3-1) 10. Briefly describe the Architecture Compliance Review process (KLP 42.4-1) 11. Briefly explain how the ADM can be used to establish an Architecture Capability (KLP 40.1-1)

3.1.9 Architecture Views, Viewpoints, and Stakeholders

UNIT 9	Architecture Views, Architecture Viewpoints, and Stakeholders
Purpose	The purpose of this Learning Unit is to help the Candidate understand the concepts of architecture views and architecture viewpoints, and their role in communicating with stakeholders as well as applying them to the Architecture Development Cycle.
KLP Reference	31-*

UNIT 9	Architecture Views, Architecture Viewpoints, and Stakeholders
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Define and explain the following key concepts (KLP 31.1-1): <ul style="list-style-type: none"> ○ Stakeholders ○ Concerns ○ Architecture Views ○ Architecture Viewpoints 2. Describe a simple example of an architecture viewpoint and view (KLP 31.1-2) 3. Discuss the relationship between stakeholders, concerns, architecture views, and architecture viewpoints (KLP 31.1-3) 4. Describe the architecture view creation process (KLP 31.2-1)

3.1.10 Building Blocks

UNIT 10	Building Blocks
Purpose	The purpose of this Learning Unit is to help the Candidate understand the concept of building blocks within the TOGAF standard.
KLP Reference	22-*, 33-*
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Define what a building block is, and explain what makes a good building block (KLP 33.2-1) 2. Explain the distinction between Architecture Building Blocks and Solution Building Blocks (KLP 33.2-2) 3. Briefly explain the use of building blocks in the ADM cycle (KLP 33.3-1) 4. Describe the characteristics of an Architecture Pattern (KLP 22.1-1)

3.1.11 ADM Deliverables

UNIT 11	ADM Deliverables
Purpose	The purpose of this Learning Unit is to help the Candidate understand key deliverables of the ADM cycle.
KLP Reference	32.1-1, 32.2-1

UNIT 11	ADM Deliverables
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Briefly explain the role of architecture deliverables across the ADM cycle (KLP 32.1-1) 2. Briefly explain the purpose of the following deliverables (KLP 32.2-1): <ul style="list-style-type: none"> ○ Architecture Building Blocks ○ Architecture Contract ○ Architecture Definition Document ○ Architecture Principles ○ Architecture Repository ○ Architecture Requirements Specification ○ Architecture Roadmap ○ Architecture Vision ○ Business Principles, Business Goals, and Business Drivers ○ Capability Assessment ○ Change Request ○ Communications Plan ○ Compliance Assessment ○ Implementation and Migration Plan ○ Implementation Governance Model ○ Organizational Model for Enterprise Architecture ○ Request for Architecture Work ○ Requirements Impact Assessment ○ Solution Building Blocks ○ Statement of Architecture Work ○ Tailored Architecture Framework <p>Note: It is expected that at least some of these deliverables would be covered as part of the learning in other units.</p>

3.1.12 TOGAF Reference Models (Level 1)

UNIT 12	TOGAF Reference Models (Level 1)
Purpose	The purpose of this Learning Unit is to introduce the two example TOGAF Reference Models documented in the TOGAF Series Guides.
KLP Reference	TRM-*, IIIRM-*
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Explain the role of the TRM as a Foundation Architecture (KLP TRM.2-1) 2. Describe at a high level the main components of the TOGAF TRM (KLP TRM.4-1) 3. Briefly explain the basic concepts of the III-RM (KLP IIIRM.1-1) 4. Briefly explain the relationship of the III-RM to the concept of Boundaryless Information Flow (KLP IIIRM.1-2)

3.1.13 TOGAF Certification Program

UNIT 13	TOGAF Certification Program
Purpose	The purpose of this Learning Unit is to help the Candidate understand the TOGAF Certification Program.
KLP Reference	None.

UNIT 13	TOGAF Certification Program
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Explain the TOGAF Certification Program, and distinguish between the levels for certification

4. Level 2 Conformance Requirements

To achieve certification to Level 2 Candidates must complete all Learning Units defined in Section 3.1 and Section 4.1, and successfully pass the corresponding Indicator of Compliance for Level 2 certification (see Section 5).

4.1 Level 2 Syllabus

4.1.1 Preliminary Phase

UNIT 1	Preliminary Phase
Purpose	The purpose of this Learning Unit is to help the Candidate understand how to apply the Preliminary Phase in development of an Enterprise Architecture.
KLP Reference	5-*, 20-*, SEC.5-1, 32.2
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none">1. Understand the inputs to the phase (KLP 5.2-1), and be able to explain the following key elements:<ul style="list-style-type: none">○ Architecture Frameworks○ Business principles, business goals, and business drivers2. Explain the influence of pre-existing architectural inputs on the phase (KLP 5.2-1)3. Understand the steps (KLP 5.3-1, 5.3.3), and be able to:<ul style="list-style-type: none">○ Describe how to establish an Enterprise Architecture team and organization○ Identify and establish a set of Architecture Principles for a given scenario (KLP 5.3.4-1, 20.4-1, 20.5-1)○ Discuss the appropriate considerations for tailoring the TOGAF framework (KLP 5.3.5-1)4. Understand the outputs (KLP 5.4-1), and be able to explain the following key elements (KLP 32.2-2):<ul style="list-style-type: none">○ Architecture Principles○ Architecture Governance Framework○ Request for Architecture Work5. Briefly explain how Security Architecture influences this phase (KLP SEC.5-1)

4.1.2 Architecture Governance (Level 2)

UNIT 2	Architecture Governance (Level 2)
Purpose	The purpose of this Learning Unit is to help the Candidate understand how to apply Architecture Governance in development of an Enterprise Architecture.
KLP Reference	5-*, 13-*, 14-*, 41-*, 44-*

UNIT 2	Architecture Governance (Level 2)
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Explain how Architecture Governance fits within the ADM cycle (KLP 5.4-1, 13.2-1, 14.4-1) 2. Discuss the key success factors for putting Architecture Governance into practice (KLP 44.3-1) 3. Discuss the factors that should be considered when setting up an Architecture Board (KLP 41.3-1) 4. Explain how to operate an Architecture Board (KLP 41.4-1) <p>Note: There is expected to be some overlap with the Learning Unit covering Phase G.</p>

4.1.3 Business Scenarios Technique

UNIT 3	Business Scenarios Technique
Purpose	The purpose of this Learning Unit is to help the Candidate understand how to apply the Business Scenarios technique.
KLP Reference	BS-*
Learning Outcome	<p>The Candidate must be able to</p> <ol style="list-style-type: none"> 1. Describe the properties of a good Business Scenario (KLP BS.1-1, BS.7-1, BS.9-1) 2. Explain how to develop and validate a Business Scenario (KLP BS.3-1, BS.7-1, BS.9-1)

4.1.4 Phase A: Architecture Vision

UNIT 4	Phase A: Architecture Vision
Purpose	The purpose of this Learning Unit is to help the Candidate understand how to apply Phase A in development of an Enterprise Architecture.
KLP Reference	6-*, SEC.5-1, 26-*, 27-*, 32.2
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Understand the inputs to the phase (KLP 6.2-1), and be able to: <ul style="list-style-type: none"> o Describe the typical contents of the Architecture Repository at this point 2. Understand the steps (KLP 6.3-1), and be able to: <ul style="list-style-type: none"> o Describe how to identify stakeholders, their concerns, and business requirements o Explain the purpose of a Business Transformation Readiness Assessment o Describe the risk assessment approach taken in this phase 3. Understand the outputs (KLP 6.4-1), and be able to explain the following key elements including their purpose (KLP 32.2-2): <ul style="list-style-type: none"> o Statement of Architecture Work o Capability Assessment o Architecture Vision o Communications Plan 4. Explain the Security Architecture influences on this phase (KLP SEC.5-1)

4.1.5 Architecture Content Framework

UNIT 5	Architecture Content Framework
Purpose	The purpose of this Learning Unit is to help the Candidate understand the TOGAF Architecture Content Framework.
KLP Reference	29-*
Learning Outcome	The Candidate must be able to: <ol style="list-style-type: none">1. Explain the purpose of the Architecture Content Framework (KLP 29.2-1)2. Describe the main components of the Content Metamodel (KLP 29.2-1)3. Describe the relationship between the Architecture Content Framework and the TOGAF ADM (KLP 29.3-1)

4.1.6 Stakeholder Management

UNIT 6	Stakeholder Management
Purpose	The purpose of this Learning Unit is to help the Candidate understand how to apply the Stakeholder Management technique.
KLP Reference	21-*, 31-*
Learning Outcome	The Candidate must be able to: <ol style="list-style-type: none">1. Describe the Stakeholder Management process (KLP 21.1-1, 21.2-1, 21.3-1, 21.4-1)2. Explain the benefits of creating architecture views (KLP 31.2-1)3. For the example architecture view described in Section 31.4.1:<ul style="list-style-type: none">o Describe the stakeholders and their concernso Define a Stakeholder Map

4.1.7 TOGAF Content Metamodel

UNIT 7	TOGAF Content Metamodel
Purpose	The purpose of this Learning Unit is to help the Candidate understand the TOGAF Content Metamodel.
KLP Reference	30.1-*, 30.2-*
Learning Outcome	The Candidate must be able to: <ol style="list-style-type: none">1. Describe the core metamodel concepts (KLP 30.2-1)2. Explain the purpose of dividing the metamodel into core and extensions (KLP 30.2-1)3. Describe the key concepts related to the core metamodel entities (KLP 30.2-3)

4.1.8 Architecture Implementation Support Techniques

UNIT 8	Architecture Implementation Support Techniques
Purpose	The purpose of this Learning Unit is to help the Candidate understand how to apply different techniques that will assist with the implementation of the architectures defined in the coming phases.
KLP Reference	6.3-*, 25-*, 26-*, 27-*, 28-*

UNIT 8	Architecture Implementation Support Techniques
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Explain how to reconcile Interoperability Requirements with potential solutions (KLP 25.6-1) 2. Explain the factors that influence Business Transformation Readiness (KLP 26.2-1) 3. Explain how to determine requirements for risk assessments (KLP 27.4-1) 4. Explain how Capability-Based Planning is applied in an Enterprise Architecture context (KLP 28.4-2) <p>Note: There is expected to be some overlap with the Phase A Learning Unit.</p>

4.1.9 Phase B: Business Architecture

UNIT 9	Phase B: Business Architecture
Purpose	The purpose of this Learning Unit is to help the Candidate understand how to apply Phase B in development of an Enterprise Architecture.
KLP Reference	7-*, SEC.5-1, 23-*
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Understand the inputs to the phase (KLP 7.2-1), and explain the following key elements: <ul style="list-style-type: none"> o Business principles, business goals, and business drivers 2. Understand the steps (KLP 7.3-1), and be able to: <ul style="list-style-type: none"> o Describe techniques for business modeling o Explain the considerations for selecting reference models, viewpoints, and tools (KLP 7.3.1-1) o Explain the technique of Gap Analysis (KLP 23.1, 23.2) 3. Explain how building blocks are used in the development of the Business Architecture (KLP 7.3.1-1) 4. Understand the outputs (KLP 7.4-1), and be able to explain the following key elements: <ul style="list-style-type: none"> o Business Architecture components of the Architecture Definition Document o Business Architecture components of the Architecture Requirements Specification 5. Briefly explain the Security Architecture influences on this phase (KLP SEC.5-1)

4.1.10 Phase C: Information Systems Architectures – Data Architecture

UNIT 10	Phase C: Information Systems Architectures – Data Architecture
Purpose	The purpose of this Learning Unit is to help the Candidate understand how to apply Phase C (Data Architecture) in development of an Enterprise Architecture.
KLP Reference	9-*, SEC.5-1

UNIT 10	Phase C: Information Systems Architectures – Data Architecture
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Explain the considerations for the implementation order of the Data and Application Architectures (KLP 8.2-1) 2. Understand the inputs to the phase (KLP 9.2-1), and explain the following key elements: <ul style="list-style-type: none"> ○ Data Principles 3. Understand the steps (KLP 9.3-1), and be able to: <ul style="list-style-type: none"> ○ Explain the considerations for selecting reference models, viewpoints, and tools 4. Understand the outputs (KLP 9.4-1), and be able to explain the following key elements: <ul style="list-style-type: none"> ○ Data Architecture components of the Architecture Definition Document ○ Data Architecture components of the Architecture Requirements Specification 5. Briefly explain the Security Architecture influences on this phase (KLP SEC.5-1)

4.1.11 Phase C: Information Systems Architectures – Application Architecture

UNIT 11	Phase C: Information Systems Architectures – Application Architecture
Purpose	The purpose of this Learning Unit is to help the Candidate understand how to apply Phase C (Application Architecture) in development of an Enterprise Architecture.
KLP Reference	10-*, SEC.5-1
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Understand the inputs to the phase (KLP 10.2-1), and explain the following key elements: <ul style="list-style-type: none"> ○ Application Principles 2. Understand the steps (KLP 10.3-1), and be able to: <ul style="list-style-type: none"> ○ Explain the considerations for selecting reference models, viewpoints, and tools 3. Understand the outputs (KLP 10.4-1), and be able to explain the following key elements: <ul style="list-style-type: none"> ○ Application Architecture components of the Architecture Definition Document ○ Application Architecture components of the Architecture Requirements Specification 4. Briefly explain the Security Architecture influences on this phase (KLP SEC.5-1)

4.1.12 TOGAF Foundation Architecture: Technical Reference Model (Level 2)

UNIT 12	TOGAF Foundation Architecture: Technical Reference Model (Level 2)
Purpose	The purpose of this Learning Unit is to help the Candidate have a detailed understanding of the TOGAF Technical Reference Model (TRM).
KLP Reference	TRM-*

UNIT 12	TOGAF Foundation Architecture: Technical Reference Model (Level 2)
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Explain the detailed TRM graphic, including the following key elements (KLP TRM.4-2, TRM.4-3, TRM.4-4, TRM.4-5): <ul style="list-style-type: none"> ○ Application Software Categories ○ Application Platform Interface ○ Application Platform ○ Communications Infrastructure Interface ○ Qualities 2. Briefly describe the structure of the TRM components and high-level model view (KLP TRM.2-3, TRM.3-1) 3. Briefly explain the main architecture objectives of using the TRM (KLP TRM.3-2) 4. Explain what the Platform Services Taxonomy is (KLP TRM.5-1) 5. Explain what the Service Quality Taxonomy is (KLP TRM.5-2)

4.1.13 Integrated Information Infrastructure Reference Model (Level 2)

UNIT 13	Integrated Information Infrastructure Reference Model (Level 2)
Purpose	The purpose of this Learning Unit is to help the Candidate have a detailed understanding of the TOGAF Integrated Information Infrastructure Reference Model (III-RM).
KLP Reference	IIIRM-*
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Describe the business and technical drivers for Boundaryless Information Flow (KLP IIIRM.1.4-1) 2. Explain how the III-RM fulfills the solution space for Boundaryless Information Flow (KLP IIIRM.1.4-2) 3. Briefly describe the high-level structure of the III-RM (KLP IIIRM.2-1) 4. Explain the detailed III-RM graphic, including the following components (KLP IIIRM.3-1): <ul style="list-style-type: none"> ○ Business Applications ○ Infrastructure Applications ○ Application Platform ○ Interfaces ○ Qualities

4.1.14 Phase D: Technology Architecture

UNIT 14	Phase D: Technology Architecture
Purpose	The purpose of this Learning Unit is to help the Candidate understand how to apply Phase D in development of an Enterprise Architecture.
KLP Reference	11-*, SEC.5-1

UNIT 14	Phase D: Technology Architecture
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Understand the inputs to the phase (KLP 11.2-1), and explain the following key elements: <ul style="list-style-type: none"> ○ Technology Principles 2. Understand the steps (KLP 11.3-1), and be able to: <ul style="list-style-type: none"> ○ Explain how a taxonomy of technology services and technology components can be used when developing a Technology Architecture ○ Explain the role of ABBs 3. Understand the outputs (KLP 11.4-1), and be able to explain the following key elements: <ul style="list-style-type: none"> ○ Technology Architecture components of the Architecture Definition Document ○ Technology Architecture components of the Architecture Requirements Specification 4. Briefly explain the Security Architecture influences on this phase (KLP SEC.5-1)

4.1.15 Migration Planning Techniques

UNIT 15	Migration Planning Techniques
Purpose	The purpose of this Learning Unit is to help the Candidate understand the techniques used in Phase E and F for migration planning.
KLP Reference	24-*
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Describe how the Implementation Factor Assessment and Deduction Matrix can be used to document factors impacting the Architecture Implementation and Migration Plan (KLP 24.1-1) 2. Explain the purpose of the Consolidated Gaps, Solutions, and Dependencies Matrix (KLP 24.2-1) 3. Describe the purpose of an Architecture Definition Increments Table (KLP 24.3-1) 4. Explain how the Transition Architecture State Evolution Table can be used in conjunction with a defined taxonomy such as the TOGAF TRM (KLP 24.4-1) 5. Explain how the Business Value Assessment Technique can be used in architecture development (KLP 24.5-1) <p>Note: There is expected to be overlap with Learning Units on Phase E and F.</p>

4.1.16 Phase E: Opportunities and Solutions

UNIT 16	Phase E: Opportunities and Solutions
Purpose	The purpose of this Learning Unit is to help the Candidate understand how to apply Phase E in development of an Enterprise Architecture.
KLP Reference	12-*, SEC.5-1

UNIT 16	Phase E: Opportunities and Solutions
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Explain how migration planning techniques are used in this phase to review and consolidate the Gap Analysis results from earlier phases (KLP 12.3.3-1) 2. Describe the steps to create the Implementation and Migration Strategy (KLP 12.3.8-1) 3. Describe three basic approaches to implementation (KLP 12.3.8-1) 4. Explain how to identify and group work packages (KLP 12.3.9-1) 5. Explain how Transition Architectures are created and documented (KLP 12.3.10-1) 6. Briefly explain the Security Architecture influences on this phase (KLP SEC.5-1)

4.1.17 Phase F: Migration Planning

UNIT 17	Phase F: Migration Planning
Purpose	The purpose of this Learning Unit is to help the Candidate understand how to apply Phase F in development of an Enterprise Architecture.
KLP Reference	13-*, SEC.5-1, 24-*
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Describe the management frameworks that have to be coordinated within this phase (KLP 13.3) 2. Explain how business value is assigned to each work package (KLP 13.3.1-1) 3. Describe the steps to prioritize the migration projects (KLP 13.3.4-1) 4. Describe the steps to confirm the Architecture Roadmap (KLP 13.3.5-1) 5. Explain key outputs of this phase (KLP 13.4-1), specifically: <ul style="list-style-type: none"> o Implementation and Migration Plan o Architecture Definition Document, including Transition Architectures (if any) 6. Briefly explain the Security Architecture influences on this phase (KLP SEC.5-1)

4.1.18 Phase G: Implementation Governance

UNIT 18	Phase G: Implementation Governance
Purpose	The purpose of this Learning Unit is to help the Candidate understand how to apply Phase G in development of an Enterprise Architecture.
KLP Reference	14-*, 27-*, 42-*, 43-*, 44-*, SEC.5-1
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Understand the inputs to the phase (KLP 14.2-1) 2. Understand the steps (KLP 14.3-1), and be able to describe the following: <ul style="list-style-type: none"> o Explain how to tailor and conduct an Architecture Compliance Review (KLP 42.6-1) 3. Understand the outputs (KLP 14.4-1), and be able to explain the following key elements: <ul style="list-style-type: none"> o The contents of Architecture Contracts (KLP 43.2-1) o Their relationship to Architecture Governance (KLP 44.3-1) 4. Briefly explain the Security Architecture influences on this phase (KLP SEC.5-1) 5. Demonstrate the role that risk monitoring plays in this phase (KLP 27.7-1)

4.1.19 Phase H: Architecture Change Management

UNIT 19	Phase H: Architecture Change Management
Purpose	The purpose of this Learning Unit is to help the Candidate understand how to apply Phase H in development of an Enterprise Architecture.
KLP Reference	15-*, 41-*, SEC.5-1
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none">1. Understand the inputs to the phase (KLP 15.2-1), and be able to explain the following:<ul style="list-style-type: none">○ Change Requests2. Understand the steps (KLP 15.3-1), and be able to describe the following:<ul style="list-style-type: none">○ Architecture Board meetings3. Understand the outputs (KLP 15.4-1), and be able to explain when the following might occur:<ul style="list-style-type: none">○ Updated Architecture Contracts○ A new Request for Architecture Work4. Briefly explain the Security Architecture influences on this phase (KLP SEC.5-1)

4.1.20 ADM Architecture Requirements Management

UNIT 20	ADM Architecture Requirements Management
Purpose	The purpose of this Learning Unit is to help the Candidate understand how to apply the process of managing architecture requirements.
KLP Reference	16-*, SEC.5-1
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none">1. Understand the inputs to the phase (KLP 16.2-1)2. Understand the steps (KLP 16.3-1)3. Explain how the Requirements Management steps correspond to ADM phases (KLP 16.3-2)4. Explain the purpose of the outputs of Requirements Management (KLP 16.4-1)5. Briefly explain the Security Architecture influences on the requirements captured (KLP SEC.5-1)

4.1.21 Architecture Partitioning

UNIT 21	Architecture Partitioning
Purpose	The purpose of this Learning Unit is to help the Candidate understand how Architecture Partitioning can be used to simplify the development and maintenance of an Enterprise Architecture.
KLP Reference	36-*
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none">1. Describe the purpose of Architecture Partitioning (KLP 36.1)2. Describe the classification criteria for solutions and architectures when considering partitioning (KLP 36.2-1)3. Describe how Architecture Partitioning can be employed in the Preliminary Phase of the ADM (KLP 36.2-3)

4.1.22 Architecture Repository

UNIT 22	Architecture Repository
Purpose	The purpose of this Learning Unit is to help the Candidate understand the purpose of the Architecture Repository, its constituent parts, and its relationship to other parts of the TOGAF standard.
KLP Reference	37-*
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none">1. Explain the relationship between the Architecture Repository and the Enterprise Repository (KLP 37.1-1)2. Describe the purpose of the repository areas that hold output of projects, specifically:<ul style="list-style-type: none">○ Architecture Landscape (KLP 37.2-1)○ Reference Library (KLP 37.3-1)○ Standards Information Base (KLP 37.4-2)○ Governance Log (KLP 37.5-1)○ Architecture Requirements Repository (KLP 37.6-1)○ Solutions Landscape (KLP 37.7-1)○ Enterprise Repository (KLP 37.8-1)

4.1.23 Guidelines for Adapting the ADM: Iteration and Levels

UNIT 23	Guidelines for Adapting the ADM: Iteration and Levels
Purpose	The purpose of this Learning Unit is to help the Candidate understand how to apply iteration and different levels of architecture with the ADM.
KLP Reference	18-*, 19-*
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none">1. Describe the concept of iteration and how it applies to the ADM (KLP 18.1-1)2. Describe the factors influencing the use of iteration (KLP 18.6-1)3. Describe some suggested iteration cycles (KLP 18.2-1)4. Describe how the ADM supports different types of engagements within the organization (KLP 18.3-1, 18.4-1)5. Explain how to apply iteration cycles to the ADM phases (KLP 18.5-1)6. Explain how the concepts of levels and the Enterprise Continuum are used to organize the Architecture Landscape (KLP 19.1-1, 19.2-1, 19.3-1, 19.4-1)7. Identify the different levels of architecture that exist in an organization (KLP 19.2-1)

4.1.24 Guidelines for Adapting the ADM: Security

UNIT 24	Guidelines for Adapting the ADM: Security
Purpose	The purpose of this Learning Unit is to help the Candidate understand the security considerations that need to be addressed during application of the ADM.
KLP Reference	SEC-*

UNIT 24	Guidelines for Adapting the ADM: Security
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Briefly explain Enterprise Security Architecture (KLP SEC.1-1) 2. Explain how Security is a cross-cutting concern (KLP SEC.4-1) 3. Briefly explain the recommended security adaptations to the ADM (KLP SEC.5-1) <p>Note: This Learning Unit overlaps with each of the ADM phases.</p>

4.1.25 Architecture Maturity Models

UNIT 25	Architecture Maturity Models
Purpose	The purpose of this Learning Unit is to help the Candidate understand the role of Architecture Capability Maturity Models in enabling an enterprise to determine the state of the Enterprise Architecture and to evaluate risks and options during the development of the Enterprise Architecture.
KLP Reference	5.5-*, 6.3.4-*, 12.1-*, 45-*
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Explain the role of a Capability Maturity Model (KLP 45.1-1) 2. Explain the CMMI process improvement approach development by CMU (KLP 45.2-1) 3. Describe the structure and levels of the ACMM developed by CMU for the US DoC (KLP 45.3-1) 4. Explain the role of Maturity Assessments in the ADM (KLP 5.5-1, 6.3.4-1, 12.2-1)

4.1.26 Architecture Skills Framework

UNIT 26	Architecture Skills Framework
Purpose	The purpose of this Learning Unit is to help the Candidate understand the Architecture Skills Framework, a classification model for architect roles.
KLP Reference	46-*
Learning Outcome	<p>The Candidate must be able to:</p> <ol style="list-style-type: none"> 1. Explain the purpose of the Architecture Skills Framework and why it is needed (KLP 46.2-1) 2. Describe the benefits of using the Architecture Skills Framework (KLP 46.3-1) 3. Describe the structure of the Architecture Skills Framework, including roles, skills, and proficiency levels (KLP 46.4-1)

5. Indicators of Compliance

The Indicators of Compliance for the Program are The Open Group examinations.

The descriptions of the examinations for each level are maintained by the Certification Authority and displayed on The Open Group website. This includes a description of the examination type (for example, simple multiple choice, complex scenario, etc.), the number of questions, the duration, supervision requirements, whether an examination is open book, the pass score, the language(s) the examination is offered in, and the pre-requisites for taking the examination.

6. Key Learning Point Mapping to the Body of Knowledge

This section defines the Body of Knowledge for TOGAF 9 certification. The layout of this section is based on the table of contents of documents within the Body of Knowledge. For each section of the Body of Knowledge, Key Learning Points (KLPs) are defined together with an indication of the applicable certification level.

Each KLP has a unique reference relating to the section of the TOGAF 9 Body of Knowledge, and the certification level in parentheses.

Where a section of the Body of Knowledge is not applicable to certification, it is either omitted from the table or denoted as follows: KLP n.nn-nn (-).

Documents Comprising the Body of Knowledge

- The TOGAF® Standard, Version 9.2, a standard of The Open Group, April 2018 (C182), published by The Open Group; refer to www.opengroup.org/library/c182
- TOGAF® Series Guide: Business Scenarios, September 2017 (G176), published by The Open Group; refer to www.opengroup.org/library/g176
- TOGAF® Series Guide: The TOGAF Integrated Information Infrastructure Reference Model (III- RM): An Architected Approach to Boundaryless Information Flow™, November 2017 (G179), published by The Open Group; refer to www.opengroup.org/library/g179
- TOGAF® Series Guide: The TOGAF Technical Reference Model (TRM), September 2017 (G175), published by The Open Group; refer to www.opengroup.org/library/g175
- Integrating Risk and Security within a TOGAF® Enterprise Architecture, an Open Group Guide, January 2016 (G152), published by The Open Group; refer to www.opengroup.org/library/g152

The Body of Knowledge Definition

Document, Section		Key Learning Point(s)
The TOGAF Standard, Version 9.2, Part I: Introduction		
1	Introduction	
1.1	Structure of this Document	KLP 1.1-1 (1) The high-level structure of the TOGAF standard, its organization, and contents as shown in Figure 1-1 KLP 1.1-2 (1) The parts of this document KLP 1.1-3 (2) The intention of dividing the document into independent parts
1.2	Structure of the TOGAF Library	KLP 1.2-1 (1) The TOGAF Library

Document, Section		Key Learning Point(s)
1.3	Executive Overview	<p>KLP 1.3-1 (1) What is an enterprise?</p> <p>KLP 1.3-2 (1) Why is an Enterprise Architecture needed?</p> <p>KLP 1.3-3 (1) The benefits of an Enterprise Architecture</p> <p>KLP 1.3-4 (1) What is an Architecture Framework?</p> <p>KLP 1.3-5 (1) Why use the TOGAF standard as a framework for Enterprise Architecture?</p>
1.4	Information on Using the TOGAF Standard	KLP 1.4 (-)
1.5	Why Join The Open Group?	KLP 1.5 (-)
2	Core Concepts	<p>KLP 2.1-1 (1) What is the TOGAF standard?</p> <p>KLP 2.2-1 (1) What is architecture in the context of the TOGAF standard?</p> <p>KLP 2.3-1 (1) What kind of architecture does the TOGAF standard deal with?</p> <p>KLP 2.4-1 (1) Architecture Development Method</p> <p>KLP 2.5-1 (1) Deliverables, artifacts, and building blocks</p> <p>KLP 2.6-1 (1) Enterprise Continuum</p> <p>KLP 2.7-1 (1) Architecture Repository</p> <p>KLP 2.8-1 (1) Establishing and maintaining an Enterprise Architecture Capability</p> <p>KLP 2.9-1 (1) Establishing the Architecture Capability as an operational entity</p> <p>KLP 2.10-1 (1) Using the TOGAF standard with other frameworks</p>
3	Definitions	<p>KLP 3-1 The purpose of the Definitions section</p> <p>KLP 3.1-1 (2) Abstraction</p> <p>KLP 3.2-1 (2) Actor</p> <p>KLP 3.3-1 (1) Application Architecture</p> <p>KLP 3.4-1 (2) Application Component</p> <p>KLP 3.5-1 (2) Application Platform</p> <p>KLP 3.6-1 (1) Architectural Style</p> <p>KLP 3.7-1 (1) Architecture</p> <p><i>(Definitions not listed are applicable to Level 2 only.)</i></p> <p>KLP 3.8-1 (1) Architecture Building Block (ABB)</p> <p>KLP 3.9-1 (1) Architecture Continuum</p> <p>KLP 3.10-1 (1) Architecture Development Method (ADM)</p> <p>KLP 3.11-1 (1) Architecture Domain</p> <p>KLP 3.12-1 (1) Architecture Framework</p> <p>KLP 3.13-1 (1) Architecture Governance</p> <p>KLP 3.16-1 (1) Architecture Principle</p> <p>KLP 3.17-1 (1) Architecture View</p> <p>KLP 3.18-1 (1) Architecture Viewpoint</p>

Document, Section	Key Learning Point(s)
	<p>KLP 3.19-1 (1) Architecture Vision</p> <p>KLP 3.20-1 (1) Artifact</p> <p>KLP 3.21-1 (1) Baseline</p> <p>KLP 3.23-1 (1) Building Block</p> <p>KLP 3.24-1 (1) Business Architecture</p> <p>KLP 3.25-1 (1) Business Capability</p> <p>KLP 3.27-1 (1) Business Governance</p> <p>KLP 3.30-1 (1) Capability</p> <p>KLP 3.34-1 (1) Concern</p> <p>KLP 3.35-1 (1) Course of Action</p> <p>KLP 3.36-1 (1) Data Architecture</p> <p>KLP 3.37-1 (1) Deliverable</p> <p>KLP 3.38-1 (1) Enterprise</p> <p>KLP 3.40-1 (1) Foundation Architecture</p> <p>KLP 3.42-1 (1) Gap</p> <p>KLP 3.43-1 (1) Governance</p> <p>KLP 3.44-1 (1) Information</p> <p>KLP 3.46-1 (1) Information Technology (IT)</p> <p>KLP 3.48-1 (1) Logical</p> <p>KLP 3.49-1 (1) Metadata</p> <p>KLP 3.50-1 (1) Metamodel</p> <p>KLP 3.51-1 (1) Method</p> <p>KLP 3.52-1 (1) Modeling</p> <p>KLP 3.54-1 (1) Objective</p> <p>KLP 3.57-1 (1) Physical</p> <p>KLP 3.59-1 (1) Reference Model (RM)</p> <p>KLP 3.60-1 (1) Repository</p> <p>KLP 3.61-1 (1) Requirement</p> <p>KLP 3.64-1 (2) Segment Architecture</p> <p>KLP 3.65-1 (1) Service</p> <p>KLP 3.69-1 (1) Solution Architecture</p> <p>KLP 3.70-1 (1) Solution Building Block (SBB)</p> <p>KLP 3.72-1 (1) Stakeholder</p> <p>KLP 3.74-1 (1) Strategic Architecture</p> <p>KLP 3.75-1 (1) Target Architecture</p> <p>KLP 3.77-1 (1) Technology Architecture</p> <p>KLP 3.80-1 (1) Transition Architecture</p> <p>KLP 3.81-1 (1) Value Stream</p> <p>KLP 3.82-1 (1) Viewpoint Library</p>

Document, Section		Key Learning Point(s)
The TOGAF Standard, Version 9.2, Part II: Architecture Development Method		
4	Introduction to Part II	
4.1	ADM Overview	KLP 4.1-1 (1) The ADM and the Enterprise Continuum, Architecture Repository, Foundation Architecture, and Supporting Guidelines and Techniques KLP 4.1-2 (1) The existence of supporting guidelines and techniques to use with the ADM and the difference between the two sections: guidelines <i>versus</i> techniques
4.2	Architecture Development Cycle	KLP 4.2.1-1 (1) The Architecture Development Cycle; key points KLP 4.2.2-1 (1) The ADM basic structure, including the phases KLP 4.2.2-2 (1) The phases are divided into steps KLP 4.2.2-3 (1) The versioning of output is managed by version numbers
4.3	Adapting the ADM	KLP 4.3-1 (1) The need to adapt the ADM
4.4	Architecture Governance	KLP 4.4-1 (1) The need to govern the ADM process KLP 4.4-2 (1) The major information areas managed by a governance repository
4.5	Scoping the Architecture	KLP 4.5-1 (1) The reasons for constraining the scope of the architectural activity KLP 4.5-2 (1) The dimensions to define and limit scope of an architecture
4.6	Architecture Integration	KLP 4.6-1 (1) The need for an integration framework that sits above individual architectures
4.7	Summary	KLP 5.7 (-)
5	Preliminary Phase	
5.1	Objectives	KLP 5.1-1 (1) The objectives of the Preliminary Phase
5.2	Inputs	KLP 5.2-1 (2) The inputs for this phase: <ul style="list-style-type: none"> • The TOGAF Library • Other architecture framework(s) • Business strategies, IT strategy, principles, business goals, and business drivers • Governance and legal frameworks • Partnership and contract agreements • Architecture capability • Existing Organizational Model(s) for Enterprise Architecture • Existing Architecture Framework, including method, content, tools, principles, and repository

Document, Section		Key Learning Point(s)
5.3	Steps	<p>KLP 5.3-1 (2) The steps for the phase</p> <p>KLP 5.3.1-1 (2) Scope the enterprise organizations impacted</p> <p>KLP 5.3.2-1 (2) Confirm governance and support frameworks</p> <p>KLP 5.3.3-1 (2) Define and establish Enterprise Architecture team and organization</p> <p>KLP 5.3.4-1 (2) Identify and establish Architecture Principles</p> <p>KLP 5.3.5-1 (2) Tailor the TOGAF framework and, if any, other selected architecture frameworks</p> <p>KLP 5.3.6-1 (2) Develop strategy and implementation plans for tools and techniques</p>
5.4	Outputs	<p>KLP 5.4-1 (2) The outputs for this phase:</p> <ul style="list-style-type: none"> • Organizational Model for Enterprise Architecture • Tailored Architecture Framework, including Architecture Principles • Initial Architecture Repository • Restatement of business principles, business goals, and business drivers • Request for Architecture Work • Architecture Governance Framework • Catalogs
5.5	Approach	<p>KLP 5.5-1 (1) The approach to the Preliminary Phase:</p> <ul style="list-style-type: none"> • Defining the enterprise • Understanding the organizational context • Defining the requirements for architecture work • Establishing Architecture Principles • Adapting the TOGAF ADM to relate to and integrate with other management frameworks • Assessing the level of architecture maturing in the enterprise <p>KLP 5.5.1-1 (1) Enterprise scope</p> <p>KLP 5.5.2-1 (1) Organizational context</p> <p>KLP 5.5.3-1 (1) Requirements for architecture work</p> <p>KLP 5.5.4-1 (1) Principles</p> <p>KLP 5.5.5-1 (1) Management frameworks</p>
6	Phase A: Architecture Vision	
6.1	Objectives	KLP 6.1-1 (1) The objectives of Phase A
6.2	Inputs	<p>KLP 6.2-1 (2) The inputs for this phase:</p> <ul style="list-style-type: none"> • Architecture reference materials • Request for Architecture Work • Business principles, business goals, and business drivers • Organizational Model for Enterprise Architecture • Tailored Architecture Framework, including Architecture Principles • Populated Architecture Repository; that is, existing architecture documentation (framework description, architecture descriptions, existing baseline descriptions, etc.)

Document, Section		Key Learning Point(s)
6.3	Steps	<p>KLP 6.3-1 (2) The steps for the phase</p> <p>KLP 6.3.1-1 (2) Establish the architecture project</p> <p>KLP 6.3.2-1 (2) Identify stakeholders, concerns, and business requirements</p> <p>KLP 6.3.3-1 (2) Confirm and elaborate business goals, business drivers, and constraints</p> <p>KLP 6.3.4-1 (2) Evaluate capabilities</p> <p>KLP 6.3.5-1 (2) Assess readiness for business transformation</p> <p>KLP 6.3.6-1 (2) Define scope</p> <p>KLP 6.3.7-1 (2) Confirm and elaborate Architecture Principles, including business principles</p> <p>KLP 6.3.8-1 (2) Develop Architecture Vision</p> <p>KLP 6.3.9-1 (2) Define the Target Architecture value propositions and KPIs</p> <p>KLP 6.3.10-1 (2) Identify the business transformation risks and mitigation activities</p> <p>KLP 6.3.11-1 (2) Develop Statement of Architecture Work; secure approval</p>
6.4	Outputs	<p>KLP 6.4-1 (2) The outputs for this phase:</p> <ul style="list-style-type: none"> • Approved Statement of Architecture Work • Refined statements of business principles, business goals, and business drivers • Architecture Principles • Capability Assessment • Tailored Architecture Framework • Architecture Vision • Draft Architecture Definition Document, including: <ul style="list-style-type: none"> ○ Baseline Business Architecture ○ Baseline Data Architecture ○ Baseline Application Architecture ○ Baseline Technology Architecture ○ Target Business Architecture ○ Target Data Architecture ○ Target Application Architecture ○ Target Technology Architecture • Communications Plan • Additional content populating the Architecture Repository • Catalogs, matrices, and diagrams
6.5	Approach	<p>KLP 6.5-1 (1) The approach to Phase A</p> <p>KLP 6.5.1-1 (1) General</p> <p>KLP 6.5.2-1 (1) Creating the Architecture Vision</p>
7	Phase B: Business Architecture	
7.1	Objectives	KLP 7.1-1 (1) The objectives of Phase B

Document, Section		Key Learning Point(s)
7.2	Inputs	<p>KLP 7.2-1 (2) The inputs for this phase:</p> <ul style="list-style-type: none"> • Request for Architecture Work • Capability Assessment • Communications Plan • Approved Statement of Architecture Work • Business principles, business goals, and business drivers • Architecture Principles • Enterprise Continuum • Architecture Repository • Architecture Vision • Draft Architecture Definition Document, including: <ul style="list-style-type: none"> ○ Baseline Business Architecture ○ Baseline Data Architecture ○ Baseline Application Architecture ○ Baseline Technology Architecture ○ Target Business Architecture ○ Target Data Architecture ○ Target Application Architecture ○ Target Technology Architecture • Organizational Model for Enterprise Architecture • Tailored Architecture Framework
7.3	Steps	<p>KLP 7.3-1 (2) The steps for the phase</p> <p>KLP 7.3.1-1 (2) Select reference models, viewpoints, and tools</p> <p>KLP 7.3.2-1 (2) Develop Baseline Business Architecture Description</p> <p>KLP 7.3.3-1 (2) Develop Target Business Architecture Description</p> <p>KLP 7.3.4-1 (2) Perform gap analysis</p> <p>KLP 7.3.5-1 (2) Define candidate roadmap components</p> <p>KLP 7.3.6-1 (2) Resolve impacts across the Architecture Landscape</p> <p>KLP 7.3.7-1 (2) Conduct formal stakeholder review</p> <p>KLP 7.3.8-1 (2) Finalize the Business Architecture</p> <p>KLP 7.3.9-1 (2) Create Architecture Definition Document</p>
7.4	Outputs	<p>KLP 7.4-1 (2) The outputs for this phase:</p> <ul style="list-style-type: none"> • Statement of Architecture Work, updated if necessary • Validated business principles, business goals, and business drivers • Architecture Principles • Draft Architecture Definition Document, containing content updates: <ul style="list-style-type: none"> ○ Baseline Business Architecture (detailed), if appropriate ○ Target Business Architecture (detailed) • Views corresponding to selected viewpoints addressing key stakeholder concerns • Draft Architecture Requirements Specification, including content updates: <ul style="list-style-type: none"> ○ Gap analysis results ○ Technical requirements ○ Updated business requirements • Business Architecture components of an Architecture Roadmap • Catalogs, Matrices, and Diagrams

Document, Section		Key Learning Point(s)
7.5	Approach	<p>KLP 7.5-1 (1) The approach to Phase B:</p> <ul style="list-style-type: none"> • General • Developing the Baseline Description • Applying Business Capabilities • Applying Value Streams • Applying the Organization Map • Modeling Techniques • Architecture Repository
8	Phase C: Information Systems Architectures	
8.1	Objectives	KLP 8.1-1 (1) The objectives of Phase C
8.2	Approach	KLP 8.2-1 (2) Sequence of development
9	Phase C: Information Systems Architectures: Data Architecture	
9.1	Objectives	KLP 9.1-1 (1) The objectives of Phase C (Data Architecture)
9.2	Inputs	<p>KLP 9.2-1 (2) The inputs for this phase:</p> <ul style="list-style-type: none"> • Request for Architecture Work • Capability Assessment • Communications Plan • Data principles • Statement of Architecture Work • Architecture Vision • Architecture Repository • Draft Architecture Definition Document, containing: <ul style="list-style-type: none"> ○ Baseline Business Architecture (detailed) ○ Target Business Architecture (detailed) ○ Baseline Data Architecture (high-level) ○ Target Data Architecture (high-level) ○ Baseline Application Architecture (detailed or high-level) ○ Target Application Architecture (detailed or high-level) ○ Baseline Technology Architecture (high-level) ○ Target Technology Architecture (high-level) • Draft Architecture Requirements Specification, including: <ul style="list-style-type: none"> ○ Gap analysis results ○ Relevant technical requirements • Business Architecture components of an Architecture Roadmap • Organizational Model for Enterprise Architecture • Tailored Architecture Framework

Document, Section		Key Learning Point(s)
9.3	Steps	<p>KLP 9.3-1 (2) The steps for the phase</p> <p>KLP 9.3.1 (2) Select reference models, viewpoints, and tools</p> <p>KLP 9.3.2 (2) Develop Baseline Data Architecture Description</p> <p>KLP 9.3.3 (2) Develop Target Data Architecture Description</p> <p>KLP 9.3.4 (2) Perform gap analysis</p> <p>KLP 9.3.5 (2) Define candidate roadmap components</p> <p>KLP 9.3.6 (2) Resolve impacts across the Architecture Landscape</p> <p>KLP 9.3.7 (2) Conduct formal stakeholder review</p> <p>KLP 9.3.8 (2) Finalize the Data Architecture</p> <p>KLP 9.3.9 (2) Create Architecture Definition Document</p>
9.4	Outputs	<p>KLP 9.4-1 (2) The outputs for this phase:</p> <ul style="list-style-type: none"> • Statement of Architecture Work • Validated data principles, or new data principles • Draft Architecture Definition Document, containing content updates: <ul style="list-style-type: none"> ○ Baseline Data Architecture ○ Target Data Architecture • Data Architecture views corresponding to the selected viewpoints, addressing key stakeholder concerns • Draft Architecture Requirements Specification, including content updates: <ul style="list-style-type: none"> ○ Gap analysis results ○ Relevant technical requirements that will apply to this evolution of the Architecture Development Cycle ○ Constraints on the Technology Architecture ○ Updated business requirements ○ Updated application requirements • Data Architecture components of an Architecture Roadmap • Catalogs, matrices, and diagrams
9.5	Approach	KLP 9.5-1 (1) The approach to Phase C (Data Architecture)
10	Phase C: Information Systems Architectures: Application Architecture	
10.1	Objectives	KLP 10.1-1 (1) The objectives of Phase C (Application Architecture)

Document, Section		Key Learning Point(s)
10.2	Inputs	<p>KLP 10.2-1 (2) The inputs for this phase:</p> <ul style="list-style-type: none"> • Request for Architecture Work • Capability Assessment • Communications Plan • Application Principles • Statement of Architecture Work • Architecture Vision • Architecture Repository • Draft Architecture Definition Document, containing: <ul style="list-style-type: none"> ○ Baseline Business Architecture (detailed) ○ Target Business Architecture (detailed) ○ Baseline Data Architecture (detailed or high-level) ○ Target Data Architecture (detailed or high-level) ○ Baseline Application Architecture (high-level) ○ Target Application Architecture (high-level) ○ Baseline Technology Architecture (high-level) ○ Target Technology Architecture (high-level) • Draft Architecture Requirements Specification, including: <ul style="list-style-type: none"> ○ Gap analysis results ○ Relevant technical requirements • Business and Data Architecture components of an Architecture Roadmap • Organizational Model for Enterprise Architecture • Tailored Architecture Framework
10.3	Steps	<p>KLP 10.3-1 (2) The steps for the phase</p> <p>KLP 10.3.1-1 (2) Select reference models, viewpoints, and tools</p> <p>KLP 10.3.2-1 (2) Develop Baseline Application Architecture Description</p> <p>KLP 10.3.3-1 (2) Develop Target Application Architecture Description</p> <p>KLP 10.3.4-1 (2) Perform gap analysis</p> <p>KLP 10.3.5-1 (2) Define candidate roadmap components</p> <p>KLP 10.3.6-1 (2) Resolve impacts across the Architecture Landscape</p> <p>KLP 10.3.7-1 (2) Conduct formal stakeholder review</p> <p>KLP 10.3.8-1 (2) Finalize the Application Architecture</p> <p>KLP 10.3.9-1 (2) Create Architecture Definition Document</p>

Document, Section		Key Learning Point(s)
10.4	Outputs	<p>KLP 10.4-1 (2) The outputs for this phase:</p> <ul style="list-style-type: none"> • Statement of Architecture Work • Validated application principles, or new application principles • Draft Architecture Definition Document, containing content updates: <ul style="list-style-type: none"> ○ Baseline Application Architecture ○ Target Application Architecture • Application Architecture views corresponding to the selected viewpoints, addressing key stakeholder concerns • Draft Architecture Requirements Specification, including content updates: <ul style="list-style-type: none"> ○ Gap analysis results ○ Relevant technical requirements that will apply to this evolution of the Architecture Development Cycle ○ Constraints on the Technology Architecture ○ Updated business requirements ○ Updated data requirements • Application Architecture components of an Architecture Roadmap • Catalogs, matrices, and diagrams
10.5	Approach	KLP 10.5-1 (1) The approach to Phase C (Application Architecture)
11	Phase D: Technology Architecture	
11.1	Objectives	KLP 11.1-1 (1) The objectives of Phase D
11.2	Inputs	<p>KLP 11.2-1 (2) The inputs for this phase:</p> <ul style="list-style-type: none"> • Request for Architecture Work • Capability Assessment • Communications Plan • Technology principles • Statement of Architecture Work • Architecture Vision • Architecture Repository • Draft Architecture Definition Document, containing: <ul style="list-style-type: none"> ○ Baseline Business Architecture (detailed) ○ Target Business Architecture (detailed) ○ Baseline Data Architecture (detailed) ○ Target Data Architecture (detailed) ○ Baseline Application Architecture (detailed) ○ Target Application Architecture (detailed) ○ Baseline Technology Architecture (high-level) ○ Target Technology Architecture (high-level) • Draft Architecture Requirements Specification, including: <ul style="list-style-type: none"> ○ Gap analysis results ○ Relevant technical requirements • Business, Data, and Application Architecture components of an Architecture Roadmap • Organizational Model for Enterprise Architecture • Tailored Architecture Framework

Document, Section		Key Learning Point(s)
11.3	Steps	<p>KLP 11.3-1 (2) The steps for the phase</p> <p>KLP 11.3.1 (2) Select reference models, viewpoints, and tools</p> <p>KLP 11.3.2 (2) Develop Baseline Technology Architecture Description</p> <p>KLP 11.3.3 (2) Develop Target Technology Architecture Description</p> <p>KLP 11.3.4 (2) Perform gap analysis</p> <p>KLP 11.3.5 (2) Define candidate roadmap components</p> <p>KLP 11.3.6 (2) Resolve impacts across the Architecture Landscape</p> <p>KLP 11.3.7 (2) Conduct formal stakeholder review</p> <p>KLP 11.3.8 (2) Finalize the Technology Architecture</p> <p>KLP 11.3.9 (2) Create Architecture Definition Document</p>
11.4	Outputs	<p>KLP 11.4-1 (2) The outputs for this phase:</p> <ul style="list-style-type: none"> • Statement of Architecture Work, updated if necessary • Validated technology principles or new technology principles (if generated here) • Draft Architecture Definition Document, containing content updates: <ul style="list-style-type: none"> ○ Baseline Technology Architecture ○ Target Technology Architecture • Technology Architecture views corresponding to the selected viewpoints, addressing key stakeholder concerns • Draft Architecture Requirements Specification, including content updates: <ul style="list-style-type: none"> ○ Gap analysis results ○ Updated technology requirements • Technology Architecture components of an Architecture Roadmap • Catalogs, matrices, and diagrams
11.5	Approach	<p>KLP 11.5-1 (1) The approach to Phase D:</p> <ul style="list-style-type: none"> • Emerging Technologies • Architecture Repository
12	Phase E: Opportunities and Solutions	
12.1	Objectives	KLP 12.1-1 (1) The objectives of Phase E

Document, Section		Key Learning Point(s)
12.2	Inputs	<p>KLP 12.2-1 (2) The inputs for this phase:</p> <ul style="list-style-type: none"> • Request for Architecture Work • Capability Assessment • Communications Plan • Statement of Architecture Work • Architecture Vision • Architecture Repository • Draft Architecture Definition Document • Draft Architecture Requirements Specification • Change Requests for existing programs and projects • Candidate Architecture Roadmap components from Phases B, C, and D • Planning methodologies • Product information • Organizational Model for Enterprise Architecture • Governance models and frameworks • Tailored Architecture Framework
12.3	Steps	<p>KLP 12.3-1 (2) The steps for the phase</p> <p>KLP 12.3.1-1 (2) Determine/confirm key corporate change attributes</p> <p>KLP 12.3.2-1 (2) Determine business constraints for implementation</p> <p>KLP 12.3.3-1 (2) Review and consolidate gap analysis results from Phases B to D</p> <p>KLP 12.3.4-1 (2) Review consolidated requirements across related business functions</p> <p>KLP 12.3.5-1 (2) Consolidate and reconcile interoperability requirements</p> <p>KLP 12.3.6-1 (2) Refine and validate dependencies</p> <p>KLP 12.3.7-1 (2) Confirm readiness and risk for business transformation</p> <p>KLP 12.3.8-1 (2) Formulate Implementation and Migration Strategy</p> <p>KLP 12.3.9-1 (2) Identify and group major work packages</p> <p>KLP 12.3.10-1 (2) Identify Transition Architectures</p> <p>KLP 12.3.11-1 (2) Create the Architecture Roadmap & Implementation and Migration Plan</p>
12.4	Outputs	<p>KLP 12.4-1 (2) The outputs for this phase:</p> <ul style="list-style-type: none"> • Statement of Architecture Work, updated if necessary • Architecture Vision, updated if necessary • Draft Architecture Definition Document • Implementation and Migration Plan • Draft Architecture Requirements Specification, updated if necessary • Capability Assessments • Architecture Roadmap
12.5	Approach	KLP 12.5-1 (1) The approach to Phase E
13	Phase F: Migration Planning	
13.1	Objectives	KLP 13.1-1 (1) The objectives of Phase F

Document, Section		Key Learning Point(s)
13.2	Inputs	<p>KLP 13.2-1 (2) The inputs for this phase:</p> <ul style="list-style-type: none"> • Request for Architecture Work • Capability Assessment • Communications Plan • Governance models and frameworks • Statement of Architecture Work • Architecture Vision • Architecture Repository • Draft Architecture Definition Document • Draft Architecture Requirements Specification • Change Requests for existing programs and projects • Architecture Roadmap (Version 0.1) • Implementation and Migration Plan (Version 0.1) • Organizational Model for Enterprise Architecture • Tailored Architecture Framework
13.3	Steps	<p>KLP 13.3-1 (2) The steps for the phase</p> <p>KLP 13.3.1-1 (2) Confirm management framework interactions for the Implementation and Migration Plan</p> <p>KLP 13.3.2-1 (2) Assign a business value to each work package</p> <p>KLP 13.3.3-1 (2) Estimate resource requirements, project timings, and availability/delivery vehicle</p> <p>KLP 13.4.4-1 (2) Prioritize the migration projects through the conduct of a cost/benefit assessment and risk validation</p> <p>KLP 13.3.5-1 (2) Confirm Architecture Roadmap and update Architecture Definition Document</p> <p>KLP 13.3.6-1 (2) Generate the Implementation and Migration Plan</p> <p>KLP 13.3.7-1 (2) Complete the Architecture Development Cycle and document lessons learned</p>
13.4	Outputs	<p>KLP 13.4-1 (2) The outputs for this phase:</p> <ul style="list-style-type: none"> • Implementation and Migration Plan • Finalized Architecture Definition Document • Finalized Architecture Requirements Specification • Finalized Architecture Roadmap • Re-usable Architecture Building Blocks • Requests for Architecture Work for the architecture aspects of implementation projects (if any) • Implementation Governance Model • Change Requests for the Architecture Capability arising from lessons learned
13.5	Approach	KLP 13.5-1 (1) The approach to Phase F
14	Phase G: Implementation Governance	
14.1	Objectives	KLP 14.1-1 (1) The objectives of Phase G

Document, Section		Key Learning Point(s)
14.2	Inputs	<p>KLP 14.2-1 (2) The inputs for this phase:</p> <ul style="list-style-type: none"> • Request for Architecture Work • Capability Assessment • Statement of Architecture Work • Architecture Vision • Architecture Repository • Architecture Definition Document • Architecture Requirements Specification • Architecture Roadmap • Implementation Governance Model • Architecture Contract • Request for Architecture Work identified during Phases E and F • Implementation and Migration Plan • Organizational Model for Enterprise Architecture • Tailored Architecture Framework
14.3	Steps	<p>KLP 14.3-1 (2) The steps for the phase</p> <p>KLP 14.3.1-1 (2) Confirm scope and priorities for deployment with development management</p> <p>KLP 14.3.2-1 (2) Identify deployment resources and skills</p> <p>KLP 14.3.3-1 (2) Guide development of solutions deployment</p> <p>KLP 14.3.4-1 (2) Perform Enterprise Architecture Compliance Reviews</p> <p>KLP 14.3.5-1 (2) Implement business and IT operations</p> <p>KLP 14.3.6-1 (2) Perform post-implementation review and close the implementation</p>
14.4	Outputs	<p>KLP 14.4-1 (2) The outputs for this phase:</p> <ul style="list-style-type: none"> • Architecture Contract (signed) • Compliance Assessments • Change Requests • Architecture-compliant solutions deployed, including: <ul style="list-style-type: none"> ○ The architecture-compliant implemented system ○ Populated Architecture Repository ○ Architecture compliance recommendations and dispensations ○ Recommendations on service delivery requirements ○ Recommendations on performance metrics ○ Service-Level Agreements (SLAs) ○ Architecture Vision, updated post-implementation ○ Architecture Definition Document, updated post-implementation ○ Business and IT operating models for the implemented solution
14.5	Approach	KLP 14.5-1 (1) The approach to Phase G
15	Phase H: Architecture Change Management	
15.1	Objectives	KLP 15.1-1 (1) The objectives of Phase H

Document, Section		Key Learning Point(s)
15.2	Inputs	<p>KLP 15.2-1 (2) The inputs for this phase:</p> <ul style="list-style-type: none"> • Change Requests due to technology changes • Change Requests due to business changes • Changes Requests from lessons learned • Statement of Architecture Work • Architecture Vision • Architecture Repository • Architecture Definition Document • Architecture Requirements Specification • Architecture Roadmap • Implementation Governance Model • Architecture Contract (signed) • Implementation and Migration Plan • Compliance Assessments • Organizational Model for Enterprise Architecture • Tailored Architecture Framework
15.3	Steps	<p>KLP 15.3-1 (2) The steps for the phase</p> <p>KLP 15.3.1-1 (2) Establish value realization process</p> <p>KLP 15.3.2-1 (2) Deploy monitoring tools</p> <p>KLP 15.3.3-1 (2) Manage risks</p> <p>KLP 15.3.4-1 (2) Provide analysis for architecture change management</p> <p>KLP 15.3.5-1 (2) Develop change requirements to meet performance targets</p> <p>KLP 15.3.6-1 (2) Manage governance process</p> <p>KLP 15.3.7-1 (2) Activate the process to implement change</p>
15.4	Outputs	<p>KLP 15.4-1 (2) The outputs for this phase:</p> <ul style="list-style-type: none"> • Architecture updates • Changes to architecture framework and principles • New Request for Architecture Work, to move to another cycle of the ADM • Statement of Architecture Work, updated if necessary • Architecture Contract, updated if necessary • Compliance Assessments, updated if necessary
15.5	Approach	KLP 15.5-1 (1) The approach to Phase H
16	ADM Architecture Requirements Management	
16.1	Objectives	<p>KLP 16.1-1 (1) Requirements Management applies to all phases</p> <p>KLP 16.1-2 (1) It is a dynamic process central to driving the ADM</p>

Document, Section		Key Learning Point(s)
16.2	Inputs	<p>KLP 16.2-1 (2) The inputs for this phase:</p> <ul style="list-style-type: none"> • Architecture requirements, populating an Architecture Requirements Specification • Requirements Impact Assessment • Architecture Repository • Organizational Model for Enterprise Architecture • Tailored Architecture Framework • Statement of Architecture Work • Architecture Vision
16.3	Steps	<p>KLP 16.3-1 (2) Requirements Management steps</p> <p>KLP 16.3-2 (2) The correspondence of the steps to the ADM phases</p>
16.4	Outputs	<p>KLP 16.4-1 (2) The outputs for this phase:</p> <ul style="list-style-type: none"> • Requirements Impact Assessment • Updated Architecture Requirements Specification, if necessary
16.5	Approach	KLP 16.5-1 (1) The approach to ADM Requirements Management
The TOGAF Standard, Version 9.2, Part III: ADM Guidelines and Techniques		
17	Introduction to Part III	<p>KLP 17.1-1 (1) The contents of Part III including an overview of the purpose of each of the guidelines and techniques provided</p> <p>KLP 17.2-1 (¹) Techniques for Architecture Development</p> <p>KLP 17.3-1 (1) Using the TOGAF framework with different architectural styles</p>
18	Applying Iteration to the ADM	<p>KLP 18.1-1 (2) Overview</p> <p>KLP 18.2-1 (2) Iteration cycles</p> <p>KLP 18.3-1 (2) Classes of architecture engagement</p> <p>KLP 18.4-1 (2) Approaches to Architecture Development</p> <p>KLP 18.5-1 (2) Iteration considerations</p> <p>KLP 18.6-1 (2) Conclusions</p>
19	Applying the ADM across the Architecture Landscape	<p>KLP 19.1-1 (2) Overview</p> <p>KLP 19.2-1 (2) Architecture Landscape</p> <p>KLP 19.3-1 (2) Organizing the Architecture Landscape to understand the state of the enterprise</p> <p>KLP 19.4-1 (2) Developing architectures at different levels</p>

¹ Covered in specific sections of the KLP mapping.

Document, Section		Key Learning Point(s)
20	Architecture Principles	<p>KLP 20.1-1 (1) The need for Architecture Principles and where they are used within the ADM</p> <p>KLP 20.2-1 (2) Characteristics of Architecture Principles</p> <p>KLP 20.3-1 (1) A standard template</p> <p>KLP 20.4-1 (2) Developing Architecture Principles</p> <p>KLP 20.4-2 (1) Criteria that distinguish a good set of principles</p> <p>KLP 20.5-1 (2) Applying Architecture Principles</p> <p>KLP 20.6-1 (2) Example sets of principles</p>
21	Stakeholder Management	<p>KLP 21.1-1 (2) Introduction</p> <p>KLP 21.2-1 (2) The approach to stakeholder management</p> <p>KLP 21.3-1 (2) Steps in the stakeholder management process</p> <p>KLP 21.4-1 (2) Template Stakeholder Map</p>
22	Architecture Patterns	<p>KLP 22.1-1 (1) Characteristics of Architecture Patterns</p> <p>KLP 22.1-2 (-) How to use Architecture Patterns</p>
23	Gap Analysis	<p>KLP 23.1-1 (2) Where the Gap Analysis technique is used within the TOGAF standard and why</p> <p>KLP 23.2-1 (1) The technique of Gap Analysis</p>
24	Migration Planning Techniques	<p>KLP 24.1-1 (2) Implementation Factor Assessment and Deduction Matrix</p> <p>KLP 24.2-1 (2) Consolidated Gaps, Solutions, and Dependencies Matrix</p> <p>KLP 24.3-1 (2) Architecture Definition Increments Table</p> <p>KLP 24.4-1 (2) Transition Architecture State Evolution Table</p> <p>KLP 24.5-1 (2) Business Value Assessment Technique</p>
25	Interoperability Requirements	<p>KLP 25.1-1 (1) Where the determination of interoperability is used within the ADM</p> <p>KLP 25.2-1 (1) Defining interoperability</p> <p>KLP 25.4-1 (2) Refining interoperability</p> <p>KLP 25.5-1 (2) Determining Interoperability Requirements</p> <p>KLP 25.6-1 (2) Reconciling Interoperability Requirements with potential solutions</p>

Document, Section		Key Learning Point(s)
26	Business Transformation Readiness Assessment	<p>KLP 26.1-1 (1) Where the Business Transformation Readiness Assessment is used within the ADM</p> <p>KLP 26.1-2 (1) Characteristics of the Business Transformation enablement program</p> <p>KLP 26.2-1 (2) Identify factors that influence Architecture Transformation Readiness</p> <p>KLP 26.3-1 (2) Understand how to apply Architecture Maturity Models</p>
27	Risk Management	<p>KLP 27.1-1 (1) Where Risk Management is used within the ADM</p> <p>KLP 27.1-2 (1) Characteristics of Risk Management</p> <p>KLP 27.4-1 (2) Determine requirements for risk assessments</p> <p>KLP 27.7-1 (2) Risk monitoring and governance in Phase G</p>
28	Capability-Based Planning	<p>KLP 28.1-1 (1) Characteristics of Capability-Based Planning</p> <p>KLP 28.4-2 (2) Applying Capability-Based Planning in an Enterprise Architecture context</p>
The TOGAF Standard, Version 9.2, Part IV: Architecture Content Framework		
29	Introduction to Part IV	<p>KLP 29.1-1 (1) An overview of the Architecture Content Framework including explanations of key concepts: deliverable, artifact, building block, and their relationship</p> <p>KLP 29.2-1 (2) An introduction to the Content Metamodel</p> <p>KLP 29.3-1 (2) The Architecture Content Framework and the TOGAF ADM</p>
30	Content Metamodel	
30.1	Overview	KLP 30-1 (-)
30.2	Core Metamodel Vision and Concepts	KLP 30.2-1 (2) Describe the metamodel entities that form the core of the TOGAF metamodel
30.3	Content Metamodel in Detail	<p>KLP 30.3.1-1 (-) The relationships between the metamodel entities in the Core Content Metamodel</p> <p>KLP 30.3.2-1 (-) Additional metamodel entities introduced into the Core Content Metamodel from the extensions</p> <p>KLP 30.3.2-2 (-) Relationships between entities in the full metamodel</p>
30.4	Content Metamodel Extensions	<p>KLP 30.4-1 (-) Content Metamodel extensions</p> <p>KLP 30.4.1-1 (-) The Governance Extension</p> <p>KLP 30.4.2-1 (-) The Services Extension</p> <p>KLP 30.4.3-1 (-) The Process Modeling Extension</p> <p>KLP 30.4.4-1 (-) The Data Extension</p> <p>KLP 30.4.5-1 (-) The Infrastructure Consolidation Extension</p> <p>KLP 30.4.6-1 (-) The Motivation Extension</p>

Document, Section		Key Learning Point(s)
31	Architectural Artifacts	<p>KLP 31.1-1 (1) The basic concepts surrounding artifacts – architecture, architecture description, stakeholders, concerns, architecture views, architecture viewpoints</p> <p>KLP 31.1-1 (-) The basic concepts surrounding artifacts – system</p> <p>KLP 31.1-2 (1) A simple example of a view and viewpoint</p> <p>KLP 31.1-3 (1) The relationship between stakeholders, concerns, views, and viewpoints</p> <p>KLP 31.2-1 (1) The architecture view creation process</p> <p>KLP 31.6-1 (2) The Catalog, Matrix, and Diagram concept</p> <p>KLP 31.6-2 (2) Artifacts associated with the Core Content Metamodel and Extensions</p>
32	Architecture Deliverables	<p>KLP 32.1-1 (1) Introduction (to architecture deliverables)</p> <p>KLP 32.1-2 (2) Where within the ADM each architecture deliverable is used</p> <p>KLP 32.2-1 (1) The purpose of each architecture deliverable</p> <p>KLP 32.2-2 (2) The high-level contents of each architecture deliverable</p>
33	Building Blocks	
33.1	Overview	KLP 33.1 (-)
33.2	Introduction to Building Blocks	<p>KLP 33.2-1 (1) The characteristics of a building block; the characteristics of a good building block</p> <p>KLP 33.2-2 (1) The distinction between Architecture Building Blocks and Solution Building Blocks</p> <p>KLP 33.2-3 (2) The characteristics and specification content of Architecture Building Blocks?</p> <p>KLP 33.2-4 (2) The characteristics and specification content of Solution Building Blocks?</p>
33.3	Building Blocks and the ADM	<p>KLP 33.3-1 (1) Building blocks and the ADM</p> <p>KLP 33.3-2 (2) The classes of building blocks</p> <p>KLP 33.3-3 (2) Building block evolution through the phases of the ADM</p>
The TOGAF Standard, Version 9.2, Part V: Enterprise Continuum and Tools		
34	Introduction to Part V	KLP 34-1 (-)

Document, Section		Key Learning Point(s)
35	Enterprise Continuum	<p>KLP 35.1-1 (1) The definition of the Enterprise Continuum</p> <p>KLP 35.1-2 (1) The relationship between the Enterprise Continuum and the Architecture Repository</p> <p>KLP 35.2-1 (1) How the Enterprise Continuum is used in organizing and developing architectures</p> <p>KLP 35.2-2 (1) How the Enterprise Continuum promotes re-use of architecture artifacts</p> <p>KLP 35.3-1 (1) The constituents of the Enterprise Continuum</p> <p>KLP 35.3-2 (1) The purpose of the Enterprise Continuum</p> <p>KLP-35.4-1 (2) The assets that can be managed through the Enterprise Continuum</p> <p>KLP 35.4-2 (2) The types of contextual factors managed in the Enterprise Continuum</p> <p>KLP 35.4-3 (1) The purpose of the Architecture Continuum</p> <p>KLP 35.4-4 (1) The stages of architecture evolution defined in the Architecture Continuum</p> <p>KLP 35.4-5 (2) The progression of evolutionary transformation of architectures in the Architecture Continuum</p> <p>KLP 35.4-6 (1) The purpose of the Solutions Continuum</p> <p>KLP 35.4-7 (1) The stages of architecture evolution defined in the Solutions Continuum</p> <p>KLP 35.4-8 (2) The progression of evolutionary transformation of solution architectures in the Solutions Continuum</p> <p>KLP 35.5-1 (1) The relationship between the Enterprise Continuum and the ADM</p> <p>KLP 35.6-1 (2) The relationship between the three continua as the architecture evolves</p>
36	Architecture Partitioning	
36.1	Overview	<p>KLP 36.1-1 (2) The definition of Architecture Partitioning</p> <p>KLP 36.1-2 (2) The reasons for partitioning an Enterprise Architecture</p>
36.2	Applying Classification to Create Partitioned Architectures	<p>KLP 36.2-1 (2) What are the classification criteria to support partitioning of solutions?</p> <p>KLP 36.2-2 (-) (<i>Not in use</i>)</p> <p>KLP 36.2-3 (2) The key partitioning activities for the Preliminary Phase of the ADM</p>
36.3	Integration	KLP 36.3-1 (2) Architecture Content Integration for Partitioned Architectures
37	Architecture Repository	KLP 37-1 (1) What an Architecture Repository is

Document, Section		Key Learning Point(s)
37.1	Overview	KLP 37.1-1 (2) The relationship between the Architecture Repository and the Enterprise Repository KLP 37.1-2 (1) The classes of information held in an Architecture Repository
37.2	Architecture Landscape	KLP 37.2-1 (1) The three levels of the Architecture Landscape
37.3	Reference Library	KLP 37.3-1 (2) The types of content can be held in the Reference Library of the Architecture Repository
37.4	Standards Information Base	KLP 37.4-1 (1) The Standards Information Base (overview) KLP 37.4-2 (2) The classes of standards held in the Standards Information Base KLP 37.4-3 (2) The standards lifecycle
37.5	Governance Log	KLP 37.5-1 (2) The Governance Log (overview) KLP 37.5-2 (2) The types of content that can be managed in the Governance Log
37.6	The Architecture Requirements Repository	KLP 37.6-1 (2) The Architecture Requirements Repository (overview) KLP 37.6-2 (2) The contents of the Architecture Requirements Repository
37.7	Solutions Landscape	KLP 37.7-1 (2) The Solutions Landscape
37.8	The Enterprise Repository	KLP 37.8-1 (2) The Enterprise Repository
38	Tools for Architecture Development	
38.1	Overview	
38.2	Issues in Tool Standardization	KLP 38.2-1 (-) The high-level issues in tool standardization
The TOGAF Standard, Version 9.2, Part VI: Architecture Capability Framework		
39	Introduction to Part VI	KLP 39.1 (1) Overview
40	Establishing an Architecture Capability	KLP 40.1-1 (1) The approach of using the ADM to establish an Architecture Capability
41	Architecture Board	KLP 41.1-1 (1) The need for an Architecture Board KLP 41.2-1 (1) The responsibilities of an Architecture Board KLP 41.3-1 (2) Setting up an Architecture Board KLP 41.4-1 (2) Operating an Architecture Board

Document, Section		Key Learning Point(s)
42	Architecture Compliance	KLP 42.1-1 (1) The need for Architecture Compliance KLP 42.2-1 (1) The meaning of Architecture Compliance KLP 42.3-1 (1) The purpose of Architecture Compliance Reviews KLP 42.4-1 (1) The Architecture Compliance Review process KLP 42.6-1 (2) How to tailor and conduct an Architecture Compliance Review
43	Architecture Contracts	KLP 43.1-1 (1) The role of Architecture Contracts KLP 43.2-1 (2) Contents of Architecture Contracts KLP 43.3-1 (2) Relationship to Architecture Governance
44	Architecture Governance	KLP 44.1-1 (1) What Architecture Governance is (nature, characteristics, etc.) KLP 44.2-1 (1) The main concepts that make up an Architecture Governance framework KLP 44.2-2 (1) The benefits of Architecture Governance KLP 44.3-1 (1) The key success factors for Architecture Governance in practice
45	Architecture Maturity Models	KLP 45.1-1 (2) The role of Capability Maturity Models KLP 45.2-1 (2) The evolution and adoption of CMMI KLP 45.3-1 (2) The concepts and level of the US Department of Commerce Architecture Capability Maturity Model framework KLP 45.3-2 (2) The relationship of levels of the ACMM to the TOGAF ADM KLP 45.4-1 (2) The existence of other Architecture Capability Maturity Models
46	Architecture Skills Framework	KLP 46.2-1 (2) The need for the Architecture Skills Framework KLP 46.3-1 (2) Benefits of adopting the framework KLP 46.4-1 (2) Skills and categories of the framework
Open Group Guide: Integrating Risk and Security within a TOGAF® Enterprise Architecture		
SEC	Security Architecture and the ADM	KLP SEC.1-1 (2) An Introduction to Enterprise Security Architecture KLP SEC.3-1 (-) Enterprise Security Architecture in detail KLP SEC.4-1 (2) Security as a cross-cutting concern KLP SEC.5-1 (2) Security and risk concepts in the TOGAF ADM
TOGAF® Series Guide: Business Scenarios		
BS	Business Scenarios	KLP BS.1-1 (1) What a Business Scenario is and its purpose KLP BS.1-2 (1) When the Business Scenario technique is used within the TOGAF ADM KLP BS.3-1 (2) The contents of a Business Scenario KLP BS.7-1 (2) Guidelines on developing Business Scenarios KLP BS.9-1 (2) Guidelines on goals and objectives
TOGAF® Series Guide: The TOGAF Technical Reference Model (TRM)		
TRM.1	Introduction	KLP TRM.1 (-) Introduction to the TOGAF Technical Reference Model

Document, Section		Key Learning Point(s)
TRM.2	Concepts	KLP TRM.2-1 (1) The role of the Technical Reference Model in the Foundation Architecture KLP TRM.2-2 (2) TRM components KLP TRM.2-3 (-) Other TRMs
TRM.3	High-Level Breakdown	KLP TRM.3-1 (2) The major entities in the TOGAF TRM KLP TRM.3-2 (2) The main architecture objectives that can be achieved by using the TRM
TRM.4	TRM in Detail	KLP TRM.4-1 (1) The detailed Technical Reference Model KLP TRM.4-2 (2) The difference between a business application and an infrastructure application KLP TRM.4-3 (2) The Application Platform Interface KLP TRM.4-4 (2) The Communications Infrastructure Interface KLP TRM.4-5 (2) The Application Platform concept
TRM.5	Application Platform – Taxonomy	KLP TRM.5-1 (2) The Platform Services Taxonomy KLP TRM.5-2 (2) The Service Quality Taxonomy
TRM.6	Detailed Platform Taxonomy	KLP TRM.6-1 (1) Detailed Platform Taxonomy
TOGAF® Series Guide: The TOGAF Integrated Information Infrastructure Reference Model (III- RM): An Architected Approach to Boundaryless Information Flow™		
IIIRM	Integrated Information Infrastructure Reference Model	KLP IIIRM.1-1 (1) Overview: The basic concepts of the III-RM KLP IIIRM.1-2 (1) The relationship of the III-RM to the concept of Boundaryless Information Flow KLP IIIRM.1.4-1 (2) The key business and technical drivers for Boundaryless Information Flow KLP IIIRM.1.4-2 (2) How the III-RM fulfils the solutions space for Boundaryless Information Flow KLP IIIRM.2-1 (2) The high-level view of the III-RM KLP IIIRM.3-1 (2) The detailed taxonomy

7. Rationale (Informative)

This section contains informative rationale.

7.1 Background

The *Background* section is derived from the *Certification Policy* document and provides a brief introduction and terminology and definitions used in the document.

7.2 Conformance Terminology

This section explains the approach taken in defining Learning Outcomes for a Candidate, and the terms used. It is explicitly stated that this approach does not mandate the structure, order, or duration of taught modules in an Accredited Training Course (ATC). Trainers are free to structure courses as they see fit. It is expected that accredited trainers will tailor a course to the specific audience, its experience, and needs. So, for example, some courses might be Level 1 training courses, some Level 2, or perhaps the course might be part of a custom training program, a component part of which is certification to the TOGAF 9 Body of Knowledge.

7.3 Conformance Requirements (Level 1)

The *Conformance Requirements* are documented as the Learning Outcomes for a Candidate. These have been organized into a set of Learning Units for the two levels of certification addressed in this document.

A Learning Unit is a related set of Learning Outcomes related to Key Learning Points (KLPs) derived from the TOGAF 9 Body of Knowledge, where a Learning Outcome is typically a 2 to 15-minute self-contained learning object. It is expected that a Learning Unit would equate to between 30 and 90 minutes of taught learning equivalence.

7.4 Conformance Requirements (Level 2)

The Learning Units in Level 2 require a deeper understanding than Level 1, and are phrased accordingly.

7.5 Indicators of Compliance

This section documents that the descriptions of the measurement of attainment to the levels can be located from The Open Group certification website.

7.6 Key Learning Point Mapping to the Body of Knowledge

This section contains the definition of the Body of Knowledge for TOGAF 9 certification. This includes the list of documents referenced in the Body of Knowledge, and is structured into sections corresponding to section of those documents. For each section, KLPs are defined together with a classification of whether a KLP should be at Level 1 or Level 2. These document the sections of the document in scope for the Body of Knowledge. The Learning Units relate to the desired Learning Outcomes for a section of the

Body of Knowledge. The Learning Units refer to the KLPs, thus providing traceability of requirements back to the Body of Knowledge itself.

For those migrating from the TOGAF 9.1 Body of Knowledge, the KLP references can be mapped as follows:

TOGAF 9.1 KLP main section numbering is updated as follows:

- Sections 1-3 are unchanged, 5-20 (–1), 23-25 (–3), 27-42 (–4), 45-52 (–6); for example, KLP 45.x will now be KLP 39.x
- TOGAF 9.1 KLP 21.x is now KLP SEC.x
- TOGAF 9.1 KLP 22.x is no longer in the Body of Knowledge
- TOGAF 9.1 KLP 26.x is now KLP BS.x
- TOGAF 9.1 KLP 43.x is now KLP TRM.x
- TOGAF 9.1 KLP 44.x is now KLP IIIRM.x

8. Change Log

This section records key changes to this document with focus on the Learning Units.

8.1 General

The Body of Knowledge is revised to support the latest edition of the TOGAF standard, including the movement of some material to the TOGAF Library in the form of TOGAF Series Guides.

8.2 Level 1

Learning Unit 1

A new Learning Outcome is added related to the TOGAF Library.

Learning Unit 3

The following definitions are added: Architectural Style, Architecture Continuum, Architecture Governance, Architecture View, Architecture Viewpoint, Artifact, Business Capability, Course of Action, Service, Value Stream, Viewpoint Library.

Learning Unit 6

The approach to Phase B is extensively revised.

The approach to Phase D adds emphasis on emerging technologies.

Learning Unit 7

A Learning Outcome is added on use of the TOGAF ADM in the context of a specific architectural style.

Learning Unit 9

View and Viewpoint are renamed to Architecture View and Architecture Viewpoint, respectively. The standard has aligned its terminology in this area with ISO/IEC/IEEE 42010:2011.

8.3 Level 2

The references to Security Architecture are now to an external guide. As that contains more material than before, the Learning Outcomes have been rephrased as “briefly explain”.

The SOA Learning Unit is withdrawn.

Learning Unit 6

Learning Outcome 3 has been reworked as the example architecture views have been removed from the base standard.

Learning Unit 22

Additional information areas are now considered part of the Architecture Repository.

Learning Unit 24

The Open Group Guide: Integrating Risk and Security within a TOGAF® Enterprise Architecture (G152) replaces TOGAF 9.1 Chapter 21 in the Body of Knowledge. The Learning Outcomes are revised. They use “briefly explain” to stay at a comparable level to the prior Body of Knowledge.

Acknowledgements

The Open Group gratefully acknowledges the contributions to this document by the following participants of the Key Learning Points Definition Team and the Architecture Forum Certification Standing Committee:

- Corinne Brouch
- Cindi de la Cruz
- Bill Estrem
- Len Fehskens
- Dave van Gelder
- Chris Greenslade
- Judith Jones
- Andrew Josey
- Tim Kostyk
- Louw Labuschagne
- Mike Lambert
- Ian McCall
- Wanda McKenzie
- Graham Meaden
- Paul van der Merwe
- Sankaran Prithviraj
- James de Raeve
- Sarina Viljeon
- Vish Viswanathan
- Bob Weisman