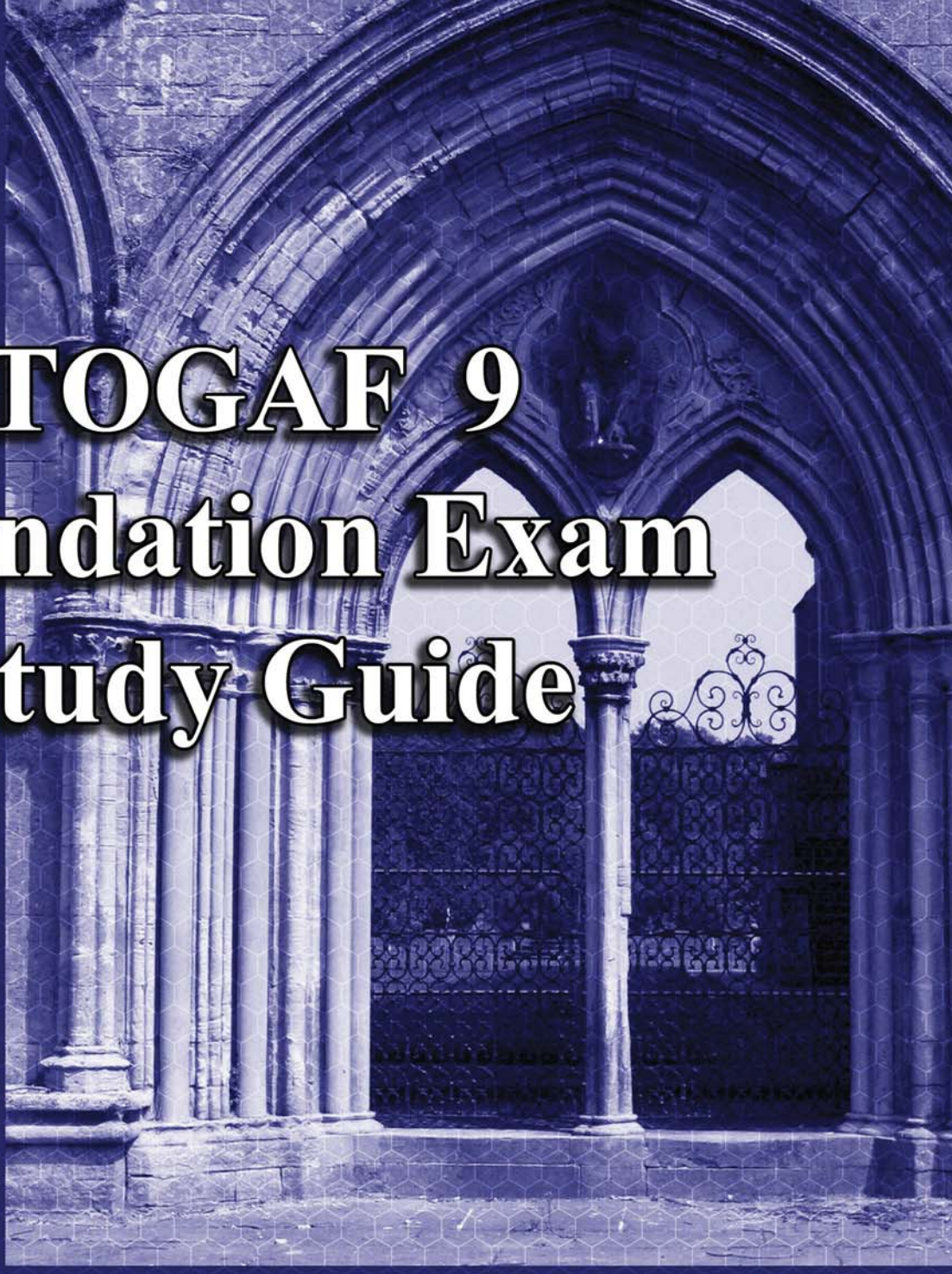

TOGAF 9 Foundation Exam Study Guide

For architects who need to learn the foundations of TOGAF quickly

hexOpus

Kevin Lindley

TOGAF 9
Foundation Exam
Study Guide

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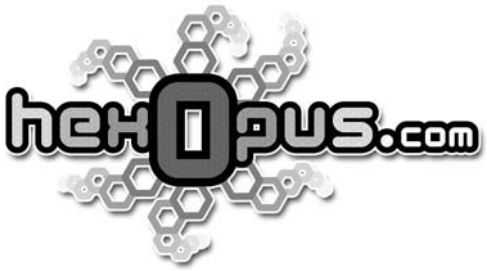


TABLE OF CONTENTS

This chapter covers the following exam subjects:

- The TOGAF certification program.
- Distinguishing between the levels of TOGAF certification.

CHAPTER 1

Introduction

There is a high demand for professionals in the information technology (IT) industry, particularly if you can demonstrate that you are a certified architect. You have made the right decision to pursue certification because being TOGAF certified will give you a distinct advantage in this highly-competitive market.

This Study Guide is intended to help you on your path towards becoming a TOGAF certified architect by providing you with the details you need to help your learn about TOGAF 9.1 and pass the TOGAF 9.1 Foundation Exam.

Audience for the Study Guide

This Study Guide is intended for students preparing for *The Open Group Architecture Framework (TOGAF)* Foundation Level 1 certification exam. It should also prove to be a useful introduction for students new to TOGAF or architectural frameworks in general.

What Does This Study Guide Cover?

Chapter 1	An introduction to the TOGAF certification program and general advice on preparing for, and taking, the TOGAF 9.1 Foundation Exam.
Chapter 2	The basic concepts of Enterprise Architecture and architectural frameworks.
Chapter 3	The core concepts of TOGAF, the ADM Phases and their purpose. Architecture Governance and how an Enterprise Architecture Capability can be established and maintained in an organisation.
Chapter 4	TOGAF contains a considerable amount of terminology that you should be familiar with: this chapter covers the terms that need to be understood for the exam and for subsequent chapters.
Chapter 5	The role of architecture views, viewpoints and stakeholders - and the relationships between them.
Chapter 6	An overview of the TOGAF Architecture Development Method, the Enterprise Continuum, Architecture Repository and Foundation Architectures.
Chapter 7	The Preliminary, Architectural Vision, Business Architecture, Information Systems Architecture and Technology Architecture Phases of the ADM.

Chapter 8	The Opportunities & Solutions, Migration Planning, Implementation Governance, Architecture Change Management and Requirements Management Phases of the ADM.
Chapter 9	The purpose of deliverables produced and consumed throughout the TOGAF ADM cycle.
Chapter 10	The ADM Guidelines & Techniques used to assist the development of the architecture covering business scenarios, gap analysis, risk management and capability-based planning.
Chapter 11	The concept of the Architecture Continuum, Solutions Continuum and how these fit into the overall Enterprise Continuum. The role of the Architecture Repository and the architectural artefacts it holds. Tool standardisation and tool selection are also covered.
Chapter 12	The concept of building blocks in relationship to the ADM cycle and details on both Architecture Building Blocks and Solution Building Blocks. Architecture Patterns and their relationship to building blocks.
Chapter 13	The role of the TOGAF Technical Reference Model (TRM) as a foundation architecture upon which other, more specific, architectures can be based.
Chapter 14	The role of the TOGAF Integrated Information Infrastructure Reference Model (III-RM) and the term *Boundaryless Information Flow™*.
Chapter 15	Architecture Governance in detail and the Architecture Governance Framework as well as the role of the Architecture Board and Architecture Contracts.

Chapter Overviews

Each chapter of this Study Guide contains some combination of the following materials:

Overview	Gives an introduction to the chapter so you can quickly see what will be covered.
Topics Sections	Covers the background information and the in-depth coverage you need for each exam objective.
Review Topics	Provides page references so you can review answers for each of the specific exam objectives.
Key Terms	Highlights the key terms used in the chapter.
Review Questions	Obviously, it is not possible to provide the questions that will be asked in the exam; however, the questions contained in this Study Guide will give you experience of the types of questions you will face in the exam. The questions are provided to help you identify the exam topics you have not yet mastered.

Further Reading and Resources	Provides further recommended sources of information for the areas covered by the chapter.

How to Use This Study Guide

Study each chapter carefully: make sure that you fully understand the information and the terminology used. When you are confident you know the material, take the test at the end of the chapter. Ensure that you can score at least 90% before moving on to the next chapter.

In order that you have a broad understanding of the subject area than just the information provided by this Study Guide, it is recommended that you review material referenced in the *Further Reading and Resources* section provided at the end of each chapter.

To learn all of the material covered in this book, you'll need to apply yourself regularly and with discipline. Try to set aside at least one hour a day to study in a comfortable and quiet place free from other distractions. If you work through this Study Guide, you will be surprised at how quickly you will learn the material and be ready to take the TOGAF 9.1 Foundation Exam.

TOGAF

TOGAF is important for the following reasons…

- It allows organisations to standardise on TOGAF as a methodology for Enterprise Architecture.
- It allows organisations to avoid lock-in to proprietary methods of major consultancy companies which can be very expensive in the longer term.
- It is an important step in making Enterprise Architecture a well-recognised discipline that supports the needs of the business.
- It provides rigour in the procurement of tools and services for Enterprise Architecture.

Why Become TOGAF Certified?

The reasons for becoming TOGAF 9.1 certified are:

- To demonstrate your commitment to Enterprise Architecture as a discipline.
- To confirm that you possess a body of core knowledge about TOGAF 9.1 as an open, industry standard framework and method for Enterprise Architecture.
- To allow you to establish a career as an enterprise architect.

TOGAF Certification Levels

There are two levels defined for TOGAF 9.1 people certification: Level 1 TOGAF 9.1 Foundation, and Level 2 TOGAF 9.1 Certified. Studying for TOGAF 9.1 Foundation can be used as a learning objective towards achieving TOGAF 9.1 Certified, as all the learning outcomes are required in both certifications.

The objective of **TOGAF 9.1 Level 1 - Foundation** is to validate that the candidate has gained sufficient knowledge of the terminology and basic concepts of TOGAF 9.1 and understands the core principles of Enterprise Architecture and TOGAF.

The objective of **TOGAF 9.1 Level 2 - Certified** is to validate that the candidate, in addition to knowledge and comprehension, has the ability to analyse and apply TOGAF knowledge.

For individuals who are already TOGAF 8 certified, *The Open Group* provides a certification path direct to level 2 (TOGAF 9.1 certified) known as the *Bridging Option*.

TOGAF 9 Level 1 (Foundation) Exam

The 11 topic areas covered by the TOGAF 9.1 Level 1 (Foundation) exam are **not** equally weighted. You should, therefore, concentrate on the key areas of ADM phases, the Enterprise Continuum & Tools, ADM Guidelines & Techniques and Architecture Governance. The list below shows the topics and the associated number of questions for each topic:

- Basic concepts (3 questions)
- Core concepts (3 questions)
- Introduction to the ADM (3 questions)
- **The Enterprise Continuum & Tools (4 questions)**
- **ADM Phases (9 questions)**
- **ADM Guidelines & Techniques (6 questions)**
- **Architecture Governance (4 questions)**
- Architecture views, viewpoints and stakeholders (2 questions)
- Building blocks (2 questions)
- ADM deliverables (2 questions)
- TOGAF reference models (2 questions)

The Foundation Exam is comprised of 40 simple multiple choice questions to be completed within 60 minutes. To pass the exam the candidate must answer 55% of the questions correctly. This Foundation Exam has no prerequisites and is a closed book exam. Passing the Foundation 9.1 Exam is a prerequisite for taking the TOGAF 9.1 Level 2 (Certified) Exam.

TOGAF 9 Level 2 (Certified) Exam

The TOGAF Level 2 (Certified) exam draws its questions from the following topic areas:

- ADM phases - Project establishment
- ADM phases - Architecture definition
- ADM phases - Transition planning
- ADM phases - Governance
- Adapting the ADM
- Architecture Content framework
- TOGAF reference models
- Architecture Capability framework

The Certified Exam consists of eight scenario questions, with gradient scoring, that need to be completed within 90 minutes. To pass the exam, the candidate must answer 60% of the questions correctly. Passing the Foundation Exam is a prerequisite to taking the Certified Exam. The Certified Exam is open book.

Any candidate failing an exam must wait for at least one month before retaking the exam.

Taking the Exam

The Open Group exams are run by *Thompson Prometric* and details of the scheduling of exams can be found on their website: www.prometric.com

As part of the testing process, you will normally be required to bring two forms of identification with you - one with your signature and one with a photograph. Normally, the author takes his passport and driving licence for any *Thompson Prometric* exam, but you should always check with the testing centre as to which forms of identification are acceptable a few days before to avoid any problems on the day.

Exam Tips

Arrive at least 20 minutes early for the exam to allow time for traffic or difficulties in parking: you can then use this time to go over any last-minute revision for areas.

The Foundation Exam is closed book so you will not be allowed to take anything with you into the testing area, but you will be given a blank sheet of paper and a pen. You should use the time before the exam starts to note anything down for areas you have a hard time remembering. It is a good idea to write down all of the phases of the ADM and the corresponding descriptions of these phases.

The Foundation Exam is only 60 minutes long, so use your time wisely and work through the questions methodically. If there is a question you cannot answer, leave it and come back later. The Foundation Exam has 40 questions so plan accordingly to make sure you don't run out of time and check your watch in the exam after every 10 questions to keep on track (10 questions = 15 minutes).

In the words of Douglas Adams "Don't Panic!". Just work through the exam methodically and diligently. There is enough time if you are prepared and the majority of questions straight forward and not designed to trick you.

Don't make assumptions or jump to conclusions. Make sure you read the questions thoroughly and all of the possible answers. Re-read the question to make sure you know what is being asked before answering.

For questions that you are not confident, mark them and come back to them later if you have time. Working through other questions will sometimes jog your memory and you will find an earlier question easier to answer later.

Use a process of elimination to remove obviously incorrect answers. This approach allows you to concentrate on the probable answers.

Don't leave any questions unanswered at the end of the test. There are no points deducted for a wrong answer, so answer all questions. Make an educated guess and you may just pick the correct answer.

Exam Preparation Tasks

Review All the Key Topics

Review the most important topics from this chapter. Table 1 below lists these key topics and where each is discussed.

Description	Page
Explain the TOGAF certification program.	3
Distinguish between the levels for TOGAF certification.	3

Table 1: *TOGAF certification exam syllabus checklist*

Understand the Definition of Key Terms

Define the following key terms from this chapter and check your answers:

- Foundation
- Certified
- Bridging Option

Complete the Review Questions

Check your understanding of this chapter by answering the following example exam-style questions:

Q1. How many certification levels are there in TOGAF 9?
(Select 1)

A. 1
B. 2
C. 3
D. 4

Q2. For individuals already TOGAF 8 certified, *The Open Group* provides a certification path direct to Level 2 (TOGAF 9 Certified) known as the _____ Option. (Select 1)

A. Practitioners
B. Transition
C. Bridging
D. Upgrade
E. Conversion

Q3. Which of the following are listed by *The Open Group* as important reasons for TOGAF certification? (Select 4)

A. It allows organisations to standardise on TOGAF as the methodology for Enterprise Architecture.
B. It provides rigour in the procurement of tools and services for Enterprise Architecture.
C. It is the only certification program that demonstrates the candidate's ability to produce an Enterprise Architecture.
D. It allows organisations to avoid lock-in to proprietary methods of major consultancy companies.
E. It is an important step in making Enterprise Architecture a well-recognised discipline supporting the needs of the business.
F. Individuals are entitled to become members of the *Association of Open Group Enterprise Architects* (AOGEA).

Q4. Which of these is a prerequisite for taking the TOGAF 9.1 Certified Exam?
(Select 1)

A. Having passed the TOGAF 8 level 1 - Foundation Exam.
B. Keeping an architectural journal for 2 years.
C. Having passed the TOGAF 9 level 1 - Foundation Exam.
D. Having passed the TOGAF 9 - Bridging Option Exam.
E. Membership of the *Association of Open Group Enterprise Architects* (AOGEA).
F. None of the above.

Q5. Which of the following are true statements about the TOGAF 9 Level 1 - Foundation Exam? (Select 3)

A. The exam consists entirely of multiple-choice questions.
B. It is a closed-book exam.
C. It has only 40 questions.
D. It contains eight scenario questions and 40 short questions.
E. It contains 50 questions that must be completed in one hour.
F. All 11 topic areas are equally weighted and contain the same number of questions.
G. The TOGAF Reference Models are not part of the Foundation Exam but are covered in the Certified Level Exam.

Review Your Answers

Review your answers by referring to the answers that can be found on page 180.

Further Reading and Resources

The following list provides further recommended sources of information for the areas covered by this chapter:

- The TOGAF website: www.togaf.info
- *The Open Group* TOGAF 9 Certification website: www.opengroup.org/togaf9/cert
- TOGAF 9 Foundation Datasheet, published by *The Open Group* - www.opengroup.org/togaf9/cert/docs/togaf9_foundation.pdf

This chapter covers the following exam subjects:

- The purpose and business benefits of having an Enterprise Architecture.
- What an Architecture Framework is.
- What TOGAF is, and what architecture is in the context of TOGAF.
- Why TOGAF is a suitable framework for an Enterprise Architecture.
- The different types of architecture that TOGAF deals with.
- The structure of TOGAF and a brief explanation of each of the parts.

CHAPTER 2

Basic Concepts

The purpose of this chapter of the Study Guide is to introduce the basic concepts of TOGAF, Enterprise Architecture, Architecture Frameworks and the structure of TOGAF.

What is an Enterprise?

An enterprise is any collection of organisations that has a common set of goals, from a single department to a whole corporation encompassing all of its information and technology services, processes and infrastructure. In all cases, the Enterprise Architecture crosses multiple systems and multiple functional groups within the enterprise.

What is Architecture?

The ISO/IEC 42010:2007 terminology defines *Architecture* as:

> *The fundamental organisation of a system, embodied in its components, their relationships to each other and the environment and the principles governing its design and evolution.*

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

1. A formal description of a system, or a detailed plan of the system at a component level, to guide its implementation.
2. The structure of components, their inter-relationships, the principles and guidelines governing their design and evolution over time.

What is an Architecture Framework?

An Architecture Framework describes a methodology for designing a target state for the enterprise in terms of a set of building blocks, and defines how these building blocks fit together.

The Architecture Framework should contain a set of tools, provide a common vocabulary, and include a list of recommended standards and compliant products that can be used to implement the building blocks. TOGAF is just one example of an Architecture Framework.

What is TOGAF?

The Open Group Architecture Framework (TOGAF) is an *Architecture Framework* and consists of a methodology and a set of supporting tools in the acceptance, production, use and maintenance of an Enterprise Architecture. TOGAF is based on an iterative process model supported by best practices and a reusable set of existing architecture assets.

The Purpose of an Enterprise Architecture

The purpose of an Enterprise Architecture is to optimise the existing processes into an integrated environment across the enterprise so that they are responsive to change and support the delivery of the business strategy.

An Enterprise Architecture provides a strategic context for the evolution of the IT system in response to the constantly changing needs of the business environment.

The Business Benefits of Having an Enterprise Architecture

The business benefits of having an Enterprise Architecture are:

Efficient IT operations:

- Reduced software development, support and maintenance costs.
- Improved portability of applications.
- Improved interoperability and easier management.
- Improved ability to address critical enterprise-wide issues.
- Ability to upgrade and exchange system components more easily.

Better return on existing investment with a reduced risk for future investment:

- Reduced IT infrastructure complexity.
- Maximum return on the existing IT infrastructure investment.
- The flexibility to build, buy, or outsource IT solutions.
- Reduced risk in new investment and reduced costs of IT ownership.

Faster, simpler and cheaper procurement:

- Buying decisions are simpler, because the information governing procurement is in a coherent plan.
- The procurement process is faster and more flexible, without sacrificing architectural coherence.
- Improve the ability to procure heterogeneous, multi-vendor, open systems to allow the integration of 'best-of-breed' applications.

TOGAF as a Framework for an Enterprise Architecture

TOGAF is a framework for Enterprise Architecture because it:

- Provides a platform to enable users to build open systems-based solutions to address their business issues and needs.
- Allows architectures to be developed that are consistent; reflect the needs of stakeholders; employ best practice; and give due consideration both to current requirements and the likely future needs of the business.
- Has been developed through the collaborative efforts of the world's leading IT customers and vendors and represents best practice in architecture development.
- Plays an important role in helping to improve comprehension and reduce risk in the architecture development process.

TOGAF and Different Types of Architectures

TOGAF supports the following four architecture domains as part of the overall *Enterprise Architecture*:

1. **Business Architecture** defines the business strategy, governance, organisation and key business processes.

2. **Data Architecture** describes the structure of an organisation's logical, physical data assets and data management resources.
3. **Application Architecture** provides a template for the individual application systems to be deployed, and for their interactions and relationships to the core business processes of the organisation.
4. **Technology Architecture** describes the logical software and hardware capabilities required to support the deployment of business, data and application services. The Technology Architecture covers the IT infrastructure, middle-ware, networks, communications, processing and standards.

TOGAF's Structure

TOGAF reflects the structure and content of an architecture capability within an enterprise, which is shown in figure 1 below:

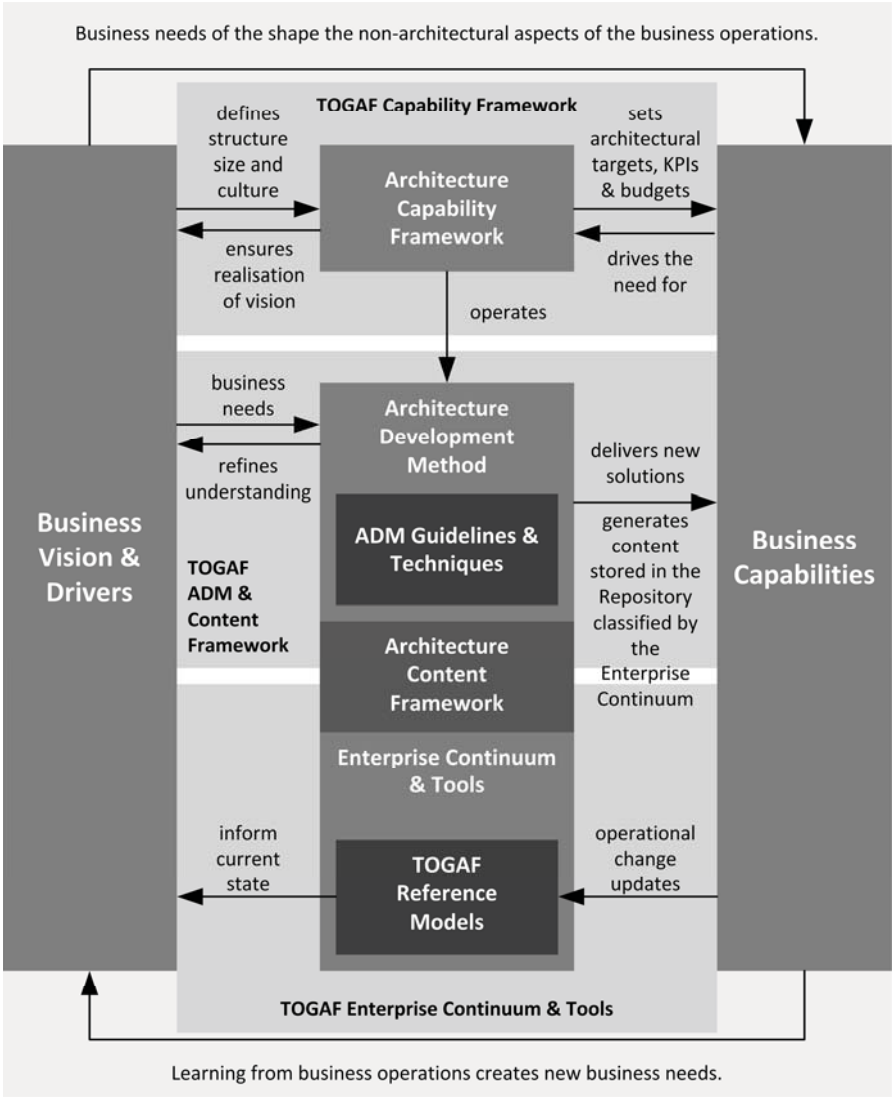


Figure 1: *TOGAF overview*

The TOGAF document consists of seven parts:

PART I - Introduction

Provides an overview of the TOGAF approach to developing an Enterprise Architecture. It contains the definitions of terms used throughout TOGAF and details changes from the previous version of TOGAF.

PART II - Architecture Development Method (ADM)

Describes the step-by-step approach to developing an Enterprise Architecture.

PART III - ADM Guidelines & Techniques

Provides a collection of Guidelines & Techniques for applying during the TOGAF ADM phases.

PART IV - Architecture Content Framework

Provides a model and overview of typical architectural work products, including deliverables, artefacts and reusable Architecture Building Blocks.

PART V - Enterprise Continuum & Tools

Discusses tools and taxonomies that can be used to categorise and store the outputs of architecture activity within an enterprise.

PART VI - TOGAF Reference Models

Provides a selection of architectural reference models, including the TOGAF Foundation Architecture and the Integrated Information Infrastructure Reference Model (III-RM).

PART VII - Architecture Capability Framework

Details on the processes, skills, roles and responsibilities required to establish and operate an architecture practice within an organisation.

Exam Preparation Tasks

Review All the Key Topics

The purpose of this chapter is to introduce you to the basic concepts of Enterprise Architecture and TOGAF. Please review the most important topics from this chapter listed in table 2 below:

Exam Syllabus checklist	Page
Describe what an Enterprise is.	9
Explain the purpose of an Enterprise Architecture.	10
List the business benefits of having an Enterprise Architecture.	10
Define what an Architecture Framework is.	9
Briefly explain what TOGAF is.	9
Explain what ‘architecture’ means in the context of TOGAF.	10
List the different types of architecture that TOGAF deals with.	11
Explain why TOGAF is suitable as a framework for Enterprise Architecture.	10
Describe the structure of TOGAF and briefly explain the contents of each of the parts.	11

Table 2: *Basic concepts exam syllabus checklist*

Understand the Definition of Key Terms

Ensure you can define all the following key terms from this chapter:

- Application Architecture
- Architecture Framework
- Business Architecture
- Data Architecture
- Enterprise
- Enterprise Architecture
- Technology Architecture
- TOGAF

Complete the Review Questions

Check your understanding of this chapter by answering the following example exam-style questions:

Q1. Which of the following <u>best</u> defines an enterprise from a TOGAF perspective? (Select 1)

A. A collection of organisations.
B. A formal description of a system.
C. A collection of organisations with a common set of goals.
D. A group of individuals who share a common goal.

Q2. Which statement <u>best</u> defines the purpose of an Enterprise Architecture? (Select 1)

A. To provide an application platform that enables users to build open systems-based solutions to address their business issues and needs.
B. To optimise the existing processes into an integrated environment across the enterprise so that they are responsive to change and supportive of the delivery of the business strategy.
C. To define a Data Architecture describing the structure of an organisation's logical and physical data assets, and data management resources.
D. To describe a methodology for designing a transition state for the enterprise in terms of a set of building blocks.

Q3. In TOGAF, which of the following is <u>not</u> listed as business benefit of having an Enterprise Architecture? (Select 1)

A. Better return on existing investment.
B. Increased customer satisfaction.
C. Reduced risk for future investment.
D. The ability to procure heterogeneous, multi-vendor open systems.

Q4. Which of the following <u>best</u> defines an Architecture Framework? (Select 1)

A. A formal description of a system, or a detailed plan of the system at the component level, to guide its implementation.
B. A methodology for designing a target state for the enterprise in terms of a set of building blocks and defines how the building blocks fit together.
C. A step-by-step approach to developing an Enterprise Architecture.
D. An iterative process model supported by best practices and a reusable set of templates.

Q5. Which of the following best defines TOGAF?
(Select 1)

A. TOGAF is an Architecture Framework, consisting of a methodology and set of supporting tools for assisting in the acceptance, production, use and maintenance of an Enterprise Architecture.
B. TOGAF is a model and overview of typical architectural work products, including deliverables, artefacts and reusable Architecture Building Blocks.
C. TOGAF is an Architectural Content Framework.
D. TOGAF is a collection of tools and taxonomies that can be used to categorise and store the outputs of architecture activity within an enterprise.

Q6. In TOGAF, architecture, depending upon the context, is which of the following?
(Select 2)

A. A formal description of a system, or a detailed plan of the system at component level, to guide its implementation.
B. A methodology and set of supporting tools for assisting in the acceptance, production, use and maintenance of an Enterprise Architecture.
C. An Integrated Information Infrastructure Reference Model (III-RM).
D. The structure of components, their inter-relationships and the principles and guidelines governing their design and evolution over time.

Q7. TOGAF supports four Architecture Domains as part of the overall Enterprise Architecture: which of the following are part of this group of four? (Select 2)

A. Technology Architecture
B. Business Process Architecture
C. Governance Architecture
D. Business Architecture

Q8. Which of the following make TOGAF a suitable framework for an Enterprise Architecture?
(Select 2)

A. TOGAF has been developed through the collaborative efforts of the world's leading IT customers and vendors and represents best practice in architecture development.
B. TOGAF provides ready-made solution architectures that are consistent, reflect the needs of stakeholders, employ best practice and give due consideration both to current requirements and to the likely future needs of the business.
C. TOGAF plays an important role in helping to improve comprehension and reduce risk in the architecture development process.
D. TOGAF can be used straight out of the box and does not need to be extended or established before it can be used in practice.

Q9. Which of the following are major components of the TOGAF document?
(Select 2)

A. Architecture Content Framework.
B. Continual service improvement.
C. ADM Guidelines & Techniques.
D. Architectural Execution Method.

Q10. Which of the following best describes the Architecture Development Method (ADM)? (Select 1)

A. The TOGAF ADM provides a model and overview of typical architectural work products, including deliverables, artefacts and reusable Architecture Building Blocks.

B. The TOGAF ADM discusses tools and taxonomies that can be used to categorise and store the outputs of architecture activity within an enterprise.

C. The TOGAF ADM is a selection of architectural reference models and includes the TOGAF Foundation Architecture and the Integrated Information Infrastructure Reference Model (III-RM).

D. The TOGAF ADM describes the step-by-step approach to developing an Enterprise Architecture.

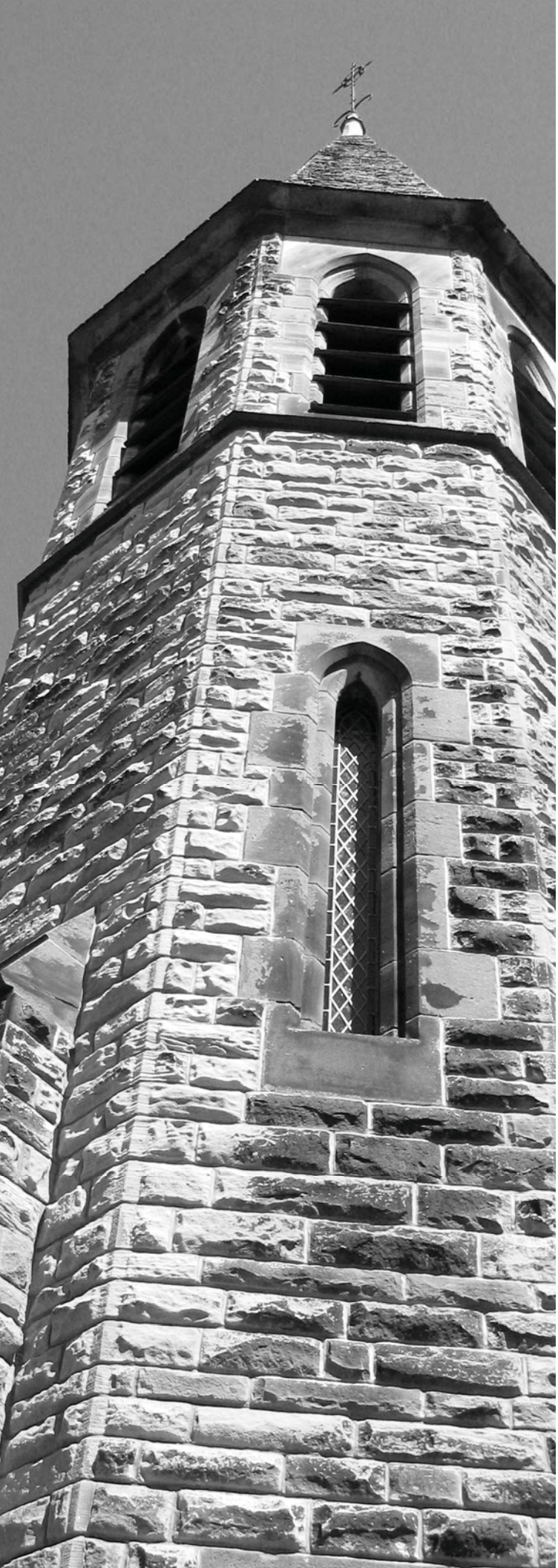
Review Your Answers

Review your answers by referring to the answers that can be found on page 180.

Further Reading and Resources

The following list provides further recommended sources of information for the areas covered by this chapter:

- TOGAF 9 Part 1 - *Introduction*, Chapter 1 (Introduction)
- TOGAF 9 Part 1 - *Introduction*, Chapter 2 (Core Concepts)



This chapter covers the following exam subjects:

- The ADM Phases and the purpose of each phase.
- The deliverables, artefacts and building blocks contained in the Architectural Content Framework.
- The Enterprise Continuum.
- The Architecture Repository.
- How to establish and maintain an Enterprise Architecture Capability.
- How to establish an architecture capability as an operational entity.
- How to use TOGAF with other frameworks.
- The TOGAF document categorisation model.

CHAPTER 3

Core Concepts

The purpose of this chapter of the Study Guide is to ensure you understand and can explain the core concepts of TOGAF.

The ADM Phase Names and the Purpose of Each Phase

Figure 2 below shows the phases of the TOGAF ADM process:

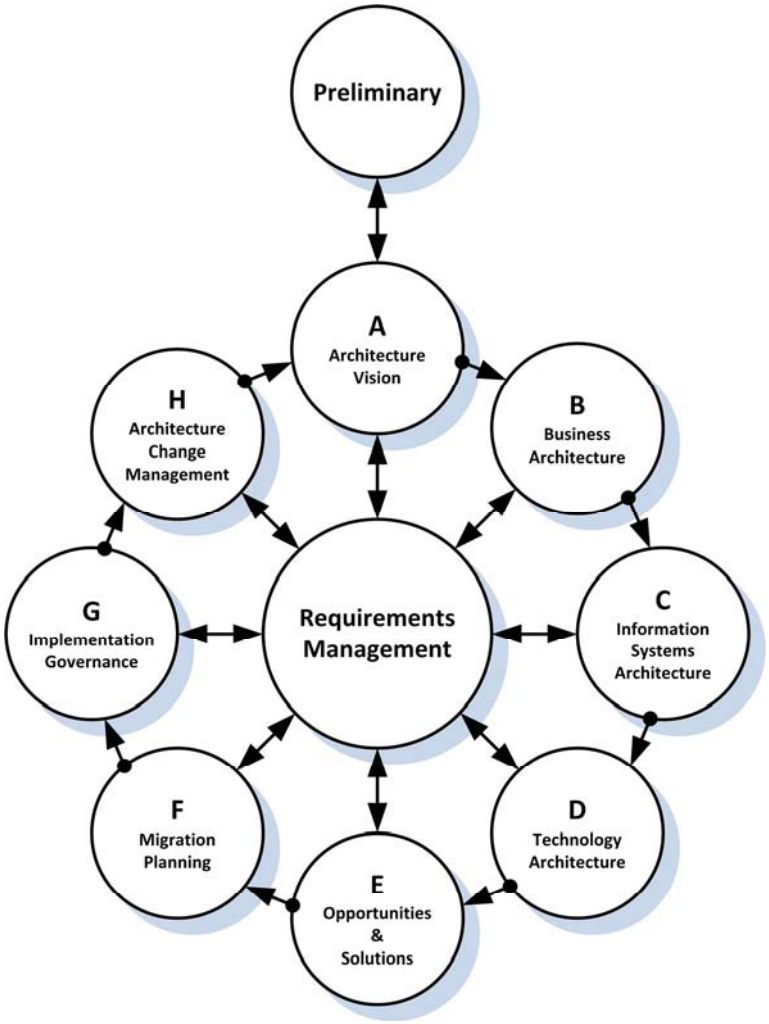


Figure 2: *TOGAF ADM overview*

The ADM phases are:

Preliminary Phase

Describes the preparation and initiation activities required to meet the business need for a new Enterprise Architecture. This includes the definition of an Organisation-Specific Architecture Framework and the definition of principles to be followed during the development of the architecture. This phase may include the customisation of TOGAF.

Phase A - Architecture Vision

Initial phase of the Architecture Development Method cycle includes defining the scope, identifying key stakeholders, obtaining approval and defining a high-level aspirational view of the Target Architecture.

Phase B - Business Architecture

Development of the Business Architecture consisting of a business strategy, governance, organisation, key business processes and interactions between them to support the agreed Architecture Vision defined in Phase A.

Phase C - Information Systems Architecture

Development of the Data Architecture (the enterprise's logical and physical data assets and data management resources) and the Application Architecture (the major logical groupings of applications that manage data objects to process data and support the business).

Phase D - Technology Architecture

Development of the logical software and hardware capabilities required to support the deployment of business, data and applications defined in the Information Systems Architecture Phase. This phase defines the IT infrastructure, middleware, networks and communications.

Phase E - Opportunities & Solutions

Initial planning of implementation projects for delivering the Target Architecture defined in previous phases.

Phase F - Migration Planning

Development of Transition Architectures with supporting implementation and migration plans in priority order. Activities include assessing the dependencies, costs and benefits of the various migration projects.

Phase G - Implementation Governance

Perform appropriate governance functions through architecture contracts while the system is being implemented and deployed to ensure compliance with the defined architecture(s).

Phase H - Architecture Change Management

Establish a change management process for the new architecture by continual monitoring of such things as new developments in technology and changes in the business environment to ensure that changes to the architecture are managed.

Requirements Management

Defines and manages a process whereby requirements for the Enterprise Architecture are identified, stored and controlled for use throughout the ADM Phases.

The Architecture Content Framework

During the production of an architecture that follows the ADM process, numerous outputs are produced such as architectural requirements, process flows and project plans. TOGAF defines a structure called the TOGAF Architecture Content Framework into which these work products will be placed. The TOGAF Architecture Content Framework uses the following three categories (deliverable, artefact or building block) to define architectural work products as can be seen in figure 3 below:

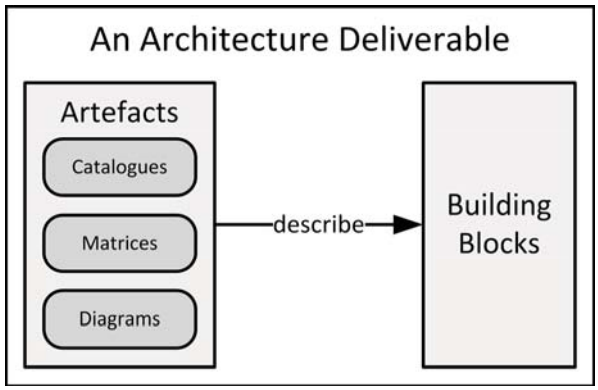


Figure 3: *Relationship between deliverables, artefacts and building blocks*

Definitions of the three architectural work products are:

1. A Deliverable

A deliverable is a contractual work product that will be reviewed, agreed on, and used for sign-off by stakeholders. Deliverables represent the documentation outputs of projects retained in the Architecture Repository for future reference as a model standard or point-in-time snapshot of the architectural landscape.

2. An Artefact

An artefact describes a specific architecture from a specific viewpoint. Examples of artefacts include use-cases, network diagrams and requirements lists. A deliverable may be made up of many artefacts. All artefacts should be stored in the Architecture Repository. Artefacts help to describe building blocks.

3. A Building Block

Building blocks are packages of functionality defined to meet business needs. Building blocks are potentially reusable and can be combined with other building blocks to deliver architectures and solutions. Building blocks can be defined at various levels of detail and can relate to both ‘architectures’ (Architecture Building Blocks) and ‘solutions’ (Solution Building Blocks).

The Enterprise Continuum

The Enterprise Continuum is a view of the Architecture Repository used for classifying architecture and solution artefacts as they evolve from generic (left-hand side of figure 4 on page 20) Foundation Architectures to Organisation-Specific Architectures (right-hand side of figure 4 on page 20).

The Enterprise Continuum allows generic artefacts to be leveraged and specialised in order to support the requirements of an individual organisation and comprises two complementary components - the Architecture Continuum and the Solutions Continuum.

Figure 4 on page 20 shows a pictorial view of the Enterprise Continuum:

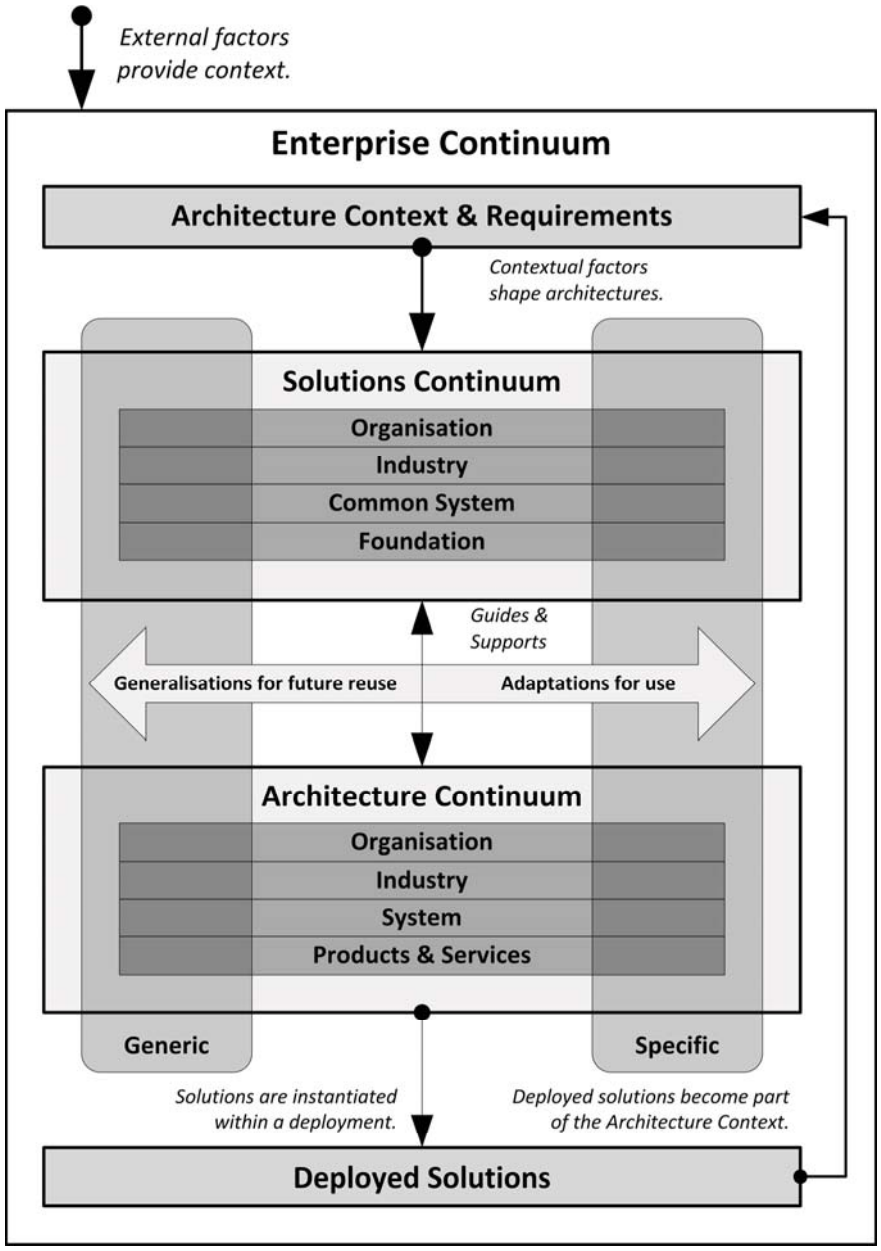


Figure 4: *The Enterprise Continuum*

The Architecture Repository

The Architecture Repository supports the Enterprise Continuum and stores different classes of architectural output at different levels of abstraction. An overview of the TOGAF Architecture Repository is shown in figure 5 on page 21.

Answers to Questions

Chapter 1 - Introduction

Q1. B
Q2. C
Q3. A, B, D & E
Q4. C
Q5. A, B & C

Chapter 2 - Basic Concepts

Q1. C
Q2. B
Q3. B
Q4. B
Q5. A
Q6. A & D
Q7. A & D
Q8. A & C
Q9. A & C
Q10. D

Chapter 3 - Core Concepts

Q1. D
Q2. C
Q3. C
Q4. B
Q5. B
Q6. B & D
Q7. B
Q8. A & D
Q9. D
Q10. A & C
Q11. C & D
Q12. A & C
Q13. B
Q14. C & D
Q15. D
Q16. A & C

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TOGAF 9 Foundation Exam Study Guide

This independent guide to the TOGAF 9 Level 1 Foundation examination concentrates solely on the syllabus subjects for the exam. It cuts the TOGAF documentation down to size allowing you to concentrate on the specific areas you need to study.

The guide doesn't skimp: it contains over 200 questions on the full range of topics in the syllabus to ensure that you will have confidence in answering the exam as you work through the guide.

If you are currently struggling to wade through the 750 pages of TOGAF documentation, or just want to understand the TOGAF 9 Foundation subjects quickly, then the TOGAF 9 Foundation Exam Study Guide is what you need to help you.

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