

TOGAF® Series

# TOGAF® Business Architecture Level 1 Study Guide

Preparation for the TOGAF Business Architecture Part 1 Examination

1st Edition



Andrew Josey & Steve Else

Van Haren  
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# **TOGAF®**

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# **Architecture Level 1**

## **Study Guide**

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Prepared by Andrew Josey, The Open Group and  
Steve Else, EA Principals



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# Contents

<b>Chapter 1 Introduction .....</b>	<b>1</b>
1.1 Key Learning Points.....	1
1.2 The Open Group Certification for People: Credentials Program .....	1
1.2.1 The TOGAF Business Architecture Level 1 Credential.....	2
1.2.2 The TOGAF Business Architecture Level 1 Syllabus.....	3
1.2.3 Preparing for the Examination .....	4
1.3 Summary .....	4
1.4 Test Yourself Questions .....	5
1.5 Recommended Reading .....	6
<b>Chapter 2 Basic Concepts .....</b>	<b>7</b>
2.1 Key Learning Points.....	7
2.2 What is Enterprise Architecture?.....	7
2.3 Why do I Need Enterprise Architecture?.....	8
2.4 What is the TOGAF Standard? .....	9
2.4.1 Structure of the TOGAF Documentation.....	10
2.5 An Introduction to the TOGAF ADM.....	13
2.6 Using the TOGAF Framework with Other Frameworks.....	15
2.7 Summary .....	16
2.8 Test Yourself Questions .....	16
2.9 Recommended Reading .....	17
<b>Chapter 3 Key Terminology.....</b>	<b>19</b>
3.1 Key Learning Points.....	19
3.2 Key Terms.....	19
3.3 Summary .....	23
3.4 Exercises .....	23
3.5 Test Yourself Questions .....	24
3.6 Recommended Reading .....	25
<b>Chapter 4 Business Modeling.....</b>	<b>27</b>
4.1 Key Learning Points.....	27
4.2 The Definition of Business Model.....	27
4.3 The Impact and Benefits of Business Models .....	28

4.4	Different Example Representations of Business Models.....	29
4.4.1	The Three-Element Framework.....	30
4.4.2	The Four-Box Framework.....	31
4.4.3	The Business Model Cube.....	31
4.4.4	The Business Model Canvas.....	32
4.5	Business Models and Business Architecture.....	33
4.6	Using Business Models with the TOGAF ADM.....	34
4.7	Adopting a Structured Approach for Business Model Innovation.....	37
4.8	Summary.....	38
4.9	Exercises.....	38
4.10	Test Yourself Questions.....	40
4.11	Recommended Reading.....	41
<b>Chapter 5 Example: Using the Business Model Canvas.....</b>		<b>43</b>
5.1	Key Learning Points.....	43
5.2	What is the Business Model Canvas?.....	43
5.3	Example Use-Case: Retail Business.....	46
5.3.1	Current State.....	46
5.3.2	Future State.....	47
5.4	Summary.....	49
5.5	Exercises.....	49
5.6	Test Yourself Questions.....	51
5.7	Recommended Reading.....	52
<b>Chapter 6 Business Capabilities.....</b>		<b>53</b>
6.1	Key Learning Points.....	53
6.2	What is a Business Capability.....	53
6.3	Defining a Business Capability.....	54
6.3.1	Naming the Business Capability.....	56
6.3.2	Describing the Business Capability.....	56
6.3.3	The Components of a Business Capability.....	56
6.4	What is a Business Capability Model?.....	57
6.5	Capability Modeling.....	57
6.5.1	Organizational Structure.....	59
6.5.2	Business Model.....	60
6.5.3	Strategic Plans, Business Plans, and Financial Plans.....	61

6.6	Structuring the Business Capability Model .....	61
6.6.1	Level One Capability Stratification .....	61
6.6.2	Leveling.....	62
6.7	Mapping Capabilities to Other Business Perspectives .....	63
6.7.1	Heat Mapping.....	64
6.7.2	Cross-Mapping .....	65
6.8	Summary .....	68
6.9	Exercises .....	68
6.10	Test Yourself Questions .....	71
6.11	Recommended Reading .....	72
<b>Chapter 7 Value Streams .....</b>		<b>73</b>
7.1	Key Learning Points.....	73
7.2	What is Value? .....	73
7.3	Value Analysis.....	74
7.3.1	Value Chain .....	75
7.3.2	Value Network .....	76
7.3.3	Lean Value Stream.....	76
7.4	What is a Value Stream? .....	77
7.5	The Benefits of Value Streams and Value Stream Mapping .....	78
7.6	Relationship of Value Streams to Other Business Architecture Concepts.....	79
7.7	Defining a Value Stream.....	81
7.8	Decomposing a Value Stream.....	82
7.9	Mapping Capabilities to Value Stream Stages .....	82
7.10	Summary .....	83
7.11	Exercises .....	83
7.12	Test Yourself Questions .....	85
7.13	Recommended Reading .....	86
<b>Chapter 8 Applying Value Streams .....</b>		<b>87</b>
8.1	Key Learning Points.....	87
8.2	Creating Value Streams .....	87
8.2.1	Guiding Principles.....	87
8.3	Example 1 – Decomposing a Value Stream .....	88
8.4	Example 2 – Mapping Value Streams to Business Capabilities .....	90

8.5	Example 3 – Heat Mapping.....	93
8.6	Example 4 – Organization Mapping.....	95
8.7	Summary .....	96
8.8	Exercises .....	96
8.9	Test Yourself Questions .....	99
8.10	Recommended Reading .....	100
<b>Chapter 9 Information Mapping.....</b>		<b>101</b>
9.1	Key Learning Points.....	101
9.2	The Role of Information and Information Concepts .....	101
9.3	What is Information Mapping? .....	102
9.4	What is an Information Map? .....	102
9.5	The Benefits of Developing an Information Map .....	103
9.6	The Relationship to other Business Architecture Concepts .....	104
9.6.1	Business Capabilities.....	104
9.6.2	Value Streams.....	106
9.6.3	Organization Maps.....	106
9.7	The Relationship with Data Models.....	106
9.8	How to use Information Maps with the TOGAF ADM .....	107
9.9	Putting Information Maps into Practice .....	108
9.10	Summary .....	109
9.11	Exercises .....	109
9.12	Test Yourself Questions .....	110
9.13	Recommended Reading .....	111
<b>Chapter 10 TOGAF Business Scenarios .....</b>		<b>113</b>
10.1	Key Learning Points.....	113
10.2	What is a TOGAF Business Scenario? .....	113
10.3	The Benefits of Developing a Business Scenario .....	114
10.4	The Use of Business Scenarios in the TOGAF ADM .....	115
10.5	How to Develop a Business Scenario.....	115
10.5.1	Steps .....	117
10.5.2	Business Scenario Phases.....	119
10.5.3	Premise Formulation Phase .....	120
10.5.4	Initial Verification Phase .....	121
10.5.5	Refinement Phase .....	121
10.6	Contents of a Business Scenario.....	122

10.7	Summary .....	122
10.8	Exercises .....	123
10.9	Test Yourself Questions .....	124
10.10	Recommended Reading .....	125
<b>Chapter 11</b>	<b>Developing a Business Architecture with the TOGAF ADM – Phase A.....</b>	<b>127</b>
11.1	Key Learning Points.....	127
11.2	Objectives.....	128
11.2.1	Approach .....	128
11.3	Inputs.....	130
11.3.1	Business Principles, Business Goals, and Business Drivers .....	130
11.4	Steps.....	130
11.4.1	Establish the Architecture Project.....	131
11.4.2	Identify Stakeholders, Concerns, and Business Requirements .....	131
11.4.3	Confirm and Elaborate Business Goals, Business Drivers, and Constraints .....	133
11.4.4	Evaluate Capabilities .....	133
11.4.5	Assess Readiness for Business Transformation .....	134
11.4.6	Define Scope.....	135
11.4.7	Confirm and Elaborate Architecture Principles, including Business Principles .....	136
11.4.8	Develop Architecture Vision.....	136
11.4.9	Define the Target Architecture Value Propositions and KPIs.....	136
11.4.10	Identify the Business Transformation Risks and Mitigation Activities.....	137
11.4.11	Develop Statement of Architecture Work; Secure Approval .....	137
11.5	Outputs.....	138
11.5.1	Architecture Vision .....	138
11.5.2	Baseline and Target Business Architectures.....	139
11.5.3	Business Model Diagram.....	139
11.5.4	Business Capability Map.....	140
11.5.5	Value Stream Map .....	140

11.6	Summary .....	140
11.7	Exercises .....	140
11.8	Test Yourself Questions .....	141
11.9	Recommended Reading .....	142

## **Chapter 12 Developing a Business Architecture with the TOGAF ADM – Phase B..... 143**

12.1	Key Learning Points.....	143
12.2	Objectives.....	144
12.2.1	Approach .....	144
12.3	Inputs.....	147
12.3.1	Business Principles .....	147
12.4	Steps .....	148
12.4.1	Select Reference Models, Viewpoints, and Tools .....	149
12.4.2	Develop Baseline Business Architecture Description.....	152
12.4.3	Develop Target Business Architecture Description .....	152
12.4.4	Perform Gap Analysis .....	153
12.4.5	Define Candidate Roadmap Components .....	153
12.4.6	Resolve Impacts across the Architecture Landscape .....	153
12.4.7	Conduct Formal Stakeholder Review .....	153
12.4.8	Finalize the Business Architecture .....	153
12.4.9	Create the Architecture Definition Document.....	154
12.5	Outputs.....	155
12.5.1	Architecture Definition Document.....	155
12.5.2	Architecture Requirements Specification.....	157
12.5.3	Architecture Roadmap.....	158
12.6	Summary .....	158
12.7	Exercises .....	158
12.8	Test Yourself Questions .....	159
12.9	Recommended Reading.....	160

## **Appendix A Answers to Test Yourself Questions and Exercises .....161**

A.1	Answers to the Test Yourself Questions .....	161
A.2	Answers to Exercises.....	167

<b>Appendix B</b>	<b>Test Yourself Examination Paper .....</b>	<b>189</b>
B.1	Examination Paper.....	189
B.2	Test Yourself Examination Paper .....	189
B.3	Bonus Questions .....	199
<b>Appendix C</b>	<b>Test Yourself Examination Paper Answers .....</b>	<b>201</b>
C.1	Scoring the Examination.....	201
C.2	Answers to Test Yourself Examination Paper.....	201
<b>Appendix D</b>	<b>TOGAF Business Scenario Template .....</b>	<b>207</b>
<b>Appendix E</b>	<b>Business Architecture and the ArchiMate Modeling Language .....</b>	<b>209</b>
E.1	Key ArchiMate Elements Relevant to Business Architecture.....	209
E.2	Examples .....	212
<b>Appendix F</b>	<b>TOGAF Business Architecture Level 1 Syllabus .....</b>	<b>219</b>
F.1	Business Modeling .....	219
F.2	Business Capabilities.....	220
F.3	Value Streams.....	222
F.4	TOGAF Business Scenarios.....	223
F.5	Information Mapping .....	224
F.6	Developing a Business Architecture with the TOGAF ADM .....	225
<b>Index</b> .....		<b>229</b>



# Preface

## This Document

This document is the Study Guide for the TOGAF® Business Architecture Level 1 qualification. This first edition is aligned with the TOGAF Standard, Version 9.2.

It gives an overview of every learning objective included in the syllabus and in-depth coverage on preparing and taking the TOGAF Business Architecture Part 1 Examination. It is specifically designed to help individuals prepare for the examination.

The audience for this Study Guide is:

- Individuals who require knowledge and understanding of TOGAF Business Architecture techniques
- Professionals who are working in roles associated with an architecture project such as those responsible for planning, execution, development, delivery, and operation
- Architects who are looking to achieve the TOGAF Business Architecture Level 1 credential
- Architects using the TOGAF Standard, Version 9.2 who want to specialize in Business Architecture

A prior knowledge of Enterprise Architecture is advantageous but not required. While reading this Study Guide, the reader should also refer to the TOGAF Standard, Version 9.2 and the referenced TOGAF Series Guides.<sup>1</sup>

The Study Guide is structured as shown below:

- Chapter 1 (Introduction) provides a brief introduction to TOGAF certification and the TOGAF Business Architecture Level 1 credential, including the TOGAF Business Architecture Part 1 Examination
- Chapter 2 (Basic Concepts) introduces the basic concepts of Enterprise Architecture and the TOGAF standard; this provides a high-level view of the TOGAF framework, Enterprise Architecture, architecture

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<sup>1</sup> The TOGAF Standard, Version 9.2 (C182), available at [www.opengroup.org/library/c182](http://www.opengroup.org/library/c182).

frameworks, the contents of the TOGAF standard, and the TOGAF Library

- Chapter 3 (Key Terminology) introduces the key terminology required for the TOGAF Business Architecture credential
- Chapter 4 (Business Modeling) describes the topic of business modeling, how it relates to the TOGAF standard, the impact and benefits of business models, and examples of different representations of business models
- Chapter 5 (Example: Using the Business Model Canvas) describes the typical contents of a business model, using the Business Model Canvas as an example
- Chapter 6 (Business Capabilities) describes business capabilities and how they can be modeled
- Chapter 7 (Value Streams) describes value streams and value stream mapping; the benefits, the different approaches to value stream analysis, and the relationship to other Business Architecture concepts
- Chapter 8 (Applying Value Streams) provides guidance on applying value streams, including three examples
- Chapter 9 (Information Mapping) describes what an Information Map is, and how to apply Information Mapping when developing a Business Architecture
- Chapter 10 (TOGAF Business Scenarios) describes the TOGAF business scenario method, and how to apply it
- Chapter 11 (Developing a Business Architecture with the TOGAF ADM – Phase A) describes how a Business Architecture is developed with the TOGAF Architecture Development Method (ADM) in Phase A
- Chapter 12 (Developing a Business Architecture with the TOGAF ADM – Phase B) describes how a Business Architecture is developed with the TOGAF ADM in Phase B
- Appendix A (Answers to Test Yourself Questions and Exercises) provides the answers to the Test Yourself sections provided at the end of each chapter
- Appendix B (Test Yourself Examination Paper) provides a Test Yourself examination to allow you to assess your knowledge of the TOGAF Business Architecture Syllabus and readiness to take the TOGAF Business Architecture Examination
- Appendix C (Test Yourself Examination Paper Answers) provides the answers to the examination in Appendix B

- Appendix D (TOGAF Business Scenario Template) provides a sample template for the table of contents for a TOGAF business scenario
- Appendix E (Business Architecture and the ArchiMate Modeling Language) provides a brief summary of how the ArchiMate motivation and strategy elements can be used to model a Business Architecture
- Appendix F (TOGAF Business Architecture Level 1 Syllabus) provides the TOGAF Business Architecture Level 1 Syllabus

### **How to Use this Study Guide**

The chapters in this Study Guide are arranged to cover the TOGAF Business Architecture Level 1 Syllabus (see Appendix F) and should be read in order. Where a topic requires further information from a later part in the syllabus, a cross-reference is provided.

Within each chapter are “Key Learning Points” and “Summary” sections that help you to easily identify what you need to know for each topic.

Throughout this Study Guide the examples used are drawn from the recruitment management and the retail business use-cases included in the TOGAF Series Guides to Business Capabilities, Business Models, and Value Streams (see References).

Each chapter has a “Test Yourself” questions section that will help you to test your understanding of the chapter and prepare for the TOGAF Business Architecture Examination. The purpose of this is to reinforce Key Learning Points in the chapter. These are multiple-choice format questions where you must identify one correct answer.

Some chapters include an “Exercises” section that will help you reinforce the Learning Outcomes for that chapter.

Each chapter also has a “Recommended Reading” section that indicates the relevant sections in the TOGAF documentation that can be read to obtain a further understanding of the subject material.

Finally, at the end of this Study Guide is a “Test Yourself” examination paper that you can use to test your readiness to take the official TOGAF Business Architecture Examination. This paper is designed to include the same

question formats and a similar difficulty level to the official TOGAF Business Architecture Part 1 Examination.

### Conventions Used in this Study Guide

The following conventions are used throughout this Study Guide in order to help identify important information and avoid confusion over the intended meaning.

- **Ellipsis (...)**  
Indicates a continuation; such as an incomplete list of example items, or a continuation from preceding text.
- **Bold**  
Used to highlight specific terms.
- *Italics*  
Used for emphasis. May also refer to other external documents.
- (Syllabus reference: Unit X, Learning Outcome Y: Statement)  
Used at the start of a text block to identify the TOGAF Business Architecture Syllabus Learning Outcome.

In addition to typographical conventions, the following conventions are used to highlight segments of text:



A Note box is used to highlight useful or interesting information.



A Tip box is used to provide key information that can save you time or that may not be entirely obvious.

### About the TOGAF Standard

The TOGAF Standard, a standard of The Open Group, is a proven Enterprise Architecture methodology and framework used by the world's leading organizations to improve business efficiency. It is the most prominent and reliable Enterprise Architecture standard, ensuring consistent standards, methods, and communication among Enterprise Architecture professionals. Those fluent in the TOGAF standard enjoy greater industry credibility, job effectiveness, and career opportunities. The TOGAF standard helps

practitioners avoid being locked into proprietary methods, utilize resources more efficiently and effectively, and realize a greater return on investment.

### **About The Open Group**

The Open Group is a global consortium that enables the achievement of business objectives through technology standards. Our diverse membership of more than 650 organizations includes customers, systems and solutions suppliers, tools vendors, integrators, academics, and consultants across multiple industries.

The mission of The Open Group is to drive the creation of Boundaryless Information Flow™ achieved by:

- Working with customers to capture, understand, and address current and emerging requirements, establish policies, and share best practices
- Working with suppliers, consortia, and standards bodies to develop consensus and facilitate interoperability, to evolve and integrate specifications and open source technologies
- Offering a comprehensive set of services to enhance the operational efficiency of consortia
- Developing and operating the industry's premier certification service and encouraging procurement of certified products

Further information on The Open Group is available at [www.opengroup.org](http://www.opengroup.org).

The Open Group publishes a wide range of technical documentation, most of which is focused on development of Standards and Guides, but which also includes white papers, technical studies, certification and testing documentation, and business titles. Full details and a catalog are available at [www.opengroup.org/library](http://www.opengroup.org/library).

# About the Authors

*This Study Guide builds on materials from a number of existing publications from The Open Group. The authors listed here are those who prepared this document. See the Acknowledgements section for more information.*

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He is a member of the IEEE, USENIX, and the Association of Enterprise Architects (AEA). He holds an MSc in Computer Science from University College London.

## **Steve Else, EA Principals**

Steve Else is CEO, Chief Architect, and Principal Trainer at EA Principals, a Gold Member of The Open Group. Steve brings a strong operational background to his Enterprise Architecture work, having been a career pilot in the US Air Force and having earned his Airline Transport Rating. He was a leader in a high-level Business Transformation in the US Air Force in 1995 to review all of the Air Force lines of business in terms of capabilities and resources in order to make recommendations about how best to use the public and private sector to meet requirements. In addition, his published doctoral dissertation was on Organization Theory and the Transformation of Large, Complex Organizations.

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The following documents are referenced in this Study Guide:

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- The Open Group Certification for People: Credentials Program, TOGAF® Business Architecture Level 1 Conformance Requirements (X191), April 2019, published by The Open Group; refer to: [www.opengroup.org/library/x191](http://www.opengroup.org/library/x191)
- The Open Group Certification for People: Credentials Program, TOGAF® Business Architecture Level 1 Credential Definition (X190), April 2019, published by The Open Group; refer to: [www.opengroup.org/library/x190](http://www.opengroup.org/library/x190)
- The TOGAF® Standard, Version 9.2, a standard of The Open Group (C182), April 2018, published by The Open Group; refer to: [www.opengroup.org/library/c182](http://www.opengroup.org/library/c182)
- TOGAF® Series Guide: A Practitioners' Approach to Developing Enterprise Architecture Following the TOGAF® ADM (G186), March 2018, published by The Open Group; refer to: [www.opengroup.org/library/g186](http://www.opengroup.org/library/g186)
- TOGAF® Series Guide: Architecture Project Management (G188), May 2018, published by The Open Group; refer to: [www.opengroup.org/library/g188](http://www.opengroup.org/library/g188)
- TOGAF® Series Guide: Business Capabilities (G189), June 2018, published by The Open Group; refer to: [www.opengroup.org/library/g189](http://www.opengroup.org/library/g189)
- TOGAF® Series Guide: Business Models (G18A), June 2018, published by The Open Group; refer to: [www.opengroup.org/library/g18a](http://www.opengroup.org/library/g18a)
- TOGAF® Series Guide: Business Scenarios (G176), September 2017, published by The Open Group; refer to: [www.opengroup.org/library/g176](http://www.opengroup.org/library/g176)
- TOGAF® Series Guide: Information Mapping (G190), April 2019, published by The Open Group; refer to: [www.opengroup.org/library/g190](http://www.opengroup.org/library/g190)
- TOGAF® Series Guide: The TOGAF® Integrated Information Infrastructure Reference Model (III-RM): An Architected Approach to Boundaryless Information Flow™ (G179), November 2017, published by The Open Group; refer to: [www.opengroup.org/library/g179](http://www.opengroup.org/library/g179)

- TOGAF® Series Guide: The TOGAF® Leader's Guide to Establishing and Evolving an EA Capability (G184), February 2018, published by The Open Group; refer to: [www.opengroup.org/library/g184](http://www.opengroup.org/library/g184)
- TOGAF® Series Guide: The TOGAF® Technical Reference Model (TRM) (G175), September 2017, published by The Open Group; refer to: [www.opengroup.org/library/g175](http://www.opengroup.org/library/g175)
- TOGAF® Series Guide: Using the TOGAF® Framework to Define and Govern Service-Oriented Architectures (G174), September 2017, published by The Open Group; refer to: [www.opengroup.org/library/g174](http://www.opengroup.org/library/g174)
- TOGAF® Series Guide: Value Streams (G178), October 2017, published by The Open Group; refer to: [www.opengroup.org/library/g178](http://www.opengroup.org/library/g178)
- Why Does Enterprise Architecture Matter?, White Paper (W076), December 2008, published by The Open Group; refer to: [www.opengroup.org/library/w076](http://www.opengroup.org/library/w076)

The following web links are referenced in this Study Guide:

- The Open Group TOGAF Certification website: [www.opengroup.org/certifications/togaf](http://www.opengroup.org/certifications/togaf)
- The Open Group Credentials website: [www.opengroup.org/certifications/credentials](http://www.opengroup.org/certifications/credentials)
- The TOGAF information website: [www.opengroup.org/togaf](http://www.opengroup.org/togaf)

The following documents provide additional information:

- A Business-Oriented Foundation for Service Orientation ,Ulrich Homann, White Paper, February 2006
- A New Framework for Business Models, Mark W. Johnson, Harvard Business Review, January 21, 2010; refer to: [hbr.org/2010/01/is-your-business-model-a-myste-1](http://hbr.org/2010/01/is-your-business-model-a-myste-1)
- Business Architecture using the ArchiMate® Modeling Language, The Open Group Webinar (D232), Marc Lankhorst, BiZZdesign BV, December 2018; refer to: [www.opengroup.org/library/d232](http://www.opengroup.org/library/d232)
- Mapping the Business Model Canvas to ArchiMate®, L.O. Meertens, M.E. Iacob, L.J.M. Nieuwenhuis, M.J. van Sinderen, University of Twente and H. Jonkers, D. Quartel, BiZZdesign BV; refer to: <https://ris.utwente.nl/ws/portalfiles/portal/5363569/Meertens12mapping.pdf>

- The Open Group Certification for People: TOGAF® Conformance Requirements (Multi-Level), Version 3.0 (X1810), April 2018, published by The Open Group; refer to: [www.opengroup.org/library/x1810](http://www.opengroup.org/library/x1810)
- Value Stream Mapping: How to Visualize Work and Align Leadership for Organizational Transformation, Karen Martin, Mike Osterling, McGraw-Hill, 2014

# Introduction

## 1.1 Key Learning Points

This document is a Study Guide for students studying for the TOGAF Business Architecture Level 1 credential. This edition is aligned to the TOGAF Standard, Version 9.2. It will familiarize you with all the topics that you need to know in order to pass the TOGAF Business Architecture Part 1 Examination.

It gives an overview of every learning objective included in the syllabus and in-depth coverage on preparing and taking the examination. It is specifically designed to help individuals prepare for the examination.

This first chapter will provide you with important information on the TOGAF certification program, how credentials such as TOGAF Business Architecture Level 1 fit into the program, and the structure of the TOGAF Business Architecture Part 1 Examination.

## 1.2 The Open Group Certification for People: Credentials Program

The Credentials program is part of The Open Group Certification for People program. It is available to individuals who wish to demonstrate they have attained the required knowledge and understanding of a particular topic. It leads to the award of an Open Badge for each credential.

This Study Guide covers the TOGAF Business Architecture Level 1 credential. It can be studied in its own right independent of other learning paths.

**What is the relationship between the TOGAF Business Architecture Level 1 credential and TOGAF 9 Certification?**

The TOGAF Business Architecture credential is considered to be a specialization. It goes into more detail than the TOGAF 9 Certified syllabus. Individuals are able to choose whether they wish to study just for this credential or use it as an addition to certification in the TOGAF 9 Certification program.

**1.2.1 The TOGAF Business Architecture Level 1 Credential**

The purpose of the TOGAF Business Architecture Level 1 credential, is to provide validation that the candidate has gained an acceptable level of knowledge and understanding of:

- Business Modeling
- Business Capabilities
- Value Streams
- Information Mapping
- TOGAF Business Scenarios

and how to apply them in development of a Business Architecture based on the TOGAF Standard, Version 9.2.

The learning objectives at this level focus on knowledge and comprehension.

Individuals who attain this credential will have demonstrated their understanding of:

- The topic of business modeling and how it relates to Enterprise Architecture within a TOGAF context
- The concept of business capabilities and how business capabilities can be modeled
- Value streams and value stream mapping
- Information Mapping
- How to apply the TOGAF business scenario method
- How a Business Architecture can be developed with the TOGAF Architecture Development Method (ADM)

## Examination

This credential is achieved by passing the TOGAF Business Architecture Part 1 Examination. This is a multiple-choice examination with 30 questions.<sup>2</sup> There is no prerequisite qualification required to take this examination.

### 1.2.2 The TOGAF Business Architecture Level 1 Syllabus

The TOGAF Business Architecture Level 1 Syllabus is contained in Appendix D. Certain topic areas are weighted as more important than others and thus have more questions in the examination. The topic areas covered by the examination together with the number of questions per area in the examination follow:

1. Business Modeling (4 questions)
2. Business Capabilities (7 questions)
3. Value Streams (7 questions)
4. TOGAF Business Scenarios (3 questions)
5. Information Mapping (3 questions)
6. Developing a Business Architecture with the TOGAF ADM (6 questions)

#### 1.2.2.1 Format of the Examination Questions

The examination questions are multiple-choice questions. These are very similar in format to the Test Yourself questions included in each chapter. Note that the exact format for display is test center-specific and will be made clear on the display monitor when taking the examination.



#### Exam Tip

Please read each question carefully before reading the answer options. Be aware that some questions may seem to have more than one right answer, but you are to look for the one that makes the most sense and is the most correct.

#### 1.2.2.2 What ID do I need to present to take the examination?

You should consult with the examination provider regarding the forms of picture ID you are required to present to verify your identity.

<sup>2</sup> For the latest information on examinations, see the TOGAF Certification website at [www.opengroup.org/certifications/togaf](http://www.opengroup.org/certifications/togaf).

### 1.2.2.3 *Can I refer to materials while I take the examination?*

No; it is a closed-book examination.

### 1.2.2.4 *If I fail, how soon can I retake the examination?*

You should check the current policy on The Open Group website. At the time of writing, the policy states that individuals who have failed the examination are not allowed to retake the examination within one (1) month of the first sitting.

## 1.2.3 **Preparing for the Examination**

You can prepare for the examination by working through this Study Guide section-by-section. After completing each section, you should complete the exercises (if any), answer the Test Yourself questions, and read the referenced sections from the TOGAF documentation. Once you have completed all the sections in this Study Guide, you can then attempt the Test Yourself examination paper in Appendix B. It is designed to give a thorough test of your knowledge. If you have completed all the prescribed preparation and can attain a pass mark for the Test Yourself examination paper as described in Appendix C, then it is likely you are ready to sit the examination.

## 1.3 **Summary**

The Open Group Certification for People credential for TOGAF Business Architecture Level 1 is a knowledge-based credential. It leads to award of an Open Badge.

The topic for this Study Guide is preparation for taking the TOGAF Business Architecture Part 1 Examination. The examination comprises 30 simple multiple-choice questions to be completed in 45 minutes.<sup>3</sup>

Preparing for the examination includes the following steps:

- You should work through this Study Guide step-by-step
- At the end of each chapter, you should complete the Test Yourself questions and read the sections of the TOGAF documentation listed under Recommended Reading

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<sup>3</sup> Additional time is allowed for candidates for whom English is a second language where the examination is not available in the local language. For further information see the advice to candidates sheet on The Open Group TOGAF Certification website.

- Once you have completed all the chapters in this Study Guide, you should attempt the Test Yourself examination paper given in Appendix B
- If you can attain the target score in Appendix C, then you have completed your preparation

## 1.4 Test Yourself Questions

- Q1: Which of the following describes the TOGAF Business Architecture Part 1 Examination?
- A. It is an open book examination.
  - B. It has 30 simple multiple-choice questions.
  - C. The examination policy requires you to wait 60 days before a retake.
  - D. The time allowed for the examination is 90 minutes.
- Q2: Which one of the following is the prerequisite for taking this credential?
- A. AEA membership
  - B. TOGAF 9 Certified
  - C. TOGAF 9 Foundation
  - D. None required
- Q3: Which of the following is a learning unit topic included in the TOGAF Business Architecture Level 1 Syllabus?
- A. Architecture Governance
  - B. Architecture Principles
  - C. Interoperability Requirements
  - D. Value Streams
- Q4: Which of the following describes the retake policy for the TOGAF Business Architecture Part 1 Examination?
- A. You must wait seven (7) days before a retake.
  - B. You can retake the examination immediately.
  - C. You must wait one (1) month before a retake.
  - D. You must wait three (3) weeks before a retake.

## 1.5 Recommended Reading

The following are recommended sources of further information for this chapter:

- The Open Group Certification for People: Certification Policy for Examination-Based Programs
- The Open Group Certification for People: Credentials Program, TOGAF® Business Architecture Level 1 Conformance Requirements
- The Open Group Certification for People: Credentials Program, TOGAF® Business Architecture Level 1 Credential Definition
- The Open Group TOGAF Certification website: [www.opengroup.org/certifications/togaf](http://www.opengroup.org/certifications/togaf)
- The TOGAF information website: [www.opengroup.org/togaf](http://www.opengroup.org/togaf)