

# The TOGAF® Standard

## 10<sup>th</sup> Edition

Architecture Development Method

2025 Update



The TOGAF® Standard, 10<sup>th</sup> Edition  
Architecture Development Method  
2025 Update

# **The Open Group Publications available from Van Haren Publishing**

## **The TOGAF® Standard, 10<sup>th</sup> Edition:**

Introduction and Core Concepts  
Architecture Development Method  
Content, Capability, and Governance  
Leader's Guide  
ADM Practitioners' Guide  
Business Architecture  
Enterprise Agility and Digital Transformation  
A Pocket Guide  
TOGAF® Business Architecture Foundation Study Guide  
TOGAF® Enterprise Architecture Foundation Study Guide

## **The TOGAF Series (Version 9.2):**

The TOGAF® Standard, Version 9.2  
The TOGAF® Standard, Version 9.2 – A Pocket Guide  
TOGAF® 9 Foundation Study Guide, 4th Edition  
TOGAF® 9 Certified Study Guide, 4th Edition

## **The Open Group Series:**

The IT4IT™ Standard, Version 3.0  
IT4IT™ for Managing the Business of IT – A Management Guide  
IT4IT™ Foundation Study Guide, 2nd Edition  
The IT4IT™ Reference Architecture, Version 2.1 – A Pocket Guide  
Cloud Computing for Business – The Open Group Guide  
ArchiMate® 3.1 Specification – A Pocket Guide  
ArchiMate® 3.2 Specification  
The Digital Practitioner Pocket Guide  
The Digital Practitioner Foundation Study Guide  
Open Agile Architecture™ – A Standard of The Open Group  
Hospital Reference Architecture Guide: The Complete and Expanded English  
Translation of the Dutch ZiRA

## **The Open Group Press:**

The Turning Point: A Novel about Agile Architects Building a Digital Foundation  
Managing Digital  
Ecosystems Architecture  
For Your Information - About Information, the Universe, and the Modern Age

## **The Open Group Security Series:**

O-TTPS™ – A Management Guide  
Open Information Security Management Maturity Model (O-ISM3)  
Open Enterprise Security Architecture (O-ESA)  
Risk Management – The Open Group Guide  
The Open FAIR™ Body of Knowledge – A Pocket Guide

All titles are available to purchase from:

[www.opengroup.org](http://www.opengroup.org)

[www.vanharen.net](http://www.vanharen.net)

and also many international and online distributors.

# The TOGAF® Standard, 10<sup>th</sup> Edition Architecture Development Method 2025 Update

The  
*TOGAF*®  
Standard — 10<sup>th</sup> Edition



Title: The TOGAF® Standard, 10<sup>th</sup> Edition — Architecture Development Method — 2025 Update  
Series: TOGAF Series  
A Publication of: The Open Group

Publisher: Van Haren Publishing, 's-Hertogenbosch - NL, [www.vanharen.net](http://www.vanharen.net)  
ISBN Hardcopy: 978 94 018 1330 3  
ISBN eBook: 978 94 018 1331 0  
ISBN ePUB: 978 94 018 1332 7  
Edition: First edition, first impression, April 2022  
Second edition, first impression, June 2025

Layout and Cover Design: The Open Group

Copyright: © 2022-2025 The Open Group. All rights reserved

No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior permission of the copyright owners. Specifically, without such written permission, the use or incorporation of this publication, in whole or in part, is NOT PERMITTED for the purposes of training or developing large language models (LLMs) or any other generative artificial intelligence systems, or otherwise for the purposes of using, or in connection with the use of, such technologies, tools, or models to generate any data or content and/or to synthesize or combine with any other data or content.

Any use of this publication for commercial purposes is subject to the terms of the Annual Commercial License relating to it. For further information, see [www.opengroup.org/legal/licensing](http://www.opengroup.org/legal/licensing).

## **The TOGAF® Standard, 10<sup>th</sup> Edition — Architecture Development Method**

Document number: C220

Published by The Open Group, June 2025.

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

The Open Group  
Apex Plaza  
Reading  
Berkshire, RG1 1AX  
United Kingdom

or by electronic mail to: [ogspece@opengroup.org](mailto:ogspece@opengroup.org)

# Table of Contents

Preface .....	xiii
The Open Group .....	xiii
This Document .....	xiii
The TOGAF® Standard .....	xiv
The TOGAF Documentation .....	xiv
Intended Audience .....	xiv
Acknowledgements .....	xiv
Trademarks .....	xv
Referenced Documents .....	xvi
<b>Volume: Architecture Development Method .....</b>	<b>1</b>
1. Introduction .....	3
1.1. ADM Overview .....	3
1.1.1. The ADM, Enterprise Continuum, and Architecture Repository .....	3
1.1.2. The ADM and the Foundation Architecture .....	4
1.1.3. ADM and Supporting Guidelines and Techniques .....	4
1.2. Architecture Development Cycle .....	5
1.2.1. Key Points .....	5
1.2.2. Basic Structure .....	5
1.3. Adapting the ADM .....	7
1.4. Architecture Governance .....	9
1.5. Scoping the Architecture .....	10
1.5.1. Breadth .....	11
1.5.2. Depth .....	12
1.5.3. Time Period .....	12
1.5.4. Architecture Domains .....	13
1.6. Architecture Alternatives .....	14
1.6.1. Method .....	14
1.7. Architecture Integration .....	15
1.8. Summary .....	16
2. Preliminary Phase .....	17
2.1. Objectives .....	18
2.2. Inputs .....	18
2.2.1. Reference Materials External to the Enterprise .....	18
2.2.2. Non-Architectural Inputs .....	18
2.2.3. Architectural Inputs .....	19
2.3. Steps .....	19
2.3.1. Scope the Enterprise Organizations Impacted .....	20

2.3.2. Confirm Governance and Support Frameworks .....	20
2.3.3. Define and Establish Enterprise Architecture Team and Organization .....	20
2.3.4. Identify and Establish Architecture Principles .....	21
2.3.5. Tailor the TOGAF Framework and, if any, Other Selected Architecture Framework(s) .....	21
2.3.6. Develop a Strategy and Implementation Plan for Tools and Techniques .....	22
2.4. Outputs .....	23
2.5. Approach .....	24
2.5.1. Enterprise .....	25
2.5.2. Organizational Context .....	25
2.5.3. Requirements for Architecture Work .....	26
2.5.4. Principles .....	26
2.5.5. Management Frameworks .....	27
2.5.6. Relating the Management Frameworks .....	28
2.5.7. Planning for Enterprise Architecture/Business Change Maturity Evaluation .....	29
3. Phase A: Architecture Vision .....	31
3.1. Objectives .....	31
3.2. Inputs .....	32
3.2.1. Reference Materials External to the Enterprise .....	32
3.2.2. Non-Architectural Inputs .....	32
3.2.3. Architectural Inputs .....	32
3.3. Steps .....	33
3.3.1. Establish the Architecture Project .....	33
3.3.2. Identify Stakeholders, Concerns, and Business Requirements .....	33
3.3.3. Confirm and Elaborate Business Goals, Business Drivers, and Constraints .....	34
3.3.4. Evaluate Capabilities .....	35
3.3.5. Assess Readiness for Business Transformation .....	35
3.3.6. Define Scope .....	36
3.3.7. Confirm and Elaborate Architecture Principles, including Business Principles .....	36
3.3.8. Develop Architecture Vision .....	36
3.3.9. Define the Target Architecture Value Propositions and KPIs .....	37
3.3.10. Identify the Business Transformation Risks and Mitigation Activities .....	37
3.3.11. Develop Statement of Architecture Work; Secure Approval .....	38
3.4. Outputs .....	39
3.5. Approach .....	40
3.5.1. General .....	40
3.5.2. Creating the Architecture Vision .....	40
4. Phase B: Business Architecture .....	43
4.1. Objectives .....	43
4.2. Inputs .....	44
4.2.1. Reference Materials External to the Enterprise .....	44

4.2.2. Non-Architectural Inputs .....	44
4.2.3. Architectural Inputs .....	44
4.3. Steps .....	45
4.3.1. Select Reference Models, Viewpoints, and Tools .....	46
4.3.2. Develop Baseline Business Architecture Description .....	48
4.3.3. Develop Target Business Architecture Description .....	49
4.3.4. Perform Gap Analysis .....	49
4.3.5. Define Candidate Roadmap Components .....	49
4.3.6. Resolve Impacts Across the Architecture Landscape .....	49
4.3.7. Conduct Formal Stakeholder Review .....	50
4.3.8. Finalize the Business Architecture .....	50
4.3.9. Create/Update the Architecture Definition Document .....	50
4.4. Outputs .....	50
4.5. Approach .....	52
4.5.1. General .....	52
4.5.2. Developing the Baseline Description .....	53
4.5.3. Applying Business Capabilities .....	53
4.5.4. Applying Value Streams .....	54
4.5.5. Applying the Organization Map .....	54
4.5.6. Applying Information Maps .....	55
4.5.7. Applying Modeling Techniques .....	55
4.5.8. Architecture Repository .....	57
5. Phase C: Information Systems Architectures .....	58
5.1. Objectives .....	59
5.2. Approach .....	59
6. Phase C: Information Systems Architectures — Data Architecture .....	60
6.1. Objectives .....	60
6.2. Inputs .....	60
6.2.1. Reference Materials External to the Enterprise .....	60
6.2.2. Non-Architectural Inputs .....	60
6.2.3. Architectural Inputs .....	60
6.3. Steps .....	61
6.3.1. Select Reference Models, Viewpoints, and Tools .....	62
6.3.2. Develop Baseline Data Architecture Description .....	65
6.3.3. Develop Target Data Architecture Description .....	65
6.3.4. Perform Gap Analysis .....	65
6.3.5. Define Candidate Roadmap Components .....	66
6.3.6. Resolve Impacts Across the Architecture Landscape .....	66
6.3.7. Conduct Formal Stakeholder Review .....	66
6.3.8. Finalize the Data Architecture .....	67



6.3.9. Create/Update the Architecture Definition Document	67
6.4. Outputs	67
6.5. Approach	68
6.5.1. Data Structure	68
6.5.2. Key Considerations for Data Architecture	69
6.5.3. Architecture Repository	70
7. Phase C: Information Systems Architectures — Application Architecture	71
7.1. Objectives	71
7.2. Inputs	71
7.2.1. Reference Materials External to the Enterprise	71
7.2.2. Non-Architectural Inputs	71
7.2.3. Architectural Inputs	71
7.3. Steps	72
7.3.1. Select Reference Models, Viewpoints, and Tools	73
7.3.2. Develop Baseline Application Architecture Description	76
7.3.3. Develop Target Application Architecture Description	76
7.3.4. Perform Gap Analysis	77
7.3.5. Define Candidate Roadmap Components	77
7.3.6. Resolve Impacts Across the Architecture Landscape	77
7.3.7. Conduct Formal Stakeholder Review	78
7.3.8. Finalize the Application Architecture	78
7.3.9. Create/Update the Architecture Definition Document	78
7.4. Outputs	79
7.5. Approach	80
7.5.1. Architecture Repository	80
8. Phase D: Technology Architecture	81
8.1. Objectives	81
8.2. Inputs	82
8.2.1. Reference Materials External to the Enterprise	82
8.2.2. Non-Architectural Inputs	82
8.2.3. Architectural Inputs	82
8.3. Steps	83
8.3.1. Select Reference Models, Viewpoints, and Tools	84
8.3.2. Develop Baseline Technology Architecture Description	88
8.3.3. Develop Target Technology Architecture Description	88
8.3.4. Perform Gap Analysis	89
8.3.5. Define Candidate Roadmap Components	89
8.3.6. Resolve Impacts Across the Architecture Landscape	89
8.3.7. Conduct Formal Stakeholder Review	89
8.3.8. Finalize the Technology Architecture	90

8.3.9. Create/Update the Architecture Definition Document .....	90
8.4. Outputs .....	90
8.5. Approach .....	91
8.5.1. Emerging Technologies .....	91
8.5.2. Architecture Repository .....	92
9. Phase E: Opportunities & Solutions .....	93
9.1. Objectives .....	93
9.2. Inputs .....	94
9.2.1. Reference Materials External to the Enterprise .....	94
9.2.2. Non-Architectural Inputs .....	94
9.2.3. Architectural Inputs .....	94
9.3. Steps .....	95
9.3.1. Determine/Confirm Key Corporate Change Attributes .....	96
9.3.2. Determine Business Constraints for Implementation .....	96
9.3.3. Review and Consolidate Gap Analysis Results from Phases B to D .....	96
9.3.4. Review Consolidated Requirements Across Related Business Functions .....	97
9.3.5. Consolidate and Reconcile Interoperability Requirements .....	97
9.3.6. Refine and Validate Dependencies .....	98
9.3.7. Confirm Readiness and Risk for Business Transformation .....	98
9.3.8. Formulate Implementation and Migration Strategy .....	98
9.3.9. Identify and Group Major Work Packages .....	99
9.3.10. Identify Transition Architectures .....	99
9.3.11. Create the Architecture Roadmap & Implementation and Migration Plan .....	99
9.4. Outputs .....	100
9.5. Approach .....	102
10. Phase F: Migration Planning .....	103
10.1. Objectives .....	104
10.2. Inputs .....	104
10.2.1. Reference Materials External to the Enterprise .....	104
10.2.2. Non-Architectural Inputs .....	104
10.2.3. Architectural Inputs .....	104
10.3. Steps .....	106
10.3.1. Confirm Management Framework Interactions for the Implementation and Migration Plan .....	106
10.3.2. Assign a Business Value to Each Work Package .....	107
10.3.3. Estimate Resource Requirements, Project Timings, and Availability/Delivery Vehicle .....	108
10.3.4. Prioritize the Migration Projects by Conducting a Cost/Benefit Assessment and Risk Assessment .....	108
10.3.5. Confirm Architecture Roadmap and Update Architecture Definition Document .....	108
10.3.6. Complete the Implementation and Migration Plan .....	109

10.3.7. Complete the Architecture Development Cycle and Document Lessons Learned . . . . .	109
10.4. Outputs . . . . .	109
10.5. Approach . . . . .	110
11. Phase G: Implementation Governance . . . . .	112
11.1. Objectives . . . . .	113
11.2. Inputs . . . . .	113
11.2.1. Reference Materials External to the Enterprise . . . . .	113
11.2.2. Non-Architectural Inputs . . . . .	113
11.2.3. Architectural Inputs . . . . .	113
11.3. Steps . . . . .	114
11.3.1. Confirm Scope and Priorities for Deployment with Development Management . . . . .	115
11.3.2. Identify Deployment Resources and Skills . . . . .	115
11.3.3. Guide Development of Solutions Deployment . . . . .	115
11.3.4. Perform Enterprise Architecture Compliance Reviews . . . . .	116
11.3.5. Implement Business and IT Operations . . . . .	116
11.3.6. Perform Post-Implementation Review and Close the Implementation . . . . .	116
11.4. Outputs . . . . .	116
11.5. Approach . . . . .	117
12. Phase H: Architecture Change Management . . . . .	119
12.1. Objectives . . . . .	120
12.2. Inputs . . . . .	120
12.2.1. Reference Materials External to the Enterprise . . . . .	120
12.2.2. Non-Architectural Inputs . . . . .	120
12.2.3. Architectural Inputs . . . . .	120
12.3. Steps . . . . .	122
12.3.1. Establish Value Realization Process . . . . .	122
12.3.2. Deploy Monitoring Tools . . . . .	122
12.3.3. Manage Risks . . . . .	122
12.3.4. Provide Analysis for Architecture Change Management . . . . .	123
12.3.5. Develop Change Requirements to Meet Performance Targets . . . . .	123
12.3.6. Manage Governance Process . . . . .	123
12.3.7. Activate the Process to Implement Change . . . . .	123
12.4. Outputs . . . . .	123
12.5. Approach . . . . .	124
12.5.1. Drivers for Change . . . . .	125
12.5.2. Enterprise Architecture Change Management Process . . . . .	127
12.5.3. Guidelines for Maintenance <i>versus</i> Architecture Redesign . . . . .	128
13. ADM Architecture Requirements Management . . . . .	129
13.1. Objectives . . . . .	130
13.2. Inputs . . . . .	130

13.3. Steps	131
13.4. Outputs	133
13.5. Approach	134
13.5.1. General	134
13.5.2. Requirements Development	135
13.5.3. Resources	135
<b>Volume: ADM Techniques</b>	137
14. Introduction	139
15. Architecture Principles	140
15.1. Introduction	140
15.2. Characteristics of Architecture Principles	141
15.3. Components of Architecture Principles	141
15.4. Developing Architecture Principles	142
15.4.1. Qualities of Principles	142
15.5. Applying Architecture Principles	143
15.6. Example Set of Architecture Principles	144
15.6.1. Business Principles	145
15.6.2. Data Principles	150
15.6.3. Application Principles	155
15.6.4. Technology Principles	157
16. Stakeholder Management	160
16.1. Introduction	160
16.2. Approach to Stakeholder Management	160
16.3. Steps in the Stakeholder Management Process	161
16.3.1. Identify Stakeholders	161
16.3.2. Classify Stakeholder Positions	162
16.3.3. Determine Stakeholder Management Approach	163
16.3.4. Tailor Engagement Deliverables	164
16.4. Template Stakeholder Map	164
17. Architecture Patterns	171
17.1. Introduction	171
17.1.1. Background	171
17.1.2. Content of a Pattern	171
17.1.3. Terminology	174
18. Gap Analysis	176
18.1. Introduction	176
18.2. Suggested Steps	177
18.3. Example	177
19. Interoperability Requirements	179
19.1. Overview	179

19.2. Defining Interoperability .....	179
19.3. Enterprise Operating Model .....	181
19.4. Refining Interoperability .....	181
19.5. Determining Interoperability Requirements .....	183
19.6. Reconciling Interoperability Requirements with Potential Solutions .....	185
20. Business Transformation Readiness Assessment .....	186
20.1. Introduction .....	186
20.1.1. Business Transformation Enablement Program (BTEP) .....	186
20.2. Determine Readiness Factors .....	187
20.3. Present Readiness Factors .....	189
20.4. Assess Readiness Factors .....	190
20.4.1. Readiness Factor Vision .....	191
20.4.2. Readiness Factor Rating .....	191
20.4.3. Readiness Factor Risks & Actions .....	192
20.5. Readiness and Migration Planning .....	192
20.6. Marketing the Implementation Plan .....	193
20.7. Conclusion .....	193
21. Risk Management .....	194
21.1. Introduction .....	194
21.2. Risk Classification .....	194
21.3. Risk Identification .....	195
21.4. Initial Risk Assessment .....	195
21.5. Risk Mitigation and Residual Risk Assessment .....	197
21.6. Conduct Residual Risk Assessment .....	197
21.7. Risk Monitoring and Governance (Phase G) .....	197
21.8. Summary .....	198
22. Architecture Alternatives and Trade-Offs .....	199
22.1. Concept .....	199
22.2. Method .....	199
22.2.1. Criteria .....	200
22.2.2. Identify Alternatives .....	201
22.2.3. Choose from Alternatives and Define in Detail .....	202
<b>Volume: Applying the ADM</b> .....	203
23. Introduction .....	205
23.1. Using the TOGAF Framework with Different Architecture Styles .....	205
24. Applying Iteration to the ADM .....	207
24.1. Overview .....	207
24.2. Iteration Cycles .....	208
24.3. Classes of Architecture Engagement .....	209
24.4. Approaches to Architecture Development .....	213

24.5. Iteration Considerations .....	214
24.5.1. Iteration between ADM Cycles .....	214
24.5.2. Iteration within an ADM Cycle .....	216
24.6. Conclusions .....	219
25. Applying the ADM Across the Architecture Landscape .....	220
25.1. Overview .....	220
25.2. Architecture Landscape .....	220
25.3. Developing Architectures at Different Levels .....	222
25.4. Organizing the Architecture Landscape .....	222
26. Architecture Partitioning .....	224
26.1. Overview .....	224
26.2. Applying Classification to Create Partitioned Architectures .....	224
26.2.1. Activities within the Preliminary Phase .....	225
26.3. Integration .....	227
Index .....	230



# Preface

## The Open Group

The Open Group is a global consortium that enables the achievement of business objectives through technology standards and open source initiatives by fostering a culture of collaboration, inclusivity, and mutual respect among our diverse group of 900+ memberships. Our membership includes customers, systems and solutions suppliers, tool 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 are available at [www.opengroup.org/library](http://www.opengroup.org/library).

## This Document

This document is a compilation of three documents within the TOGAF® Standard:

- The TOGAF Standard — Architecture Development Method  
This document describes the TOGAF Architecture Development Method (ADM) — an iterative approach to developing an Enterprise Architecture.
- The TOGAF Standard — ADM Techniques  
This document contains a collection of techniques available for use in applying the TOGAF approach and the TOGAF ADM.
- The TOGAF Standard — Applying the ADM  
This document contains guidelines for adapting the TOGAF ADM to address the specific style of architecture required in a practical context.



## The TOGAF® Standard

The TOGAF® Standard is an open, industry consensus framework for Enterprise Architecture.

It is a foundational framework, which means that it is applicable to the development of any kind of architecture in any context. This foundational framework is supplemented by The Open Group TOGAF Library, a publicly-accessible resource with an extensive and growing portfolio of guidance material, providing practical guidance in the application of the TOGAF framework in specific contexts; refer to: [www.opengroup.org/togaf-library](http://www.opengroup.org/togaf-library).

## The TOGAF Documentation

The TOGAF documentation consists of a set of documents:

- The TOGAF Standard, which describes the generally applicable approach to Enterprise and IT Architecture
- The TOGAF Library, a portfolio of additional guidance material, which supports the practical application of the TOGAF approach

## Intended Audience

The TOGAF Standard is intended for Enterprise Architects, Business Architects, IT Architects, Data Architects, Systems Architects, Solution Architects, and anyone responsible for the architecture function within an organization.

## Acknowledgements

The Open Group is grateful for the contribution of many individuals and organizations in the development of the TOGAF Standard. See the TOGAF Standard — Introduction and Core Concepts for details.