An Introduction to the TOGAF® Standard, Version 9.2

A White Paper by:

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An Introduction to the TOGAF® Standard, Version 9.2

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Executive Summary

This White Paper provides an introduction to the TOGAF Standard, Version 9.2. Topics addressed include:

- An introduction to the TOGAF standard
- The structure of the TOGAF documentation, including the TOGAF Library
- Architecture in the context of the TOGAF standard
- The contents of the TOGAF standard
- About the TOGAF Standard, Version 9.2
- Changes between Version 9.1 and Version 9.2 of the TOGAF standard

Introduction to 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. Put simply, it is a standard approach for assisting in the acceptance, production, use, and maintenance of Enterprise Architectures. It is based on an iterative process model supported by best practices and a re-usable set of existing architectural assets.

The TOGAF standard is developed and maintained by members of The Open Group, working within the Architecture Forum. The original development of TOGAF Version 1 in 1995 was based on the US Department of Defense Technical Architecture Framework for Information Management (TAFIM). Starting from this sound foundation, The Open Group Architecture Forum has developed successive versions of the TOGAF standard and published each one on The Open Group public website.

Accompanying the standard is the TOGAF Library. The TOGAF Library is a reference library containing guidelines, templates, patterns, and other forms of reference material to accelerate the creation of new architectures for the enterprise.

This White Paper covers the TOGAF Standard, Version 9.2, published in April 2018. It is an update providing additional guidance, introducing structural changes to support the TOGAF Library (an extensive collection of reference material), correcting errors, and removing obsolete content. A description of the changes is provided in Changes Between Version 9.1 and Version 9.2 of the TOGAF Standard (on page 13).

The TOGAF standard can be used for developing a broad range of different Enterprise Architectures. It complements, and can be used in conjunction with, other frameworks that are more focused on specific deliverables for particular vertical sectors such as Government, Telecommunications, Manufacturing, Defense, and Finance. A key part of the TOGAF standard is the method – the TOGAF Architecture Development Method (ADM) – for developing an Enterprise Architecture that addresses business needs.

Structure of the TOGAF Documentation

The TOGAF documentation consists of the TOGAF standard, and a portfolio of guidance material, known as the TOGAF Library, to support the practical application of the standard.

The TOGAF standard is divided into six parts, as summarized in Table 1.

Table 1: Structure of the TOGAF Standard

Part I: Introduction	This part provides a high-level introduction to the key concepts of Enterprise Architecture and, in particular, to the TOGAF approach. It contains the definitions of terms used throughout the standard.
Part II: Architecture Development Method	This part is the core of the TOGAF framework. It describes the TOGAF Architecture Development Method (ADM) – a step-by-step approach to developing an Enterprise Architecture.
Part III: ADM Guidelines and Techniques	This part contains a collection of guidelines and techniques available for use in applying the TOGAF approach and the TOGAF ADM. Additional guidelines and techniques are also in the TOGAF Library.

Part IV: Architecture Content Framework	This part describes the TOGAF content framework, including a structured metamodel for architectural artifacts, the use of re-usable Architecture Building Blocks (ABBs), and an overview of typical architecture deliverables.
Part V: Enterprise Continuum and Tools	This part discusses appropriate taxonomies and tools to categorize and store the outputs of architecture activity within an enterprise.
Part VI: Architecture Capability Framework	This part discusses the organization, processes, skills, roles, and responsibilities required to establish and operate an architecture practice within an enterprise.

The structure of the TOGAF Library is summarized in Table 2.

Table 2: Structure of the TOGAF Library

Section 1: Foundation Documents	Broadly applicable information relating to the subject of the TOGAF framework or Enterprise Architecture.
Section 2: Generic Guidelines and Techniques	Information describing architecture styles and how the TOGAF framework and Enterprise Architecture can be adapted to exploit the characteristics of a more specific context.
Section 3: Industry-Specific Guidance and Techniques	Information describing how the TOGAF framework and Enterprise Architecture can be applied to meet the specific needs of a vertical industry segment.
Section 4: Organization-Specific Guidance and Techniques	Information describing how the TOGAF framework and Enterprise Architecture have been applied to meet the needs of specific enterprises.

Included in the TOGAF Library to support the TOGAF Standard, Version 9.2 is a set of supporting guidance documents known as the TOGAF Series Guides. The TOGAF Series Guides contain detailed guidance on how to use the TOGAF framework, and are expected to be the most rapidly developing part of the TOGAF documentation set. While the TOGAF framework documented in the standard is expected to be long-lived and stable, guidance on the use of the TOGAF framework can be industry, architectural style, purpose, and problem-specific.

The current TOGAF Series Guides include:

- TOGAF® Series Guide: The TOGAF® Leader's Guide to Establishing and Evolving an EA Capability
- TOGAF® Series Guide: A Practitioners' Approach to Developing Enterprise Architecture Following the TOGAF® ADM
- TOGAF® Series Guide: Value Streams
- TOGAF® Series Guide: Using the TOGAF® Framework to Define and Govern Service-Oriented Architectures
- TOGAF® Series Guide: Business Scenarios
- TOGAF® Series Guide: The TOGAF® Technical Reference Model (TRM)

- TOGAF® Series Guide: The TOGAF® Integrated Information Infrastructure Reference Model (III-RM): An Architected Approach to Boundaryless Information Flow™
- TOGAF® Series Guide: Business Capabilities*
- TOGAF® Series Guide: Business Models*
- TOGAF® Series Guide: Architecture Project Management*

The TOGAF Library is available at www.opengroup.org/togaf-library.

What is Architecture in the Context of the TOGAF Standard?

ISO/IEC/IEEE 42010:2011[1] defines "architecture" as:

"The fundamental concepts or properties of a system in its environment embodied in its elements, relationships, and in the principles of its design and evolution."

The TOGAF standard embraces ISO/IEC/IEEE 42010:2011 terminology, extending it to also define a second meaning depending upon the context:

"The structure of components, their inter-relationships, and the principles and guidelines governing their design and evolution over time."

What Kinds of Architecture does the TOGAF Standard Deal with?

The TOGAF standard covers the development of four related types of architecture. These four types of architecture are commonly accepted as subsets of an overall Enterprise Architecture. They are shown in Table 3.

Table 3: Architecture Types Supported by the TOGAF Standard

Architecture Type	Description
Business Architecture	The business strategy, governance, organization, and key business processes.
Data Architecture	The structure of an organization's logical and physical data assets and data management resources.
Application Architecture	A blueprint for the individual applications to be deployed, their interactions, and their relationships to the core business processes of the organization.

* To be published in 2018.

[1] ISO/IEC/IEEE 42010:2011, Systems and Software Engineering – Architecture Description.

Architecture Type	Description
Technology Architecture	The logical software and hardware capabilities that are required to support the deployment of business, data, and application services. This includes IT infrastructure, middleware, networks, communications, processing, and standards.

What does the TOGAF Standard Contain?

The contents of the TOGAF standard reflect the structure and content of an Architecture Capability within an enterprise, as shown in Figure 1.

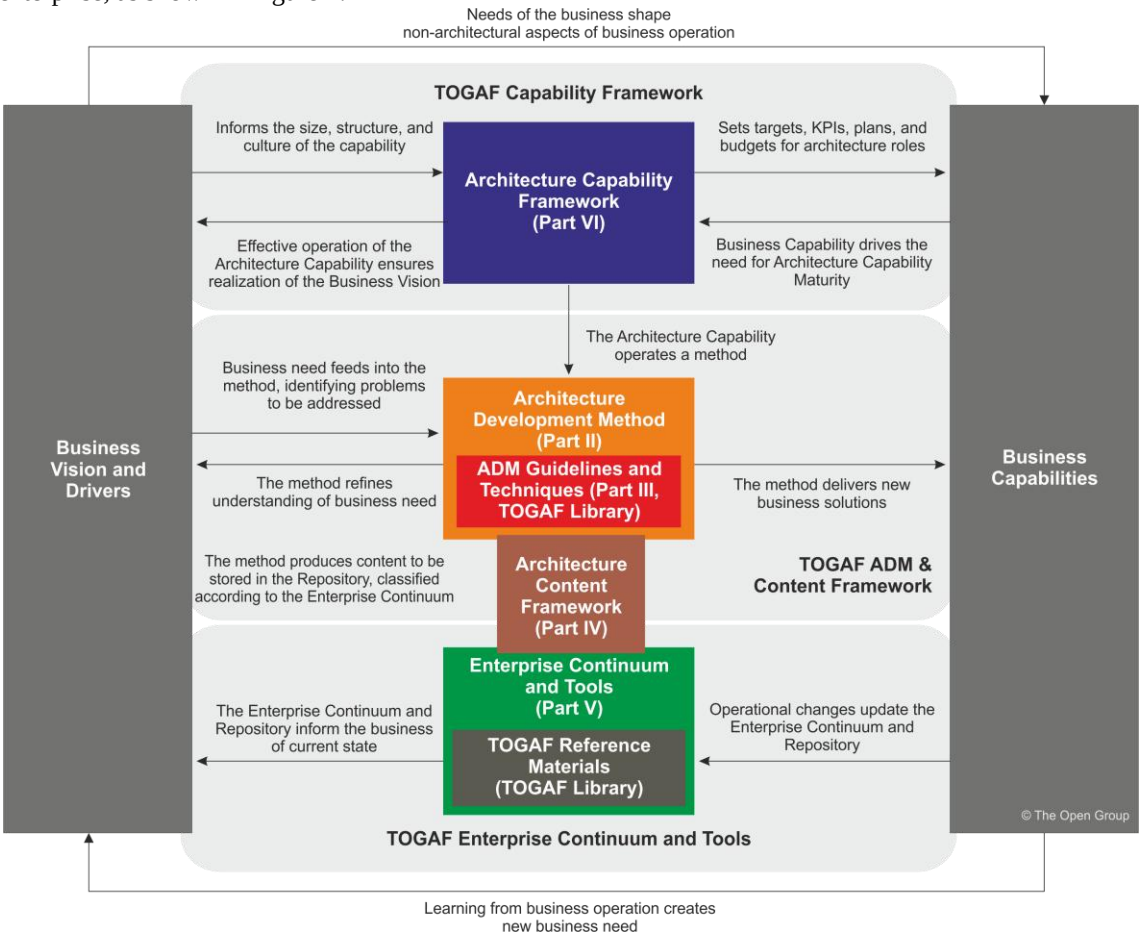

Figure 1: TOGAF Content Overview

Central to the TOGAF framework is the Architecture Development Method (ADM), documented in Part II of the standard. The Architecture Capability (documented in Part VI of the standard) operates the method. The method is supported by a number of guidelines and techniques (documented in Part III of the standard, and the TOGAF Library). This produces content to be stored in the repository (documented in Part IV of the standard), which is classified according to the Enterprise Continuum (documented in Part V of the standard). The repository can be initially populated with the TOGAF Reference Models and other reference materials (documented in the TOGAF Library).

The Architecture Development Method (ADM)

The ADM describes how to derive an organization-specific Enterprise Architecture that addresses business requirements. The ADM is the major component of the TOGAF framework and provides guidance for architects on a number of levels:

- It provides a number of architecture development phases (Business Architecture, Information Systems Architectures, Technology Architecture) in a cycle, as an overall process template for architecture development activity
- It provides a narrative of each architecture phase, describing the phase in terms of objectives, approach, inputs, steps, and outputs; the inputs and outputs sections provide a definition of the architecture content structure and deliverables (a detailed description of the phase inputs and phase outputs is given in the Architecture Content Framework)
- It provides cross-phase summaries that cover requirements management

ADM Guidelines and Techniques

ADM Guidelines and Techniques provides a number of guidelines and techniques to support the application of the ADM. The guidelines include adapting the ADM to deal with a number of usage scenarios, including different process styles – the use of iteration, and applying the ADM across the Architecture Landscape. There is also a high-level description of how to use the TOGAF framework with different architectural styles using SOA as an example. The techniques support specific tasks within the ADM (such as capability-based planning, defining principles, gap analysis, migration planning, risk management, stakeholder management, etc.). Additional guidelines and techniques are also available in the TOGAF Library (for example, guidance on the business scenarios technique).

Architecture Content Framework

The Architecture Content Framework provides a detailed model of architectural work products, including deliverables, artifacts within deliverables, and the Architecture Building Blocks (ABBs) that artifacts represent.

The Enterprise Continuum

The Enterprise Continuum provides a model for structuring a virtual repository and provides methods for classifying architecture and solution artifacts, showing how the different types of artifacts evolve, and how they can be leveraged and re-used. This is based on architectures and solutions (models, patterns, architecture descriptions, etc.) that exist within the enterprise and in the industry at large, and which the enterprise has collected for use in the development of its architectures.

The Architecture Capability Framework

The Architecture Capability Framework is a set of resources, guidelines, templates, background information, etc. provided to help the architect establish an architecture practice within an organization.

About the TOGAF Standard, Version 9.2

The TOGAF Standard, Version 9.2 is an update to the previous version providing improved guidance, improving the document structure, correcting errors, and removing obsolete content. Key enhancements made in this version include updates to the Business Architecture and the Content Metamodel. All of these changes make the TOGAF framework easier to use and maintain. It retains the major features and structure of the TOGAF Standard, Version 9.1, as follows.

Modular Structure

The TOGAF standard has a modular structure, which supports:

- Greater usability – a defined purpose for each part, and can be used in isolation as a standalone set of guidelines
- Incremental adoption of the TOGAF standard
- Accompanying the standard is a portfolio of guidance material, known as the TOGAF Library, to support the practical application of the TOGAF approach

Content Framework

The TOGAF standard includes a content framework to drive greater consistency in the outputs that are created when following the Architecture Development Method (ADM). The TOGAF content framework provides a detailed model of architectural work products.

Extended Guidance

The TOGAF standard features an extended set of concepts and guidelines to support the establishment of an integrated hierarchy of architectures being developed by teams within larger organizations that operate within an overarching architectural governance model. In particular, the following concepts are included:

- Partitioning – a number of techniques and considerations on how to partition the various architectures within an enterprise
- Architecture Repository – a logical information model for an Architecture Repository which can be used as an integrated store for all outputs created by executing the ADM
- Capability Framework – a structured definition of the organization, skills, roles, and responsibilities required to operate an effective Enterprise Architecture Capability; the TOGAF standard also provides guidance on a process that can be followed to identify and establish an appropriate Architecture Capability

Architectural Styles

The TOGAF standard is designed to be flexible and it can be used with various architectural styles. Examples are provided both in the TOGAF standard, in Part III (ADM Guidelines and Techniques), and in the TOGAF Library.

Together these comprise a set of supporting materials that show in detail how the ADM can be applied to specific situations; for example:

- The varying uses of iteration that are possible within the ADM and when each technique should be applied
- The various types of architecture development required within an enterprise and how these relate to one another
- The use of the TOGAF ADM with Service-Oriented Architectures (SOAs), risk and security, etc. (these specific examples are documented in the TOGAF Library)

Additional ADM Detail

The TOGAF Standard, Version 9.2 includes additional detailed information over earlier versions of the TOGAF standard for supporting the execution of the ADM. Particular areas of enhancement are:

- The Architecture Vision and Business Architecture phases feature extended guidance on development of the Business Architecture; this includes focus on Business Capabilities, Value Streams, and Organization Maps
- The Technology Architecture phase recognizes that emerging technologies are increasingly leading to technology-driven change

Supporting Guides

A significant change introduced with the TOGAF Standard, Version 9.2 is the addition of TOGAF Series Guides and related Guides from The Open Group. These allow for additional guidance to be provided and also maintained separately from the standard. At the time of writing, the following had been published (with more planned to appear in 2018):

Support for establishing and developing an Enterprise Architecture:

- TOGAF® Series Guide: The TOGAF® Leader's Guide to Establishing and Evolving an EA Capability
- TOGAF® Series Guide: A Practitioners' Approach to Developing Enterprise Architecture Following the TOGAF® ADM

Support for Business Architecture:

- TOGAF® Series Guide: Value Streams
- Business Capabilities, an Open Group Guide

Example reference models:

- TOGAF® Series Guide: The TOGAF® Technical Reference Model (TRM)
- TOGAF® Series Guide: The TOGAF® Integrated Information Infrastructure Reference Model (III-RM): An Architected Approach to Boundaryless Information Flow™

Guidance for SOA:

- TOGAF® Series Guide: Using the TOGAF® Framework to Define and Govern Service-Oriented Architectures

Guidance for identifying business requirements:

- TOGAF® Series Guide: Business Scenarios

Changes Between Version 9.1 and Version 9.2 of the TOGAF Standard

An overview of the changes introduced with the TOGAF Standard, Version 9.2 is included here.

Version 9.1	Version 9.2	Comments
Part I: Introduction	**Part I: Introduction**	
1 Introduction	**1 Introduction**	The introduction is revised to describe this update and in particular to introduce the TOGAF Library. The document set description is changed from seven to six parts (Reference Models are now relocated to the TOGAF Library). A description of the structure of the TOGAF Library is added. In the Executive Overview, the descriptions of "enterprise" and the "enterprise operating model " are refined. The descriptions are also updated to place an emphasis on "Digital Transformation". The end sections from TOGAF 9.1 Chapter 4 are moved to the end of Chapter 1, and provide information on Using the TOGAF Standard and Why Join The Open Group.
2 Core Concepts	**2 Core Concepts**	References to ISO/IEC/IEEE 42010 are updated here and throughout the document to the 2011 edition. The structure of the Architecture Repository is updated to include the Solutions Landscape and Architecture Requirements Repository. A reference to the IT4IT™ Reference Architecture is added as an example of adopting other elements to integrate with when tailoring the TOGAF framework. Minor editorial cleanup is applied to this (and all chapters).
3 Definitions	**3 Definitions**	The following new terms are added: Application Component, Architecture Model, Business Capability, Business Model, Course of Action, Information System Service, Model Kind, Organization Map, Service, Service Portfolio, Technology Component, Technology Service, Value Stream, Viewpoint Library The following terms are deleted: Application Platform Interface, Constraint, Methodology, Model, Performance Management, Platform The following terms are revised: Actor, Architecture Domain, Architectural Style, Architecture, Architecture Development Method, Architecture Framework, Architecture Governance, Boundaryless Information Flow, Building Block, Business Architecture, Concern, Service Orientation, Service-Oriented Architecture, Stakeholder, Technology Architecture View and Viewpoint are renamed to Architecture View and Architecture Viewpoint. Concerns is renamed to Concern.

Version 9.1	Version 9.2	Comments
4 Release Notes	Removed	This chapter is removed. Partial contents (4.5, 4.6) about using the TOGAF standard are updated and moved to end of Chapter 1.
Part II: Architecture Development Method	**Part II: Architecture Development Method**	
5 Introduction	**4 Introduction to Part II**	The description of supporting guidelines and techniques is updated to also include the TOGAF Library. The IT4IT Reference Architecture is added to the examples.
6 Preliminary Phase	**5 Preliminary Phase**	The Approach section is moved to the end of the chapter. The TOGAF Library is named as an input. The step "Implement architecture tools" is now renamed to "Develop strategy and implementation plans for tools and techniques", and additional guidance provided. Terminology tailoring now recommends creation of an Enterprise Glossary.
7 Phase A: Architecture Vision	**6 Phase A: Architecture Vision**	The Approach section is moved to the end of the chapter and revised extensively. One of the steps is renamed from "Evaluate business capabilities" to "Evaluate capabilities". Explicit mention of a Stakeholder Map is added into the Develop the Architecture Vision step. Guidance is added on evaluation of business models and identification of required business capabilities. New artifacts added: Business Model diagram, Business Capability map, Value Stream map
8 Phase B: Business Architecture	**7 Phase B: Business Architecture**	The Approach section is moved to the end of the chapter and revised extensively to include further advice on Business Architecture. The first objective is revised to address the Statement of Architecture Work (rather than the Request for Architecture Work as it stated previously). Artifacts added: Value Stream catalog, Business Capabilities catalog, Value Stream Stages catalog, Value Stream/Capability matrix, Strategy/Capability matrix, Capability/Organization matrix, Business model diagram, Business Capability map, Value Stream map, Organization map
9 Phase C: Information Systems Architectures	**8 Phase C: Information Systems Architectures**	The phase text is simplified to just Objectives and Approach, with pointers to the following two chapters for details.
10 Phase C: Information Systems Architectures – Data Architecture	**9 Phase C: Information Systems Architectures – Data Architecture**	The first objective is revised to address the Statement of Architecture Work (rather than the Request for Architecture Work as it stated previously). The Approach section is moved to the end of the chapter with a minor revision to example standards.

Version 9.1	Version 9.2	Comments
11 Phase C: Information Systems Architectures – Application Architecture	**10 Phase C: Information Systems Architectures – Application Architecture**	The first objective is revised to address the Statement of Architecture Work (rather than the Request for Architecture Work as it stated previously). The Approach section is moved to the end of the chapter with minor revisions. In Steps, to support agile development a "must" is changed to a "should" (as in should complete all steps).
12 Phase D: Technology Architecture	**11 Phase D: Technology Architecture**	The first objective is revised to address the Statement of Architecture Work (rather than the Request for Architecture Work as it stated previously). It is also refined to focus on building block delivery through technology components and services. The Approach section is moved to the end of the chapter with revisions to address emerging technologies and Digital Transformation. References to the TRM and III-RM reference models are updated to refer to the TOGAF Series Guides.
13 Phase E: Opportunities & Solutions	**12 Phase E: Opportunities & Solutions**	An objective is added to define the Solution Building Blocks to finalize the Target Architecture. The Approach section is moved to the end of the chapter with minor revisions.
14 Phase F: Migration Planning	**13 Phase F: Migration Planning**	The Approach section is moved to the end of the chapter with minor revisions.
15 Phase G: Implementation Governance	**14 Phase G: Implementation Governance**	The Approach section is moved to the end of the chapter with minor revisions.
16 Phase H: Architecture Change Management	**15 Phase H: Architecture Change Management**	The Approach section is moved to the end of the chapter.
17 ADM Architecture Requirements Management	**16 ADM Architecture Requirements Management**	The Approach section is moved to the end of the chapter. References to the "Requirements Repository" are changed to the "Architecture Requirements Repository".
Part III: ADM Guidelines and Techniques	**Part III: ADM Guidelines and Techniques**	
18 Introduction	**17 Introduction to Part III**	References are added to external guides for examples of architectural style: Security and SOA. Additional text is provided about architectural styles including example documents. Minor editorials are also applied.
19 Applying Iteration to the ADM	**18 Applying Iteration to the ADM**	Minor editorial changes only. No substantive changes.

Version 9.1	Version 9.2	Comments
20 Applying the ADM across the Architecture Landscape	**19 Applying the ADM Across the Architecture Landscape**	Minor editorial changes only. No substantive changes.
21 Security Architecture and the ADM	Removed	This chapter is removed and advice on risk and security is published separately as: Integrating Risk and Security within a TOGAF Enterprise Architecture, available at: www.opengroup.org/library/g152
22 Using TOGAF to Define & Govern SOAs	Removed	This chapter is removed. Content now published as: TOGAF® Series Guide: Using the TOGAF® Framework to Define and Govern Service-Oriented Architectures, available at: www.opengroup.org/library/g174
23 Architecture Principles	**20 Architecture Principles**	Minor editorial changes only. No substantive changes.
24 Stakeholder Management	**21 Stakeholder Management**	The example stakeholder map has been updated to include the new Business Architecture artifacts.
25 Architecture Patterns	**22 Architecture Patterns**	The introduction has been updated. The examples in Sections 25.1.4, 25.2, and 25.3 have been removed, as they are no longer available. Minor editorial changes applied.
26 Business Scenarios and Business Goals	Removed	This chapter is removed and published separately as: TOGAF® Series Guide: Business Scenarios, available at: www.opengroup.org/library/g176
27 Gap Analysis	**23 Gap Analysis**	Text is updated to refer to the TOGAF TRM rather than the Technical Reference Model. Minor editorials. No substantive changes otherwise.
28 Migration Planning Techniques	**24 Migration Planning Techniques**	Rather than referring directly to the TOGAF TRM, the text is updated to now refer to services from the defined taxonomy in the enterprise.
29 Interoperability Requirements	**25 Interoperability Requirements**	The end *Summary* section has been deleted. No substantive changes otherwise.
30 Business Transformation Readiness Assessment	**26 Business Transformation Readiness Assessment**	Minor editorial changes only. No substantive changes.
31 Risk Management	**27 Risk Management**	Minor editorial changes only. No substantive changes.
32 Capability-Based Planning	**28 Capability-Based Planning**	Minor editorial changes only. No substantive changes.
Part IV: Architecture Content Framework	**Part IV: Architecture Content Framework**	

Version 9.1	Version 9.2	Comments
33 Introduction	**29 Introduction to Part IV**	The Content Metamodel Overview figure is updated. In the Business Architecture, the Function category is changed to Behavior. Business Capabilities, Course of Action, and Value Streams are added to Behavior. Location is moved from the Organization category in Business Architecture to Architecture Requirements (as Locations). In the Technology Architecture, Platform Services are changed to Technology Services. Minor editorial changes.
34 Content Metamodel	**30 Content Metamodel**	The descriptions of the concepts of Catalog, Matrix, and Diagram are moved to Chapter 31. Platform Services are renamed Technology Services. The following entities are added to the core metamodel: Business Capability, Course of Action, Value Stream The list of artifacts by phase is removed from this chapter. The changes to the metamodel for extensions are now referred to as Extensions. The metamodel diagrams and the metamodel relationships tables are revised. New relationships are added, and others have been changed. Changes have been made for consistency across the diagrams and relationships table. The Location entity is now a global entity, so text about it being added as part of the Infrastructure Consolidation extension is removed. Figures now show it as a white core element. The Communications and Engineering diagram is renamed to the Network and Communications diagram.
35 Architectural Artifacts	**31 Architectural Artifacts**	Terminology and conceptual figure updated for ISO/IEC/IEEE 42010:2011 and ISO/IEC/IEEE 15288:2015. The description of catalogs, matrices, and diagrams is moved from TOGAF 9.1 Chapter 34 to this chapter. Additional artifacts are added: Business Model diagram, Business Capability map, Value Stream map, Business Capabilities catalog, Value Stream catalog, Value Stream Stages catalog, Value Stream/Capability matrix, Strategy/Capability matrix, Capability/Organization matrix, Organization map The Communications and Engineering diagram is renamed to the Network and Communications diagram. The obsolete TOGAF 9.1 Section 35.7 is removed.
36 Architecture Deliverables	**32 Architecture Deliverables**	The description of tailoring changes has been changed from project and process management frameworks to simply management frameworks. Minor editorial changes. No substantive changes.
37 Building Blocks	**33 Building Blocks**	Minor change to building block definition.
Part V: Enterprise Continuum & Tools	**Part V: Enterprise Continuum & Tools**	

Version 9.1	Version 9.2	Comments
38 Introduction	**34 Introduction to Part V**	Minor editorial changes only. No substantive changes.
39 Enterprise Continuum	**35 Enterprise Continuum**	Minor updates to position the TOGAF TRM as an example. References to the TRM and III-RM are now moved to external TOGAF Series Guides and the TOGAF Library. The IT4IT Reference Architecture is added as an example.
40 Architecture Partitioning	**36 Architecture Partitioning**	Minor editorial changes only. No substantive changes.
41 Architecture Repository	**37 Architecture Repository**	The Architecture Requirements Repository and the Solutions Landscape are added to the Architecture Repository. The IT4IT Reference Architecture is added as an example reference architecture. The list of example external reference models is removed.
42 Tools for Architecture Development	**38 Tools for Architecture Development**	Minor editorial changes only. No substantive changes.
Part VI: TOGAF Reference Models	Removed	
43 Foundation Architecture: Technical Reference Model	Removed	Content moved to TOGAF® Series Guide: The TOGAF Technical Reference Model (TRM), available at: www.opengroup.org/library/g175 Existing Part VI removed.
44 Integrated Information Infrastructure Reference Model	Removed	Content moved to TOGAF® Series Guide: The TOGAF Integrated Information Infrastructure Reference Model (III- RM): An Architected Approach to Boundaryless Information Flow™, available at: www.opengroup.org/library/g179
Part VII: Architecture Capability Framework	**Part VI: Architecture Capability Framework**	
45 Introduction	**39 Introduction to Part VI**	Minor editorial changes only. No substantive changes.
46 Establishing an Architecture Capability	**40 Establishing an Architecture Capability**	Minor editorial changes only. No substantive changes.
47 Architecture Board	**41 Architecture Board**	Minor editorial changes only. No substantive changes.
48 Architecture Compliance	**42 Architecture Compliance**	Minor editorial changes only. No substantive changes.

Version 9.1	Version 9.2	Comments
49 Architecture Contracts	**43 Architecture Contracts**	Minor editorial changes only. No substantive changes.
50 Architecture Governance	**44 Architecture Governance**	Reference to the White Paper: Mapping between TOGAF 8.1 and COBIT 4.0 is removed. Minor editorial changes also applied.
51 Architecture Maturity Models	**45 Architecture Maturity Models**	The text referencing "ACMM Version 1.2" is removed. Level 5: Optimizing has been changed to Level 5: Measured.
52 Architecture Skills Framework	**46 Architecture Skills Framework**	Minor editorial changes only. No substantive changes.
Appendices	**Appendices**	
A Glossary of Supplementary Definitions	**A: Glossary of Supplementary Definitions**	Definition of System aligned to ISO/IEC/IEEE 15288:2015. Removal of supplementary terms no longer used in the document, or those moved to the Definitions chapter (e.g., Application Component, Information System Service, Service, Technology Component). Minor consistency changes.
B Abbreviations	**B: Abbreviations**	Minor changes.

References

(Please note that the links below are good at the time of writing but cannot be guaranteed for the future.)

- Business Capabilities, an Open Group Guide (G161), published by The Open Group, March 2016; refer to: www.opengroup.org/library/g161
- Integrating Risk and Security within a TOGAF® Enterprise Architecture, an Open Group Guide (G152), published by The Open Group, January 2016; refer to: www.opengroup.org/library/g152
- The TOGAF® Standard, Version 9.2, a standard of The Open Group (C182), published by The Open Group, April 2018; refer to: www.opengroup.org/library/c182
- TOGAF® Series Guide: A Practitioners' Approach to Developing Enterprise Architecture Following the TOGAF® ADM (G186), published by The Open Group, March 2018; refer to: www.opengroup.org/g186
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Andrew Josey is VP Standards & Certification overseeing all certification and testing programs of The Open Group. He also manages the standards process for The Open Group. At The Open Group, he has led many standards development projects including specification and certification development for the ArchiMate®, IT4IT™, TOGAF®, Open FAIR™, POSIX®, and UNIX® programs. 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.

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- Capture, understand, and address current and emerging requirements, establish policies, and share best practices
- Facilitate interoperability, develop consensus, and evolve and integrate specifications and open source technologies
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