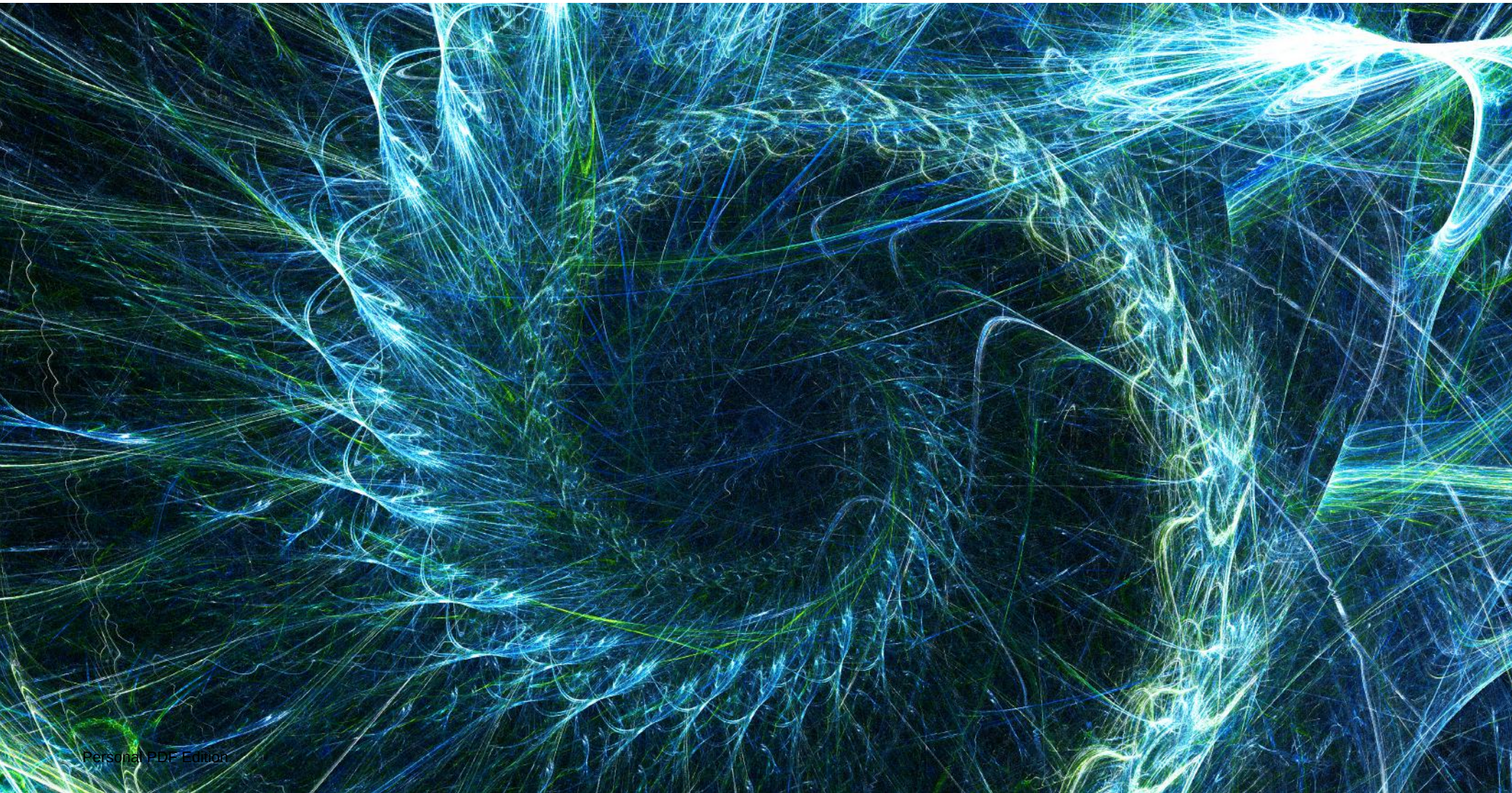
The TOGAF® Standard — *Version 9.2*

THE Open GROUP

OVERVIEW



Personal PDF Edition

The TOGAF® Standard — Version 9.2

The TOGAF® Standard

THE Open GROUP

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 professionals who are fluent in the TOGAF approach enjoy greater industry credibility, job effectiveness, and career opportunities. The TOGAF approach helps practitioners avoid being locked into proprietary methods, utilize resources more efficiently and effectively, and realize a greater return on investment.

The standard is constantly evolving as a result of the work delivered by members of The Open Group Architecture Forum. The most relevant activities currently happening in the Forum that address the new trends and challenges are:

- Providing practical guidance in relation to how to use and adapt the standard to address new trends and fit specific organizational needs
- Agile Enterprise Architecture and the TOGAF standard
- Digital Enterprise – How Enterprise Architecture can support and leverage the current capabilities and identify the new ones needed to transform organizations into the digital era
- Business Capabilities and Business Modeling
- Strategy-based Business Architecture
- Specific guidance on how to use the standard to fit specific organizational needs

The TOGAF standard provides a framework for effective Enterprise Architecture delivery and is supported by a set of documents that provide specific guidance about how to use and adapt it to support new trends. This set of documents reside in the TOGAF Library and represent an extensive new body of knowledge that Enterprise Architecture practitioners can use to support development of Enterprise Architectures.

As part of the evolution of the TOGAF standard, The Open Group released an update to the standard in April 2018. The TOGAF Standard, Version 9.2 has been redesigned and restructured into a smaller publication that includes separate guides. The core of the TOGAF standard remains the same in the new version, but it now includes more on Business Architecture, Security Architecture, mappings to other industry reference models, and practical implementation guides. There is also more focus on digital trends and business transformation beyond IT.

Copyright © 2018 The Open Group. All Rights Reserved.
TOGAF® is a registered trademark of The Open Group.

The TOGAF® Standard — *Version 9.2*

Structure of the TOGAF® Standard

THE Open GROUP

The TOGAF Standard, Version 9.2, is divided into six sections as follows:

PART I: Introduction
A high-level introduction to the key concepts of Enterprise Architecture and in particular the TOGAF approach. It contains the definitions of terms used throughout the standard.

PART II: Architecture Development Method
The core of the TOGAF framework. It describes the TOGAF Architecture Development Method (ADM) – a step-by-step approach to developing an Enterprise Architecture.

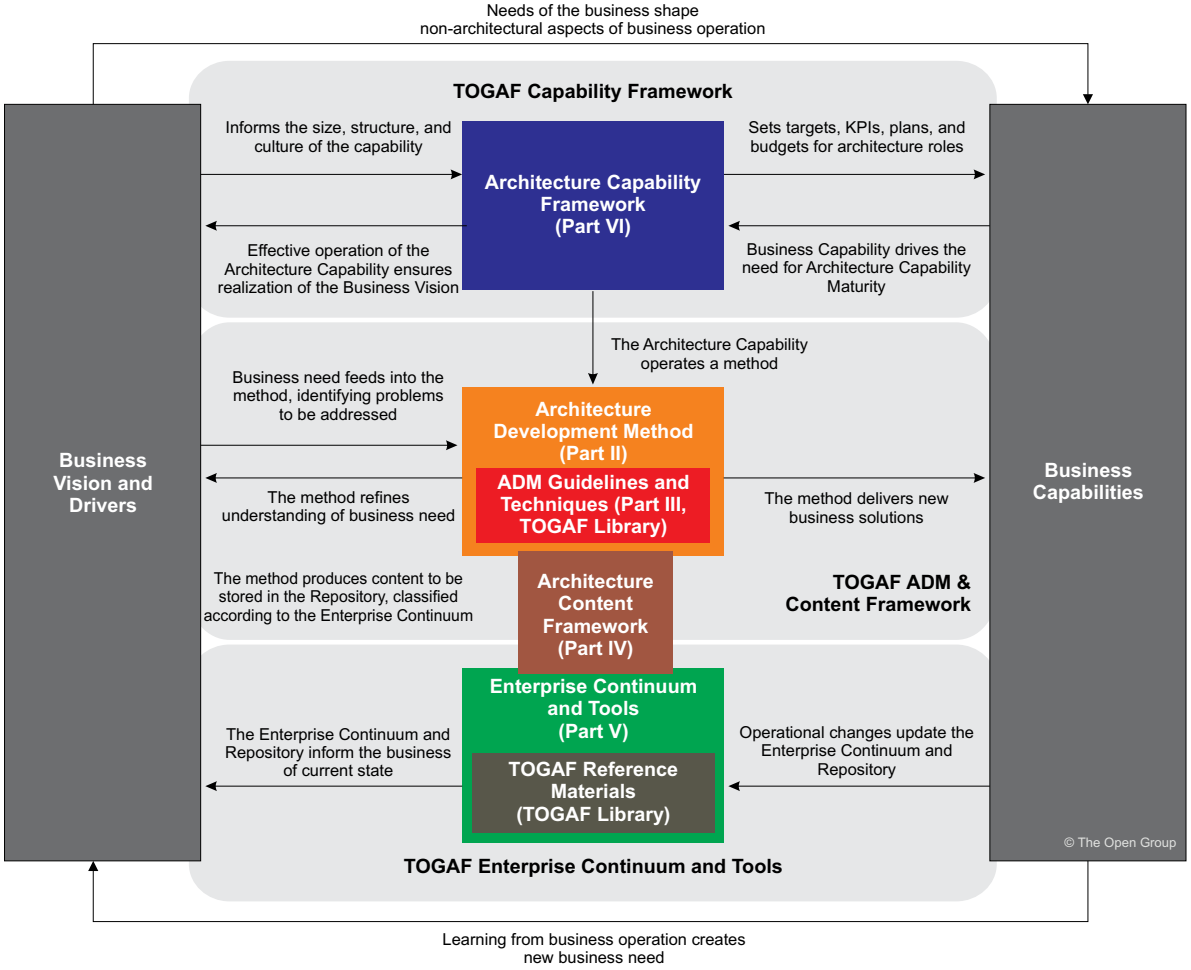
PART III: ADM Guidelines and Techniques
A collection of guidelines and techniques available for use in applying the TOGAF approach and the TOGAF ADM. Additional guidelines and techniques are also in the TOGAF Library.

PART IV: Architecture Content Framework
The TOGAF content framework, including a structured metamodel for architectural artifacts, the use of re-usable architecture building blocks, and an overview of typical architecture deliverables.

PART V: Enterprise Continuum & Tools
Taxonomies and tools to categorize and store the outputs of architecture activity within an enterprise.

PART VI: Architecture Capability Framework
The organization, processes, skills, roles, and responsibilities required to establish and operate an architecture function within an enterprise.

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.



Copyright © 2018 The Open Group. All Rights Reserved.
TOGAF® is a registered trademark of The Open Group.

The TOGAF® Standard — Version 9.2

About the TOGAF Standard, Version 9.2

THE Open GROUP

The TOGAF Standard, Version 9.2 provides improved guidance, corrects errors, improves the document structure, and removes 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 9.1 standard including:

Modular Structure: The TOGAF standard has a modular structure. The modular structure supports:

- Greater usability – defined purpose for each part; 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 & Techniques, and 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:

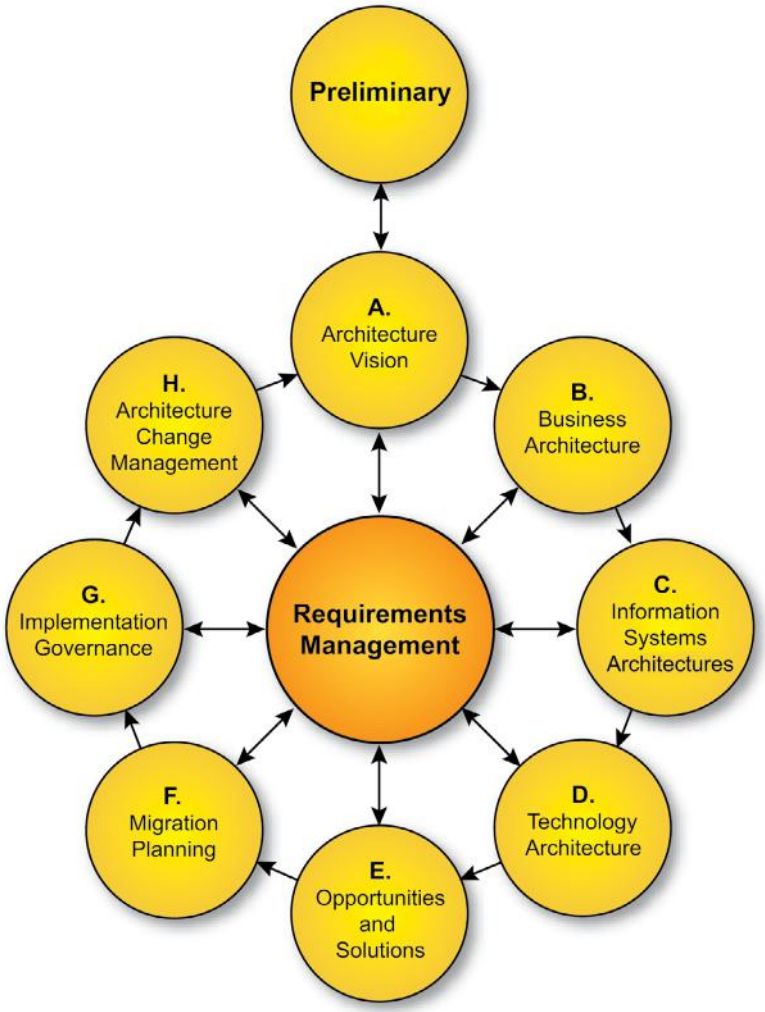
- The varying uses of iteration that are possible within the ADM and when each technique should be applied
- The various types of architecture development required within an enterprise and how these relate to one another

Copyright © 2018 The Open Group. All Rights Reserved.
TOGAF® is a registered trademark of The Open Group.

The TOGAF® Standard — Version 9.2

ADM Overview

THE Open GROUP



Preliminary Phase	Prepare the organization for successful TOGAF architecture projects. Undertake the preparation and initiation activities required to create an Architecture Capability, including the customization of the TOGAF framework, selection of tools, and the definition of Architecture Principles.
Requirements Management	Ensure that every stage of a TOGAF project is based on and validates business requirements. Requirements are identified, stored, and fed into and out of the relevant ADM phases, which dispose of, address, and prioritize requirements.
Phase A: Architecture Vision	Set the scope, constraints, and expectations for a TOGAF project. Create the Architecture Vision. Identify stakeholders. Validate the business context and create the Statement of Architecture Work. Obtain approvals.
Phase B: Business Architecture **Phase C: Information Systems Architectures** **Phase D: Technology Architecture**	Develop architectures in four domains: 1. Business 2. Information Systems – Application 3. Information Systems – Data 4. Technology In each case, develop the Baseline and Target Architecture and analyze gaps.
Phase E: Opportunities and Solutions	Perform initial implementation planning and the identification of delivery vehicles for the building blocks identified in the previous phases. Determine whether an incremental approach is required, and if so identify Transition Architectures.
Phase F: Migration Planning	Develop detailed Implementation and Migration Plan that addresses how to move from the Baseline to the Target Architecture.
Phase G: Implementation Governance	Provide architectural oversight for the implementation. Prepare and issue Architecture Contracts. Ensure that the implementation project conforms to the architecture.
Phase H: Architecture Change Management	Provide continual monitoring and a change management process to ensure that the architecture responds to the needs of the enterprise, and maximizes the business value.

Copyright © 2018 The Open Group. All Rights Reserved.
TOGAF® is a registered trademark of The Open Group.

The TOGAF® Standard — *Version 9.2*

ADM Steps

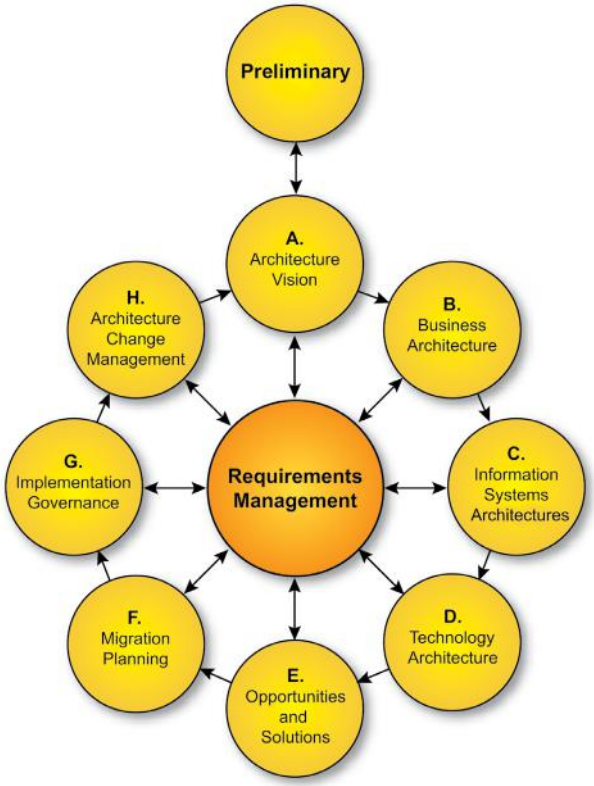
THE Open GROUP

Preliminary Phase
1. Scope the enterprise organizations impacted
2. Confirm governance and support frameworks
3. Define and establish Enterprise Architecture team and organization
4. Identify and establish Architecture Principles
5. Tailor the TOGAF framework and, if any, other selected architecture frameworks
6. Develop a strategy and implementation plan for tools and techniques

Phase A: Architecture Vision
1. Establish the architecture project
2. Identify stakeholders, concerns, and business requirements
3. Confirm and elaborate business goals, business drivers, and constraints
4. Evaluate capabilities
5. Assess readiness for business transformation
6. Define scope
7. Confirm and elaborate Architecture Principles, including business principles
8. Develop Architecture Vision
9. Define the Target Architecture value propositions and KPIs
10. Identify the business transformation risks and mitigation activities
11. Develop Statement of Architecture Work; secure approval

Phase B: Business Architecture
Phase C: Information Systems Architectures
Phase D: Technology Architecture
1. Select reference models, viewpoints, and tools
2. Develop Baseline Architecture Description
3. Develop Target Architecture Description
4. Perform gap analysis
5. Define candidate roadmap components
6. Resolve impacts across the Architecture Landscape
7. Conduct formal stakeholder review
8. Finalize the Architecture
9. Create Architecture Definition Document

Phase E: Opportunities and Solutions
1. Determine/confirm key corporate change attributes
2. Determine business constraints for implementation
3. Review and consolidate gap analysis results from Phases B to D
4. Review consolidated requirements across related business functions
5. Consolidate and reconcile interoperability requirements
6. Refine and validate dependencies
7. Confirm readiness and risk for business transformation
8. Formulate Implementation and Migration Strategy
9. Identify and group major work packages
10. Identify Transition Architectures
11. Create Architecture Roadmap & Implementation and Migration Plan



Phase F: Migration Planning
1. Confirm management framework interactions for Implementation and Migration Plan
2. Assign a business value to each work package
3. Estimate resource requirements, project timings, and availability/delivery vehicle
4. Prioritize the migration projects through the conduct of a cost/benefit assessment and risk validation
5. Confirm Architecture Roadmap and update Architecture Definition Document
6. Complete the Implementation and Migration Plan
7. Complete the development cycle and document lessons learned

Phase G: Implementation Governance
1. Confirm scope and priorities for deployment with development management
2. Identify deployment resources and skills
3. Guide development of solutions deployment
4. Perform Enterprise Architecture Compliance reviews
5. Implement business and IT operations
6. Perform post-implementation review and close the implementation

Phase H: Architecture Change Management
1. Establish value realization process
2. Deploy monitoring tools
3. Manage risks
4. Provide analysis for architecture change management
5. Develop change requirements to meet performance targets
6. Manage governance process
7. Activate the process to implement change

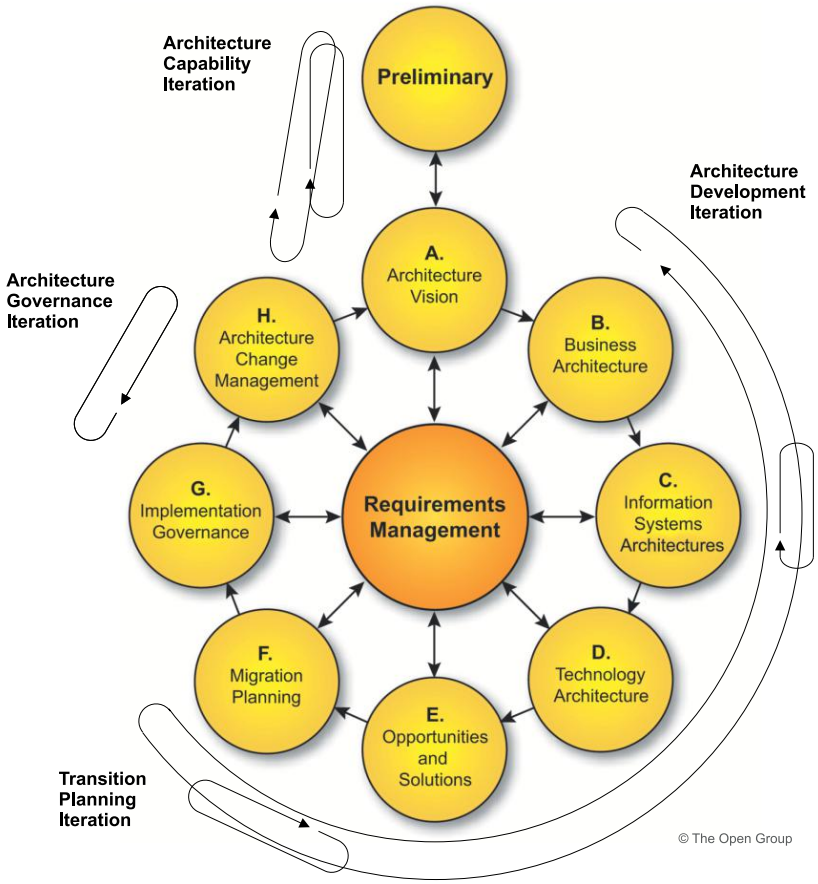
Requirements Management
1. Identify/document requirements
2. Baseline requirements
3. Monitor baseline requirements
4. Identify changed requirement; remove, add, modify, and re-assess priorities
5. Identify changed requirement and record priorities; identify and resolve conflicts; generate requirements impact statements
6. Assess impact of changed requirement on current and previous ADM phases
7. Implement requirements arising from Phase H
8. Update the Architecture Requirements Repository
9. Implement change in the current phase
10. Assess and revise gap analysis for past phases

Copyright © 2018 The Open Group. All Rights Reserved.
TOGAF® is a registered trademark of The Open Group.

The TOGAF® Standard — Version 9.2

ADM Iteration

THE Open GROUP



Baseline First Architecture Definition

		Architecture Development			Transition Planning		Architecture Governance	
TOGAF Phase		Iteration 1	Iteration 2	Iteration *n*	Iteration 1	Iteration *n*	Iteration 1	Iteration *n*
Preliminary		Informal	Informal	Informal				Light
Architecture Vision		Informal	Informal	Informal	Informal	Informal		Light
Business Architecture	Baseline	Core	Light	Core	Informal	Informal		Light
	Target	Informal	Core	Core	Informal	Informal		Light
Application Architecture	Baseline	Core	Light	Core	Informal	Informal		Light
	Target	Informal	Core	Core	Informal	Informal		Light
Data Architecture	Baseline	Core	Light	Core	Informal	Informal		Light
	Target	Informal	Core	Core	Informal	Informal		Light
Technology Architecture	Baseline	Core	Light	Core	Informal	Informal		Light
	Target	Informal	Core	Core	Informal	Informal		Light
Opportunities and Solutions		Light	Light	Light	Core	Core	Informal	Informal
Migration Planning		Light	Light	Light	Core	Core	Informal	Informal
Implementation Governance					Informal	Informal	Core	Core
Change Management		Informal	Informal	Informal	Informal	Informal	Core	Core

Core: primary focus activity for the iteration
Light: secondary focus activity for the iteration
Informal: potential activity for the iteration, not formally mentioned in the method

© The Open Group

Target First Architecture Definition

		Architecture Development			Transition Planning		Architecture Governance	
TOGAF Phase		Iteration 1	Iteration 2	Iteration *n*	Iteration 1	Iteration *n*	Iteration 1	Iteration *n*
Preliminary		Informal	Informal	Informal				Light
Architecture Vision		Informal	Informal	Informal	Informal	Informal		Light
Business Architecture	Baseline	Informal	Core	Core	Informal	Informal		Light
	Target	Core	Light	Core	Informal	Informal		Light
Application Architecture	Baseline	Informal	Core	Core	Informal	Informal		Light
	Target	Core	Light	Core	Informal	Informal		Light
Data Architecture	Baseline	Informal	Core	Core	Informal	Informal		Light
	Target	Core	Light	Core	Informal	Informal		Light
Technology Architecture	Baseline	Informal	Core	Core	Informal	Informal		Light
	Target	Core	Light	Core	Informal	Informal		Light
Opportunities and Solutions		Light	Light	Light	Core	Core	Informal	Informal
Migration Planning		Light	Light	Light	Core	Core	Informal	Informal
Implementation Governance					Informal	Informal	Core	Core
Change Management		Informal	Informal	Informal	Informal	Informal	Core	Core

Core: primary focus activity for the iteration
Light: secondary focus activity for the iteration
Informal: potential activity for the iteration, not formally mentioned in the method

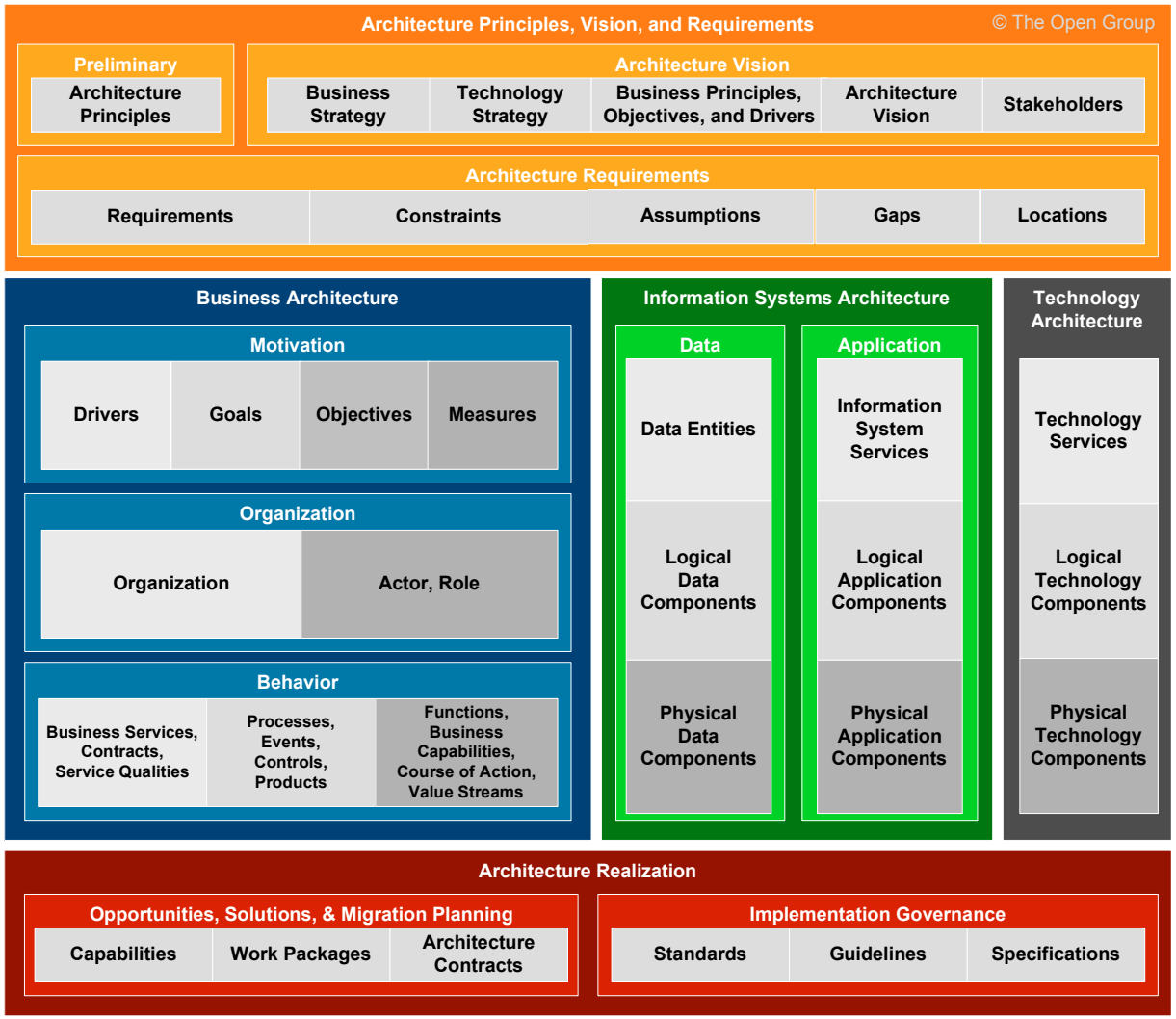
© The Open Group

Copyright © 2018 The Open Group. All Rights Reserved.
TOGAF® is a registered trademark of The Open Group.

The TOGAF® Standard — Version 9.2

Content Metamodel Overview

THE Open GROUP

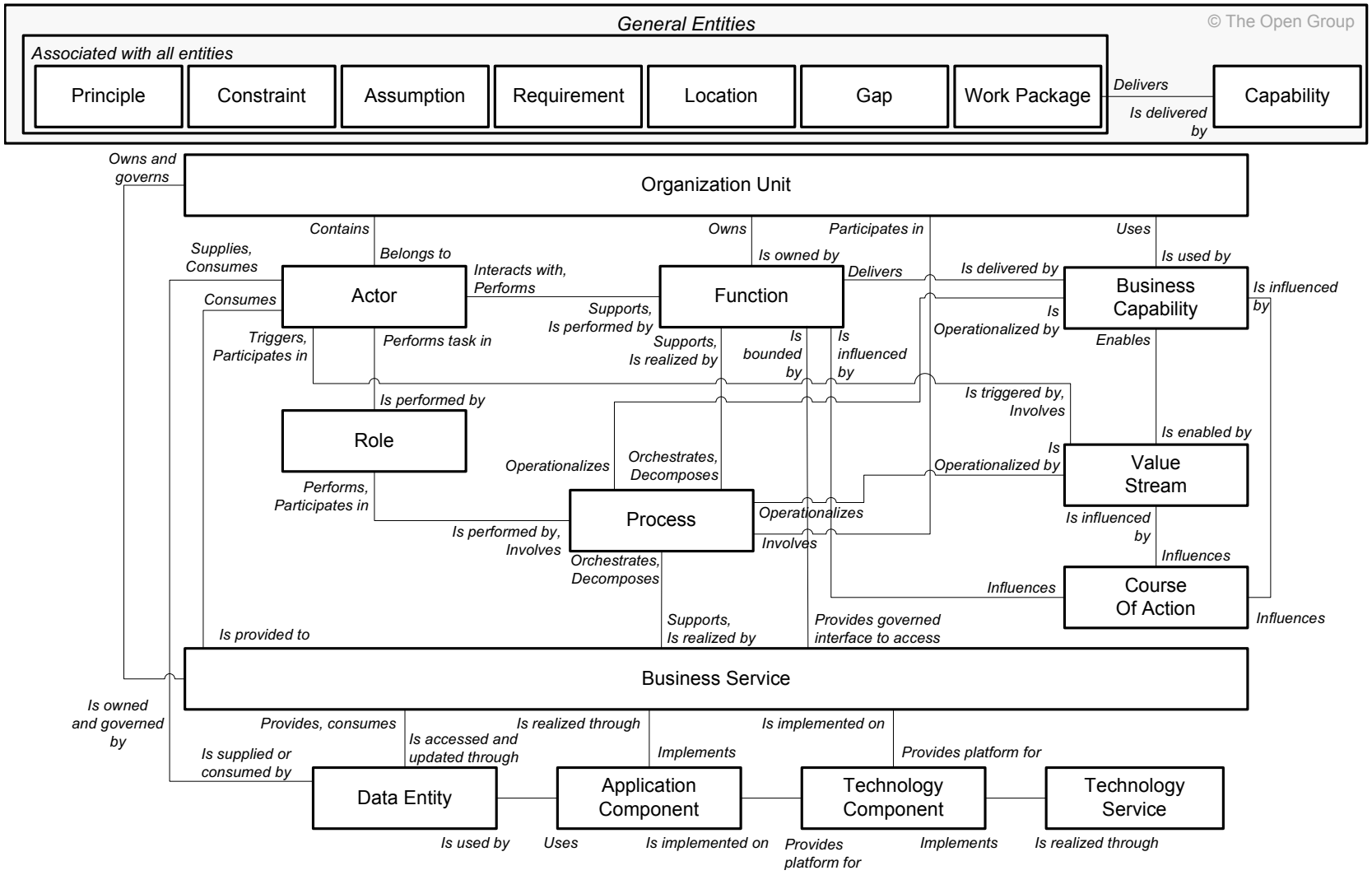


Copyright © 2018 The Open Group. All Rights Reserved.
TOGAF® is a registered trademark of The Open Group.

The TOGAF® Standard — Version 9.2

The Core Content Metamodel

THE Open GROUP

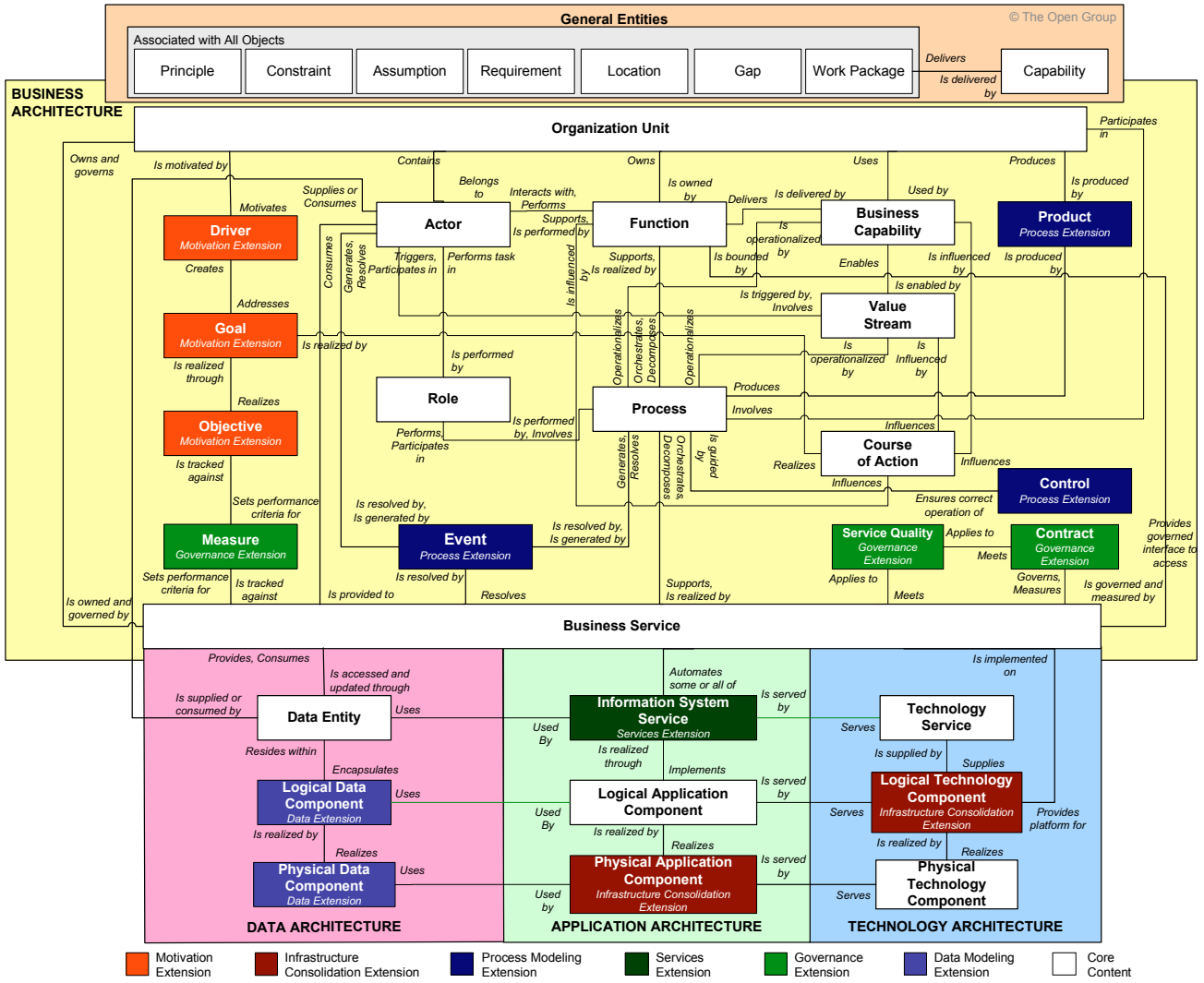


Copyright © 2018 The Open Group. All Rights Reserved.
TOGAF® is a registered trademark of The Open Group.

The TOGAF® Standard — Version 9.2

The Full Content Metamodel

THE Open GROUP

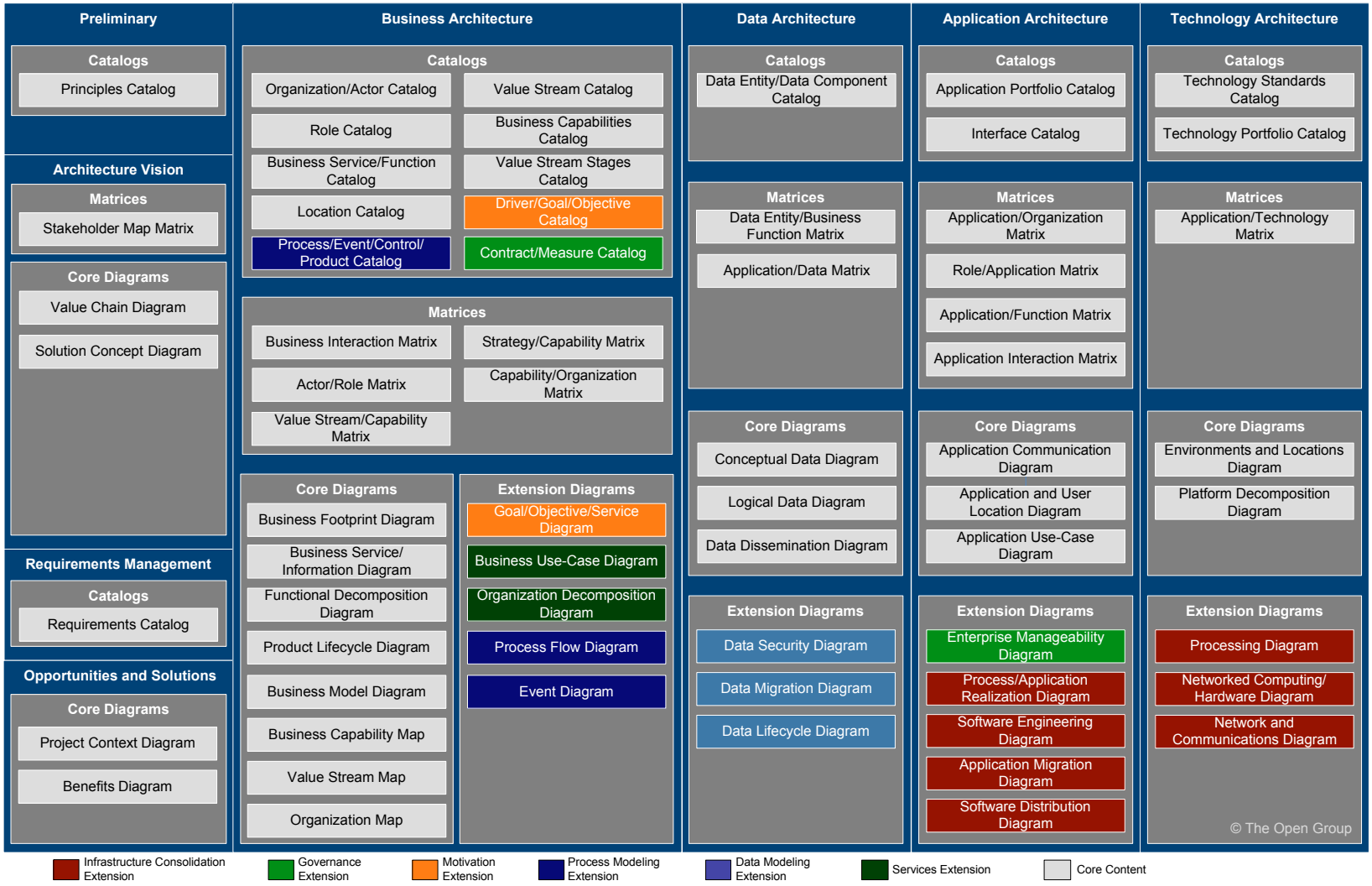


Copyright © 2018 The Open Group. All Rights Reserved.
TOGAF® is a registered trademark of The Open Group.

The TOGAF® Standard — Version 9.2

Artifacts Associated with the Content Metamodel

THE Open GROUP



Copyright © 2018 The Open Group. All Rights Reserved.
TOGAF® is a registered trademark of The Open Group.

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. It is structured as follows:

Section 1: Base Documents	Broadly applicable information relating to the subject of the TOGAF framework or Enterprise Architecture.
Section 2: Generic Guidance 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.

The TOGAF Library: www.opengroup.org/togaf-library

Copyright © 2018 The Open Group. All Rights Reserved.
TOGAF® is a registered trademark of The Open Group.

The TOGAF® Library

TOGAF SERIES GUIDES

STANDARDS

BLOGS

CERTIFICATIONS

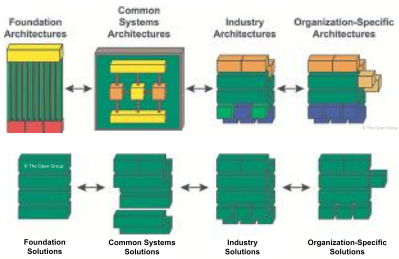
DATA SHEETS

CASE STUDIES

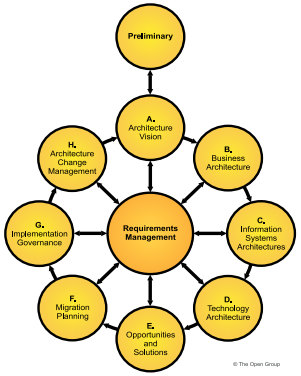
WEBINARS

WHITE PAPERS

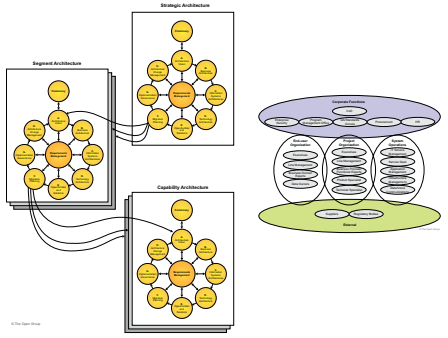
Enterprise Continuum



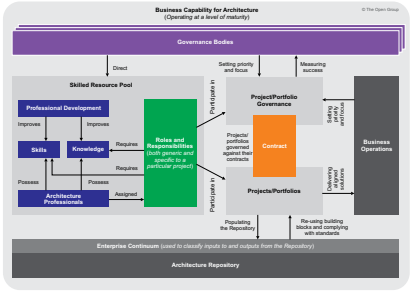
The TOGAF ADM



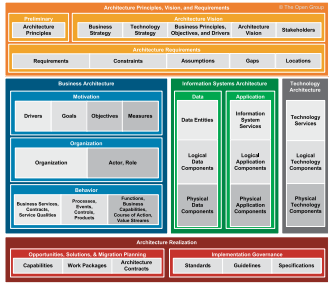
ADM Guidelines and Techniques



Architecture Capability Framework



Content Architecture Framework



The TOGAF® Standard — Version 9.2

REFERENCE ARCHITECTURES

POCKET GUIDES

REFERENCE CARDS

Personal PDF Edition

The TOGAF® Standard — Version 9.2

What are the TOGAF Series Guides?

THE Open GROUP

The TOGAF® Series Guides contain guidance on how to use the TOGAF framework. The TOGAF® Series Guides are expected to be the most rapidly developing part of the TOGAF document set.

While the TOGAF framework 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.

Titles in the 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: Business Models *
- TOGAF® Series Guide: Business Capabilities *
- TOGAF® Series Guide: Architecture Project Management *
- TOGAF® Series Guide: Using the TOGAF® Framework to Define and Govern Service-Oriented Architectures
- TOGAF® Series Guide: The TOGAF® Technical Reference Model (TRM)
- TOGAF® Series Guide: Business Scenarios
- TOGAF® Series Guide: The TOGAF Integrated Information Infrastructure Reference Model (III-RM): An Architected Approach to Boundaryless Information Flow™

In addition to the TOGAF Series Guides, the TOGAF Library includes a large collection of White Papers addressing best practices such as the World Class EA series.
Visit the TOGAF Library at www.opengroup.org/togaf-library

* To be published in 2018

Copyright © 2018 The Open Group. All Rights Reserved.
TOGAF® is a registered trademark of The Open Group.

About The Open Group

Leading the development of open, vendor-neutral technology standards and certifications

The Open Group is a global consortium that enables the achievement of business objectives through technology standards. The Open Group works with customers, suppliers, consortia, and other standards bodies. Its role is to capture, understand, and address current and emerging requirements, establish policies, and share best practices; to facilitate interoperability, develop consensus, and evolve and integrate specifications and open source technologies; and to operate the industry's premier certification service.

Keys facts include:

- Over 585 member organizations, with 43,000+ participants in The Open Group activities from 126 countries - our Platinum Members are DXC Technology, Fujitsu, HCL, Huawei, IBM, Micro Focus, Oracle, and Philips
- Services provided include strategy, management, innovation and research, standards, certification, and test development
- Vision of Boundaryless Information Flow™, with Enterprise Architecture as a critical element for making the vision a reality; the TOGAF® Architecture Development Method (ADM) provides an important toolset

Further information on The Open Group can be found at www.opengroup.org.

Copyright © 2018 The Open Group. All Rights Reserved.
TOGAF® is a registered trademark of The Open Group.

ArchiMate®, DirecNet®, Making Standards Work®, OpenPegasus®, Platform 3.0®, The Open Group®, TOGAF®, UNIX®, UNIXWARE®, X/Open®, and the Open Brand X® logo are registered trademarks and Boundaryless Information Flow™, Build with Integrity Buy with Confidence™, Dependability Through Assuredness™, EMMM™, FACE™, the FACE™ logo, IT4IT™, the IT4IT™ logo, O-DEF™, O-PAS™, Open FAIR™, Open Platform 3.0™, Open Process Automation™, Open Trusted Technology Provider™, SOSA™, the Open O™ logo, and The Open Group Certification logo (Open O and check™) are trademarks of The Open Group.
Copyright © 2018 The Open Group. All Rights Reserved.

Personal PDF Edition