*Chapter 1*

# *Introduction*

**Note:** This handout is derived from Chapter 1 of TOGAF 9.1. It is intended to be used for TOGAF 9 Level 1 training.

TOGAF is a framework — a detailed method and a set of supporting tools — for developing an enterprise architecture. It may be used freely by any organization wishing to develop an enterprise architecture for use within that organization.

TOGAF is developed and maintained by members of The Open Group, working within the Architecture Forum (refer to www.opengroup.org/architecture). The original development of TOGAF Version 1 in 1995 was based on the Technical Architecture Framework for Information Management (TAFIM), developed by the US Department of Defense (DoD). The DoD gave The Open Group explicit permission and encouragement to create TOGAF by building on the TAFIM, which itself was the result of many years of development effort and many millions of dollars of US Government investment.

Starting from this sound foundation, the members of The Open Group Architecture Forum have developed successive versions of TOGAF and published each one on The Open Group public web site.

If you are new to the field of enterprise architecture and/or TOGAF, you are recommended to read the Executive Overview (refer to Section 1.2), where you will find answers to questions such as:

- What is an enterprise?
- Why do I need an enterprise architecture?
- Why do I need TOGAF as a framework for enterprise architecture?

## 1.1 Structure of the TOGAF Document

The structure of the TOGAF documentation reflects the structure and content of an Architecture Capability within an enterprise, as shown in Figure 1-1.

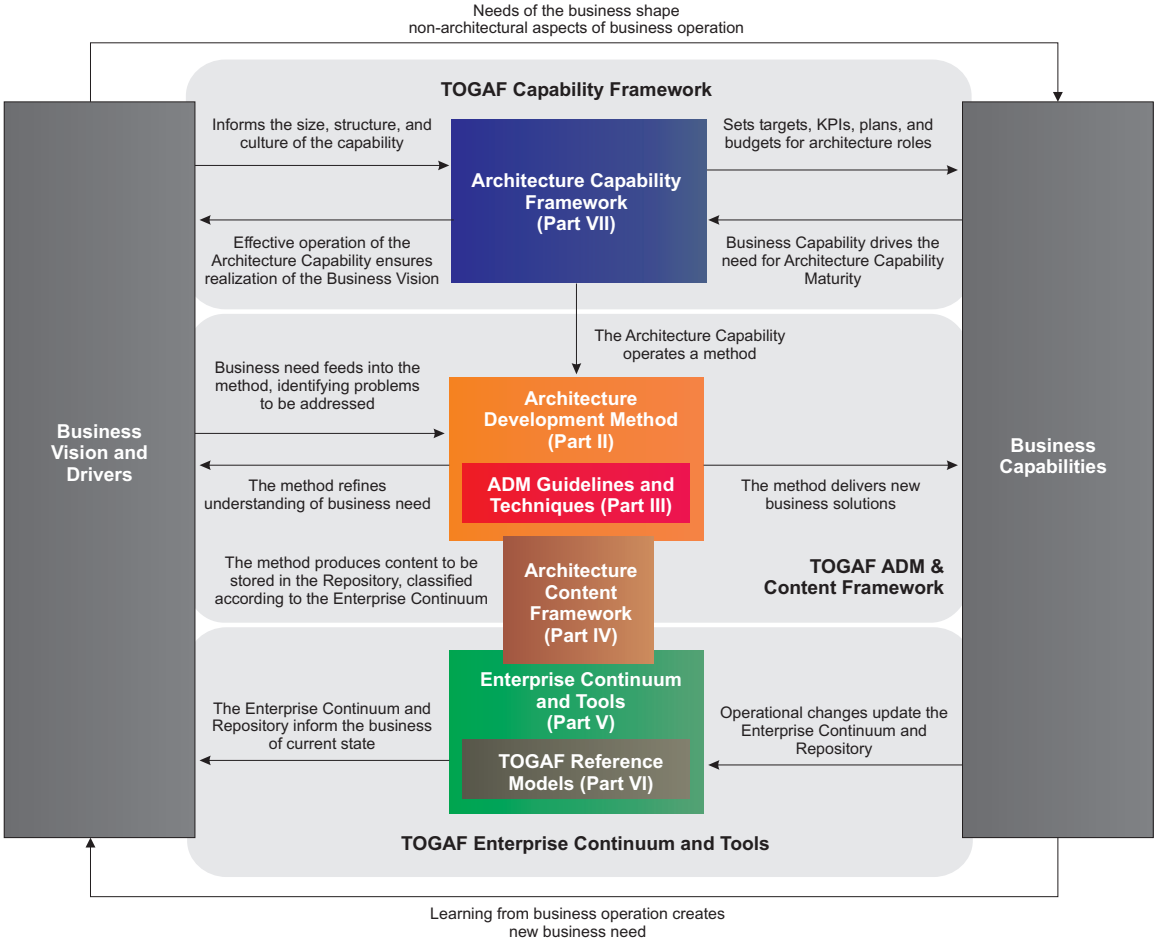


**Figure 1-1** Structure of the TOGAF Document

There are seven parts to the TOGAF document:

PART I (Introduction) This part provides 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 TOGAF and release notes detailing the changes between this version and the previous version of TOGAF.

PART II (Architecture Development Method) This part is the core of TOGAF. 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 TOGAF and the TOGAF ADM.

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, and an overview of typical architecture deliverables.

PART V (Enterprise Continuum & Tools) This part discusses appropriate taxonomies and tools to categorize and store the outputs of architecture activity within an enterprise.

PART VI (TOGAF Reference Models) This part provides a selection of architectural reference models, which includes the TOGAF Foundation Architecture, and the Integrated Information Infrastructure Reference Model (III-RM).

PART VII (Architecture Capability Framework) This part discusses the organization, processes, skills, roles, and responsibilities required to establish and operate an architecture function within an enterprise.

The intention of dividing the TOGAF specification into these independent parts is to allow for different areas of specialization to be considered in detail and potentially addressed in isolation. Although all parts work together as a whole, it is also feasible to select particular parts for adoption while excluding others. For example, an organization may wish to adopt the ADM process, but elect not to use any of the materials relating to Architecture Capability.

As an open framework, such use is encouraged, particularly in the following situations:

- Organizations that are new to TOGAF and wish to incrementally adopt TOGAF concepts are expected to focus on particular parts of the specification for initial adoption, with other areas tabled for later consideration.
- Organizations that have already deployed architecture frameworks may choose to merge these frameworks with aspects of the TOGAF specification.

## 1.2 Executive Overview

This section provides an executive overview of enterprise architecture, the basic concepts of what it is (not just another name for IT Architecture), and why it is needed. It provides a summary of the benefits of establishing an enterprise architecture and adopting TOGAF to achieve that.

**What is an enterprise?**

TOGAF defines “enterprise” as any collection of organizations that has a common set of goals. For example, an enterprise could be a government agency, a whole corporation, a division of a corporation, a single department, or a chain of geographically distant organizations linked together by common ownership.

The term “enterprise” in the context of “enterprise architecture” can be used to denote both an entire enterprise — encompassing all of its information and technology services, processes, and infrastructure — and a specific domain within the enterprise. In both cases, the architecture crosses multiple systems, and multiple functional groups within the enterprise.

Confusion often arises from the evolving nature of the term “enterprise”. An extended enterprise nowadays frequently includes partners, suppliers, and customers. If the goal is to integrate an extended enterprise, then the enterprise comprises the partners, suppliers, and customers, as well as internal business units.

The business operating model concept is useful to determine the nature and scope of the enterprise architecture within an organization. Large corporations and government agencies may comprise multiple enterprises, and may develop and maintain a number of independent enterprise architectures to address each one. However, there is often much in common about the information systems in each enterprise, and there is usually great potential for gain in the

use of a common architecture framework. For example, a common framework can provide a basis for the development of an Architecture Repository for the integration and re-use of models, designs, and baseline data.

**Why do I need an enterprise architecture?**

The purpose of enterprise architecture is to optimize across the enterprise the often fragmented legacy of processes (both manual and automated) into an integrated environment that is responsive to change and supportive of the delivery of the business strategy.

Today's CEOs know that the effective management and exploitation of information through IT is a key factor to business success, and an indispensable means to achieving competitive advantage. An enterprise architecture addresses this need, by providing a strategic context for the evolution of the IT system in response to the constantly changing needs of the business environment.

Furthermore, a good enterprise architecture enables you to achieve the right balance between IT efficiency and business innovation. It allows individual business units to innovate safely in their pursuit of competitive advantage. At the same time, it ensures the needs of the organization for an integrated IT strategy are met, permitting the closest possible synergy across the extended enterprise.

The advantages that result from a good enterprise architecture bring important business benefits, which are clearly visible in the net profit or loss of a company or organization:

- A more efficient business operation:
  - Lower business operation costs
  - More agile organization
  - Business capabilities shared across the organization
  - Lower change management costs
  - More flexible workforce
  - Improved business productivity
- A more efficient IT operation:
  - Lower software development, support, and maintenance costs
  - Increased portability of applications
  - Improved interoperability and easier system and network management
  - Improved ability to address critical enterprise-wide issues like security
  - Easier upgrade and exchange of system components
- Better return on existing investment, reduced risk for future investment:
  - Reduced complexity in the business and IT
  - Maximum return on investment in existing business and IT infrastructure
  - The flexibility to make, buy, or out-source business and IT solutions
  - Reduced risk overall in new investments and their cost of ownership

- Faster, simpler, and cheaper procurement:
  - Buying decisions are simpler, because the information governing procurement is readily available in a coherent plan
  - The procurement process is faster — maximizing procurement speed and flexibility without sacrificing architectural coherence
  - The ability to procure heterogeneous, multi-vendor open systems
  - The ability to secure more economic capabilities

**What specifically would prompt me to develop an enterprise architecture?**

Typically, preparation for business transformation needs or for radical infrastructure changes initiates an enterprise architecture review or development. Often key people identify areas of change required in order for new business goals to be met. Such people are commonly referred to as the "stakeholders" in the change. The role of the architect is to address their concerns by:

- Identifying and refining the requirements that the stakeholders have
- Developing views of the architecture that show how the concerns and requirements are going to be addressed
- Showing the trade-offs that are going to be made in reconciling the potentially conflicting concerns of different stakeholders

Without the enterprise architecture, it is highly unlikely that all the concerns and requirements will be considered and met.

**What is an architecture framework?**

An architecture framework is a foundational structure, or set of structures, which can be used for developing a broad range of different architectures. It should describe a method for designing a target state of the enterprise in terms of a set of building blocks, and for showing how the building blocks fit together. It should contain a set of tools and provide a common vocabulary. It should also include a list of recommended standards and compliant products that can be used to implement the building blocks.

**Why do I need TOGAF as a framework for enterprise architecture?**

TOGAF has been developed through the collaborative efforts of over 300 Architecture Forum member companies from some of the world's leading companies and organizations. Using TOGAF results in enterprise architecture that is consistent, reflects the needs of stakeholders, employs best practice, and gives due consideration both to current requirements and the perceived future needs of the business.

Developing and sustaining an enterprise architecture is a technically complex process which involves many stakeholders and decision processes in the organization. TOGAF plays an important role in standardizing and de-risks the architecture development process. TOGAF provides a best practice framework for adding value, and enables the organization to build workable and economic solutions which address their business issues and needs.

**Who would benefit from using TOGAF?**

Any organization undertaking, or planning to undertake, the development and implementation of an enterprise architecture for the support of business transformation will benefit from use of TOGAF.

Organizations seeking Boundaryless Information Flow can use TOGAF to define and implement the structures and processes to enable access to integrated information within and between enterprises.

Organizations that design and implement enterprise architectures using TOGAF are assured of a design and a procurement specification that can facilitate an open systems implementation, thus enabling the benefits of open systems with reduced risk.