

ITIL® 4 Architecture management | Official Practice Guide

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expand all | collapse all

Cover	Cover
Title Page	iii
Copyright Page	iv
Contents	v
List of figures	vi
List of tables	vii
Welcome	viii
1. About this guide	1
2. General information	4
3. Value streams and processes	12
4. Organizations and people	22
5. Information and technology	28
6. Partners and suppliers	33
7. Capability assessment and development	36
8. Recommendations for practice success	41
Glossary	45
Index	49





# ITIL<sup>®</sup> 4 Architecture Management

Global Best Practice



# Unlocking your potential to achieve more

## Welcome to the ITIL® 4 Architecture Management Official Practice Guide.

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# Contents

› List of figures

› List of tables

› Welcome

› Chapters

## 1. About this guide

ITIL® 4 qualification scheme

## 2. General information

2.1 Purpose and description

2.2 Terms and concepts

2.3 Scope

2.4 Practice success factors

2.5 Key metrics

## 3. Value streams and processes

3.1 Processes

3.2 Value stream contribution

## 4. Organizations and people

4.1 Roles, competencies, and responsibilities

4.2 Organizational structures and teams

## 5. Information and technology

5.1 Information exchange: inputs and outputs

5.2 Automation and tooling

## 6. Partners and suppliers

6.1 Dependencies on third parties

6.2 Support from third parties

## 7. Capability assessment and development

7.1 The practice capability levels

7.2 Capability self-assessment

7.3 Architecture management capability development

## 8. Recommendations for practice success

› Glossary

› Index



# List of figures

- Figure 3.1 Workflow of the architecture governance process
- Figure 3.2 Workflow of the 'development of a target architecture and roadmap' process
- Figure 3.3 Workflow of the 'ongoing architectural control' process
- Figure 7.1 Design of the capability criteria
- Figure 7.2 The capability development steps and levels





# List of tables

- Table 2.1 Activities related to the architecture management practice described in other Official Practice Guides
- Table 2.2 Examples of key metrics for the practice success factors
- Table 3.1 Inputs, activities, and outputs of the architecture governance process
- Table 3.2 Activities of the architecture governance process
- Table 3.3 Inputs, activities, and outputs of the 'development of a target architecture and roadmap' process
- Table 3.4 Activities of the 'development of a target architecture and roadmap' process
- Table 3.5 Inputs, activities, and outputs of the 'ongoing architectural control' process
- Table 3.6 Activities of the 'ongoing architectural control' process
- Table 3.7 Architecture management in key service value streams
- Table 4.1 Competency codes and profiles
- Table 4.2 Roles involved in the architecture management activities
- Table 5.1 Automation solutions for the architecture management practice
- Table 5.2 Automation solutions for architecture management activities
- Table 7.1 Architecture management capability criteria
- Table 7.2 The architecture management capability development steps
- Table 8.1 Recommendations for the success of architecture management





Welcome





## Acknowledgements

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## Information icons

-  **Key message** 
-  **Definition**
-  **Tip**



# Chapter 1

## About this guide

This Official Practice Guide provides practical guidance for the architecture management practice. It is split into seven main sections, covering:

- general information about the practice
- the practice's processes and activities and their roles in the service value chain
- the organizations and people involved in the practice
- the information and technology supporting the practice
- considerations for partners and suppliers for the practice
- information on assessing and developing the capability of the practice
- recommendations for succeeding in the practice.

### ITIL® 4 qualification scheme

Selected content from this guide is examinable as a part of the following syllabi:

- **ITIL® 4 Specialist:** High-Velocity IT
- **ITIL® 4 Leader:** Digital and IT Strategy

Please refer to the respective syllabus documents for details.



## Chapter 2

### General information

#### 2.1 Purpose and description



##### Key message

The purpose of the architecture management practice is to provide an understanding of all the different elements that make up an organization and how those elements interrelate, enabling the organization to effectively achieve its current and future objectives. It provides the principles, standards, and tools that enable an organization to manage complex change in a structured and agile way.

The architecture management practice is instrumental in steering decision-making processes towards the strategic evolution of an organization, particularly in response to rapidly changing and complex disruptive forces. It enables the organization to evolve from its current architecture to the desired architecture; it also supports ongoing course corrections as the organization's strategy and environment change.

Architecture management is often called 'Enterprise Architecture' in various sources, where the term 'enterprise' is equivalent to the ITIL 4 definition of 'organization'. In this context, it is expected that the architecture management practice will be built upon a synergy of methods, standards, and best practices such as TOGAF, PRINCE2, COBIT, IT4IT, and others, including relevant ITIL® 4 Official Books.

A comprehensive architecture management practice applies to several architecture domains:

- **Business architecture:** a formalized description of how an organization uses its resources for realizing its strategy and objectives. Business architecture is defined by business strategy, governance, and organization.
- **Product and service offering architecture:** a formalized description of an organization's products and services linked to the needs of consumer groups. This architecture includes relationships between products, services, and service offerings.
- **Application architecture:** a formalized description of an organization's applications, its management, and interactions. Application architecture includes definition of the relationship between data, applications, and the core business processes.
- **Data architecture:** a formalized description of the organization's logical and physical data assets and data management resources.
- **Technology architecture:** a formalized description of an organization's technology infrastructure, including information, operational and communication technologies, relationships, and the way it supports the organization's products and services.

Each domain can be further detailed, or additional domains may be specified by an organization; for example, security architecture or software architecture. Regardless of the classification, it's essential to maintain a clear, simple, and relevant overview of the big picture and the interconnections between these domains, ensuring alignment with the organization's vision.

Different types of architecture are required to address stakeholder needs at different levels of the organization. The scope of the practice is defined by an organization's position, vision, and strategy. For example, the architecture management practice of an internal IT service provider is likely to focus on the architecture of its products, services, information systems, and technology. In other cases, the lower levels of technology architecture might be excluded from the scope, if third parties provide the infrastructure and platform for the organization. Some architectures will include a detailed description of specific stakeholder needs; others will be more general and provide only a big picture.

Although the level of detail may vary for different architecture domains, the architecture management practice should ensure consistent holistic approach at all levels of the organization, as well as at all architecture domains. This consistency is achieved by the use of architecture principles and standards.

The architecture management practice should consider all the components of the organization's service value system and resources of all four dimensions of service management, which are:

- organization and people
- information and technology
- processes and value streams
- suppliers and partners.

The architecture management practice ensures that:

- the organization's current architecture is understood, its components are presented as a holistic environment, and the architecture at all levels is mapped to the organization's strategy and relevant external regulations
- the target organization's architecture is identified and agreed
- the organization's architecture is continually optimized to achieve the target architecture.

An effective architecture management practice can bring important benefits to the service provider and its service consumers.

Benefits for the service provider include:

- enhanced alignment between service offerings, applications, and infrastructure
- flexible evolution of service offerings in response to changing technology and business needs
- balance between transformation programs and ongoing operations
- improved effectiveness and efficiency of business operations, including costs optimization and workforce flexibility
- better return on investment
- procurement and sourcing optimization
- improved interoperability and information sharing
- optimization of organization's compliance to relevant regulations.

Benefits for the service consumer include:

- enhanced alignment between business needs and IT services
- better understanding of service offerings and opportunities enabled by service provider's service portfolio
- better return on investment in IT services
- better management of IT-related risks.

#### 2.2 Terms and concepts

The architecture management practice should be tailored to align with organization's specific needs, vision, and strategy. Although the practice applies to different architecture domains, it is important to recognize that these architectures do not exist in isolation. There are several key concepts that should be considered when implementing the architecture management practice.

##### 2.2.1 Architecture principles

Best practice is to agree, adopt, and follow a set of meaningful guiding principles, which can be used as an alignment tool or a 'compass' for all those involved in the architecture management.

Principles are a set of fundamental beliefs, norms, rules, and guidelines that are accepted as truth and can be used as a basis for architecture management at any moment and with any level of uncertainty.

Depending on the organization, principles may be chosen within different domains and levels. The common approach is to consider at least two groups of principles when developing and utilizing the architecture:

- **Organizational principles:** a foundation for decision-making across an organization in pursuit of its vision. Specific principles can be defined for individual functional units, such as HR, procurement, and others. These principles will impact architecture development related to each unit.
- **Architecture principles:** a set of norms and rules for the use and deployment of all resources and assets across an organization. A separate set of principles can be defined for each architecture domain, such as data architecture principles, application architecture principles, and others.

Architecture principles are typically developed by the architects in collaboration with stakeholders and approved by the architecture board. In absence of such a board in an organization, approval is granted by the leadership team. There is no need to start from scratch when choosing which principles to follow. There are best practices available to help organizations looking for high-level guidance to manage their architecture at all levels, including the ITIL 4 Guiding Principles, TOGAF recommendations for developing the principles, and others.

##### 2.2.2 Architecture management stakeholders

Stakeholder management is an important aspect of the architecture management practice. The stakeholders may include product and service owners, employees, third-party suppliers, competitors, regulators, unions, communities, and others.

The key stakeholders should be identified and the relationship with them understood and managed.

To gain full support from stakeholders and to provide value to them it is necessary to present information in a form that they will relate to. Different ways to do this are described in the ITIL® 4 Drive Stakeholder Value and ITIL® 4 Business Relationship Management Official Books and in the ITIL® 4 Relationship Management Official Practice Guide.

##### 2.2.3 Architecture patterns

Given the diverse and complex nature of all architecture domains, it is essential to develop and utilize repeatable and scalable solutions whenever possible. A proven solution to a problem within a specific context is often referred to as a 'pattern'.

The purpose of patterns within architecture management is to establish a knowledge base that assists relevant stakeholders in resolving recurring problems related to architecture that are encountered during the execution of the organization's service value streams.

Each pattern may consist of a document or a set of documents that provide information about reusable solutions, successful practices, useful tools, and potential trade-offs. Architecture pattern catalogues created and regularly updated by international professional communities serve as repositories for these patterns. Architects may adopt and adapt available patterns or develop their own to address the needs of the organization.

The context of a service includes its purpose and desired outcomes, who the stakeholders are, the impact of the service not delivered, and the environment in which the service is delivered and consumed. The context will also include business processes and value streams supported by the service.

##### 2.2.4 Architecture and interoperability

The ability of systems, applications, services, or any other architectural component to function together in a coordinated way, sharing or exchanging information, is known as interoperability. An important architectural requirement, especially in large organizations or within complex partnerships, involves defining the extent of interoperability that should be present and the way it should be implemented.

There are a few ways to plan for interoperability and the goal is to identify one that is relevant for the organization and its external partners. It is essential that all involved parties use the same definition and principles.

#### 2.3 Scope

The scope of the architecture management practice includes:

- understanding and describing the organization's current architecture
- defining the target organization's architecture and agreeing it with the relevant stakeholders
- enabling continual optimization of the organization to meet the target architecture
- ensuring continual oversight of the ongoing changes to ensure they are aligned with the agreed target architecture.

There are several activities and areas of responsibility that are not included in the architecture management practice, although they are still closely related to it. These are listed in Table 2.1, along with references to the Official Practice Guides in which they are addressed.

It is important to remember that the ITIL practices are merely collections of resources and capabilities to use in the context of value streams; they should be combined as necessary, depending on the situation.

**Table 2.1 Activities related to the architecture management practice described in other Official Practice Guides**

Activity	Official Practice Guide
Design of products, services, technologies, and other architecture components	Service design
Implementation of the architecture road map	Project management Change enablement Organizational change management
Investment decision and authorization of architecture options	Strategy management Portfolio management
Definition of the organization's direction and objectives	Strategy management
Service configuration data management and detailed mapping of configuration items and assets	Service configuration management IT asset management

#### 2.4 Practice success factors



##### Practice success factor (PSF)

A complex functional component of a practice that is required for the practice to fulfil its purpose.

A PSF is more than a task or activity; it includes components from all four dimensions of service management. The nature of the activities and resources of PSFs within a practice may differ, but together they ensure that the practice is effective.

The architecture management practice includes the following PSFs:

- ensuring that the organization's strategy is supported with a target architecture
- ensuring that the organization's architecture is continually evolving to the target state.

##### 2.4.1 Ensuring that the organization's strategy is supported with a target architecture

The organization's architecture should be optimized to achieve and support its strategy. This will require a target architecture model.

To develop an effective and realistic target architecture, architects need to understand the following:

- the organization's strategy and its current performance
- the organization's current architecture, benefits, and constraints
- major pain points and its mapping to the architecture
- the organization's portfolios and ongoing developments
- environmental factors and trends
- technology trends, risks, and opportunities
- other relevant trends and factors.

Analysis of these areas will lead to an understanding of the current and desired state of the organization from the architecture perspective. Current and target architecture models can be developed based on this. The effectiveness of the architecture can be expressed in some of the following characteristics, depending on the organization's strategy:

- scalability
- cost-effectiveness
- compatibility with other organizations
- compliance to regulations
- agility
- sustainability
- security.

This is not a definitive list, other objectives can be created to ensure that the architecture is effective. Some or all the objectives can be described as architecture principles.

As the strategies of organizations are likely to continually evolve, architecture modelling should not be an isolated exercise. The current architecture model should be updated as the components change, and the target architecture model should be reviewed as the strategy changes. These updates initiate a review of an architecture road map (see section 2.4.2).

Architecture analysis and target architecture planning are performed in close conjunction with other practices (see section 2.3 for a list of these practices). It is important to ensure that the architecture patterns are correct and realistic, and that the understanding of the current and target architectures is shared among stakeholders. Realistic architecture planning is based on a good understanding of the current architecture, including legacy systems, constraints, vital business functions, and behaviour patterns, adopted by internal and external stakeholders. It is also important to take other requirements and constraints into account, such as budgets, legislation, and so on. Finally, good knowledge of the technology landscape, including emerging technologies and industry trends, is important.

As well as a description of the target architecture, the road map should include recommendations and requirements for taxonomy, standards, guidelines, procedures, templates, and tools, which are to be used in architecturally important initiatives, such as product and service design, changes, projects, and so on. This includes integrating the recommended architecture controls into the relevant practices and value streams, to ensure that the activities of the organization adhere to the agreed development direction.

##### 2.4.2 Ensuring that the organization's architecture is continually evolving to the target state

To ensure that an organization is evolving to the target architecture, an architecture road map is created. The road map is a collection of initiatives designed to change from the current architecture to the target architecture. Where appropriate, these initiatives can be managed as programmes or projects. Realizing the architectural changes can involve several stakeholders and practices, depending on the nature of the changes. The architecture management practice ensures that the implemented changes follow the agreed road map and support the organization's evolution to its target architecture.



##### Key message

The transition from the current architecture to the target architecture is rarely a revolution. Rather, it is an evolution enabled by a set of architectural principles, standards, and guidelines that the organization agrees to follow. Some legacy solutions may coexist with newer solutions for a significant time.

Changes from the current architecture to the target architecture are always subject to portfolio decisions and careful prioritization. The architecture management practice is used to define the target architecture, and to maintain the agreed direction and pace of the architectural evolution.

Another important aspect of the architecture management practice activities is to ensure that the changes made to the organization's resources, products, and services support the architecture's evolution by following the recommended architectural taxonomy, standards, guidelines, procedures, templates, and tools. They also should not contradict the architecture's requirements and principles. This implies that the architecture management practice is involved in every service value stream that includes the introduction of new components, new third-party services, or other changes that affect the architecture.

#### 2.5 Key metrics

The key metrics for the architecture management practice are mapped to its PSFs. They can be used as KPIs in the context of value streams to assess the contribution of the practice to the effectiveness and efficiency of those value streams. The key metrics are listed in Table 2.2.

The effectiveness and performance of the ITIL practices should be assessed within the context of the value streams to which the practices contribute. The context of the business and the value streams is important to define what is considered good or not so good performance of a practice. This is why this Official Practice Guide cannot recommend universal key performance indicators for architecture management: the target values for each metric can only be defined in the organization's context.

**Table 2.2 Examples of key metrics for the practice success factors**

Practice success factors	Key metrics
Ensuring that the organization's strategy is supported with a target architecture	Fulfillment of the agreed requirements for the target architecture Number and impact of architectural constraints limiting realization of the organization's strategy Completeness and quality of the target architecture, based on internal and independent assessments
Ensuring that the organization's architecture is continually evolving to the target state	Number and impact of architecturally significant changes that have not been assessed for conformance to the agreed architecture The number and impact of implemented projects and changes that did not follow the agreed target architecture Progress in fulfilling the architecture road map

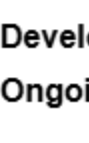


# Chapter 3

## Value streams and processes

### 3.1 Processes

Each practice may include one or more processes and activities that may be necessary to fulfil the purpose of that practice.

 **Process**

A set of interrelated or interacting activities that transform inputs into outputs. A process takes one or more defined inputs and turns them into defined outputs. Processes define the sequence of actions and their dependencies.

Architecture management activities form three processes:

- **Architecture governance:** this process is focused on ensuring that organization's architecture vision and approach are aligned with the organization's strategy and requirements.
- **Development of a target architecture and roadmap:** this process is focused on continual improvement of the target architecture and its implementation.
- **Ongoing architectural control:** this process ensures that the agreed architectural principles and standards are implemented and maintained across the organization.

#### 3.1.1 Architecture governance

This process includes the activities listed in Table 3.1 and transforms the inputs into outputs.

Table 3.1 Inputs, activities, and outputs of the architecture governance process

Key inputs	Activities	Key outputs
Organization's principles, policies, and vision Organizational strategy Environmental factors Organizational structure Budget requirements Product and service portfolio Programme and project portfolio Customer portfolio Architecture review reports Audit reports	Analyse the organization and requirements Develop and agree architecture vision Review the organization's architecture	Architecture vision Architecture principles and requirements Architecture review reports

Figure 3.1 shows a workflow diagram of the process.

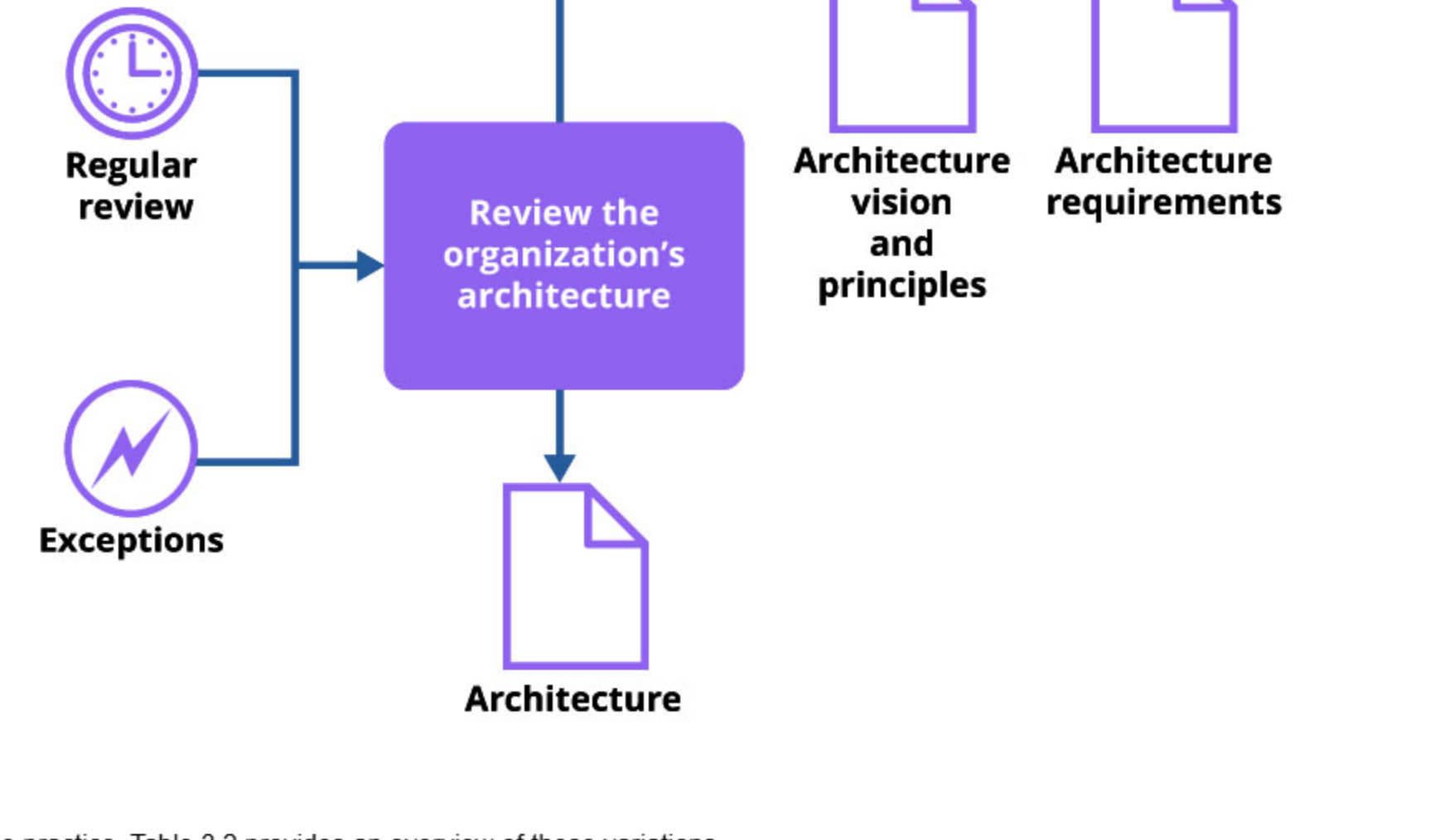


Figure 3.1 Workflow of the architecture governance process

This process may vary, depending on the agree scope of the practice. Table 3.2 provides an overview of these variations.

Table 3.2 Activities of the architecture governance process

Activity	'Full stack' architecture management	IT architecture management
Analyse the organization and requirements	Executive leaders of the organization define the scope of the architecture management activities and appoint an architecture board	CIO, IT architects, product owners, and business analysts review the available information regarding the organization's vision, strategy, and requirements, and appoint an IT architecture board
Develop and agree architecture vision	Architecture board develops architecture vision for the organization and agrees the vision with the executive leaders	IT architecture board develops the architecture vision for products and service offerings, data IT systems, and supporting technology and agrees the vision with CIO
Review the organization's architecture	Based on periodic architecture review and audit reports, or on relevant exception reports, executive leaders of the organization review the effectiveness of the architecture and architecture management practice and provide input to the 'analyse the organization and requirements' activity	Based on periodic architecture review and audit reports, or on relevant exception reports, CIO, IT architects, product owners, and business analysts review the effectiveness of the architecture and architecture management practice and provide input to the 'analyse the organization and requirements' activity

#### 3.1.2 Development of a target architecture and roadmap

This process includes the activities listed in Table 3.3 and transforms the inputs into outputs.

Table 3.3 Inputs, activities, and outputs of the 'development of a target architecture and roadmap' process

Key inputs	Activities	Key outputs
Architecture vision and principles Architecture requirements Product and service portfolio Programme and project portfolio Customer portfolio Value stream maps Service configuration information IT Asset register Third-party contracts External architecture patterns	Identify requirements Document current architecture Develop target architecture Design standards, frameworks, and guidelines Design, agree, and communicate architecture roadmap	Architectural assessment report Current architecture model Target architecture model Architecture controls, frameworks, and guidelines Agreed architecture roadmap Internal architecture patterns

Figure 3.2 shows a workflow diagram of the process.

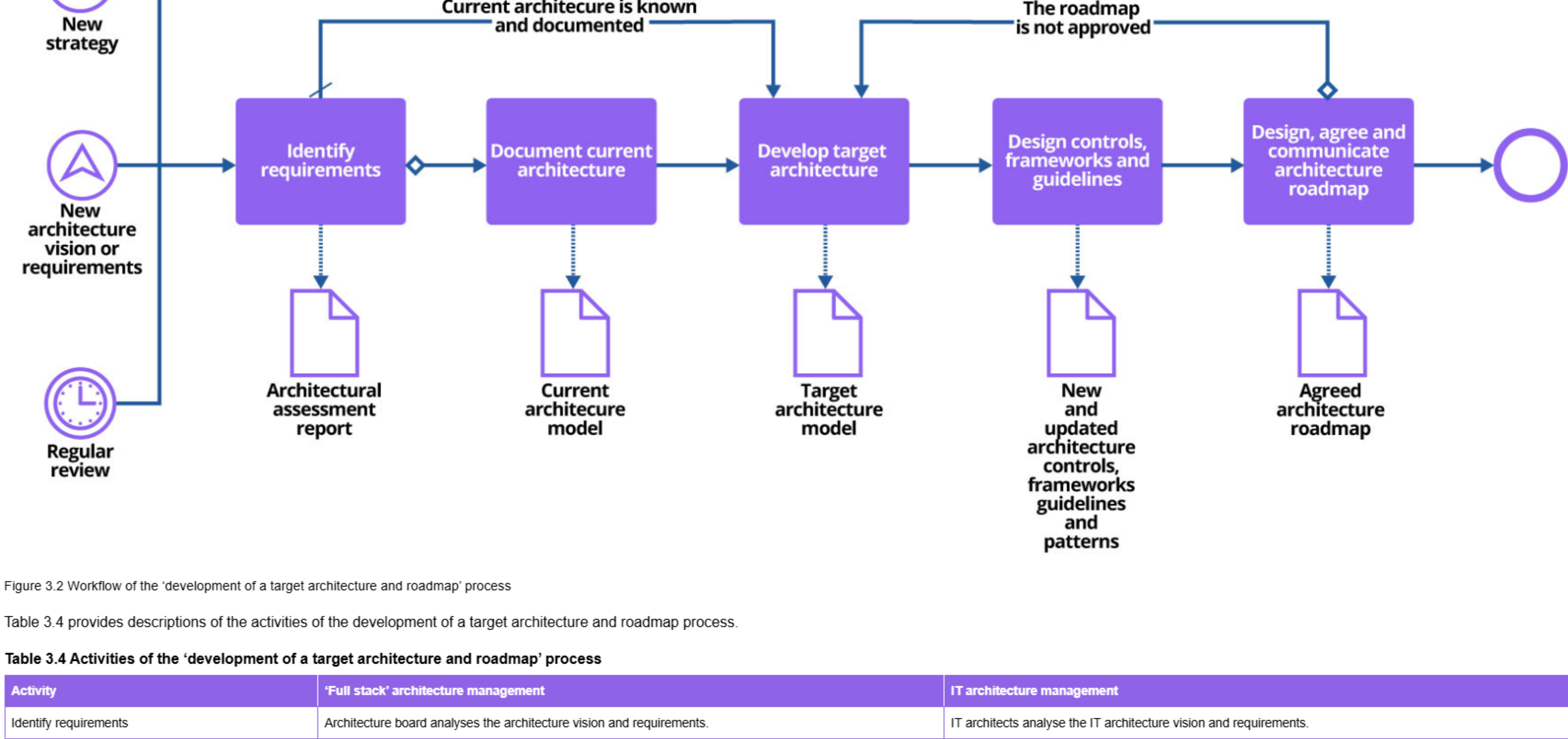


Figure 3.2 Workflow of the 'development of a target architecture and roadmap' process

Table 3.4 provides descriptions of the activities of the development of a target architecture and roadmap process.

Table 3.4 Activities of the 'development of a target architecture and roadmap' process

Activity	'Full stack' architecture management	IT architecture management
Identify requirements	Architecture board analyses the architecture vision and requirements.	IT architects analyse the IT architecture vision and requirements.
Document current architecture	If the current architecture in the scope of requirements has not been documented or is not up-to-date, architects explore and document current architecture at all levels, from business architecture to technology infrastructure.	If current IT architecture in the scope of requirements has not been documented or is not up-to-date, architects explore and document current IT architecture.
Develop target architecture	Architects, business analysts, relationship managers, and product owners review the current architecture to identify constraints and misalignment with the agreed architecture vision and develop a model for target architecture at all levels, ensuring consistency between the levels.	Architects, business analysts, and product owners review the current architecture to identify constraints and misalignment with the agreed architecture vision and develop a model for target IT architecture.
Design standards, frameworks, and guidelines	Based on the target architecture, architects develop supporting standards, guidelines, procedures, templates, and tools to ensure effective integration in the relevant practices and value streams. These are discussed and agreed with stakeholders, including practice owners, product owners, and others.	Based on the target IT architecture, IT architects develop supporting standards, guidelines, procedures, templates, and tools to ensure effective integration into the relevant practices and value streams. These are discussed and agreed with stakeholders, including practice owners, product owners, and others.
Design, agree, and communicate architecture roadmap	Architects identify the most critical gaps between the target and current architectures; they then propose an approach to migration and to ongoing architecture control. The roadmap includes controls ensuring adherence to the agreed architecture throughout the organization. This work is supported by product owners, risk managers, financial managers, and other relevant leaders and experts.  The proposed architecture roadmap is discussed and approved by the executive leaders. If not approved, the roadmap is returned to one of the previous steps.  Approved roadmap together with the supporting standards, frameworks, guidelines, and controls are communicated for a detailed planning and execution to the relevant teams, including programme and project managers, HR, portfolio and finance, product owners, and so on.	Architects identify the most critical gaps between the target and current architectures. They then propose an approach to migration and to ongoing architecture control. The roadmap includes controls ensuring adherence to the agreed architecture throughout the organization. This work is supported by product owners, risk managers, financial managers, and other relevant experts.  The proposed IT architecture roadmap is discussed with and approved by CIO. If it is not approved, the roadmap is returned to one of the previous steps.  Approved roadmap together with supporting standards, frameworks, guidelines, and controls are communicated for detailed planning and execution to relevant teams, including programme and project managers, portfolio and finance, product owners, and so on.

As Table 3.4 shows, the process applies to different levels of architecture and different circumstances, from review of a specific infrastructure architecture triggered by technology or vendor changes to a comprehensive review of service offering and business process architectures triggered by changes in business strategy.

#### 3.1.3 Ongoing architectural control

This process includes the activities listed in Table 3.5 and transforms the inputs into outputs.

Table 3.5 Inputs, activities, and outputs of the 'ongoing architectural control' process

Key inputs	Activities	Key outputs
Agreed architecture roadmap Change backlog Project plans Product backlogs Continual improvement register Service configuration data Asset register Third-party contracts Product and service portfolio	Identify architecturally significant plans and events Check for conformance to the target architecture Escalate non-conformance Review progress against the architecture roadmap	Architecture (non-)conformance reports Architecture review reports

Figure 3.3 shows a workflow diagram of the process.

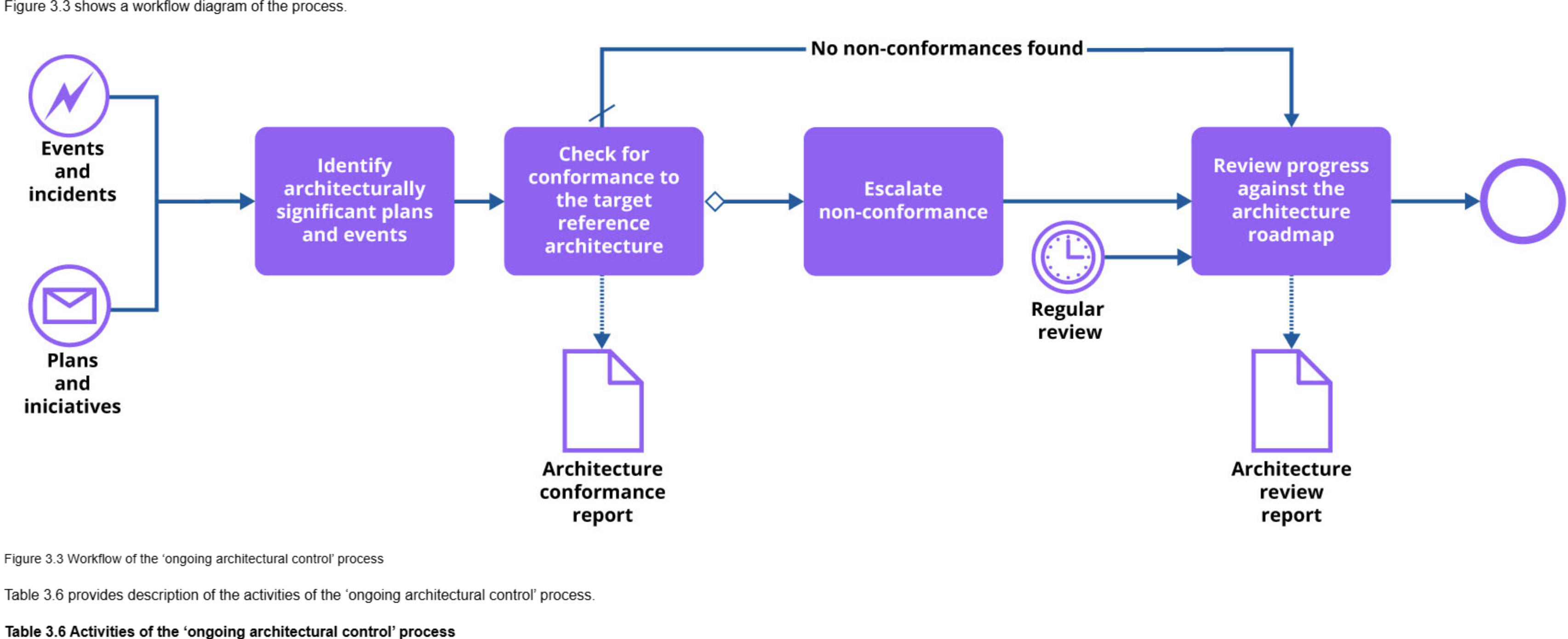


Figure 3.3 Workflow of the 'ongoing architectural control' process

Table 3.6 provides description of the activities of the 'ongoing architectural control' process.

Table 3.6 Activities of the 'ongoing architectural control' process

Activity	Description
Identify architecturally significant plans and events	When an architecturally significant change, project, or improvement initiative is being planned, an architect is included in the approval workflow. Identification of the architectural significance is performed by the role responsible for planning, according to the agreed architecture controls. This activity is applicable to all architecturally significant initiatives, including those specifically created as part of the architecture roadmap.  When an architecturally significant event is identified (a design error, incorrect implementation, or a change bypassing an architecture control), it is reported to an architect for review. Identification of these events can be made by product owners, problem managers, risk managers, auditors, and others.
Check for conformance to the target architecture	An architect reviews the proposed initiatives and reported events to assess conformance to the agreed target architecture model.  Initiatives that conform to the target architecture (including those triggered by the architecture roadmap), are approved and their processing continues in the respective value stream.  Events that conform to the target architecture are approved and their processing continues in the respective value stream. If the agreed approval procedure has been bypassed, the architect reports this to the relevant authority (product owner, project manager, change manager, continual improvement manager, or others).  A (non-)conformance report is produced and communicated to relevant stakeholders. It also serves as an input to the 'architecture governance' process.
Escalate non-conformance	Identified non-conformances are escalated to the relevant authorities (product owner, project manager, change authority, continual improvement manager, CIO, architecture board, or others).  Architects provide the necessary information to identify alternative solutions that conform to the target architecture.
Review progress against the architecture roadmap	After significant changes and following the agreed intervals, architecture board or responsible architects assesses progress towards the target architecture. This assessment includes planned roadmap initiatives and discovered deviations from the roadmap and the target architecture.  A progress report is produced by the architects that explains the implementation and maintenance of the architecture roadmap. The report is communicated to the relevant stakeholders and serves as an input to the 'architecture governance' process.

### 3.2 Value stream contribution

#### 3.2.1 Service value streams

To perform certain tasks or respond to particular situations, organizations create service value streams. These are specific combinations of activities and practices, and each one is designed for a particular scenario. Once designed, value streams should be subject to continual improvement.

 **Value stream**

A series of steps an organization undertakes to create and deliver products and services to consumers.

In practice, however, many organizations identify the value stream concept after having worked for a while (sometimes for years) without the value streams being managed, mapped, or understood. This means that when the importance of the concept becomes clear, the first step is to understand and map the 'as is' situation and the true flows of work, then analyse them in order to identify and eliminate the non-value-adding activities and other forms of waste.

Identifying and understanding existing value streams is critical to improving an organization's performance. Mapping activities in the form of value streams allows the organization to understand what it delivers and how, and to make continual improvements to its services. Combined, an organization's value streams form an operating model which can be used to understand and improve how the organization creates value for the stakeholders.

Many organizations follow best practice recommendations for various service management practices, such as incident management, change enablement, software development, and many others. However, the practices are often adopted and organized in a siloed, isolated manner, just as they are presented in service management bodies of knowledge. In reality, a flow of work required to create or restore value, for a customer or another stakeholder, is almost never limited to one practice.

#### 3.2.2 Architecture management in service value streams

Service value streams benefit from the 'big picture' provided by architecture management. Understanding of the current and target architecture supports planning and implementation at all levels of service management, from strategy generation to incident resolution.

The architecture management practice provides all value streams of an organization with architectural principles, standards, and requirements. Plans and events managed in the value streams are subject to the ongoing architectural control.

Table 3.7 describes how the key service value streams involve architecture management.

Table 3.7 Architecture management in key service value streams

Value stream	The role of architecture management
Creation of a new or changed product or service	Support of decision-making by providing architectural information Architectural assessment of product and service requirements Architectural assessment and control of planned and ongoing changes to products and services
Service delivery	Support of decision-making by providing architectural information
Product and service support	Support of decision-making by providing architectural information Architectural assessment and control of changes, incidents, problems, and events
Product and service operations	Support of decision-making by providing architectural information Architectural assessment and control of changes, incidents, problems, and events
Continual improvement of products and services	Support of decision-making by providing architectural information Architectural assessment of product and service requirements Architectural assessment and control of planned and ongoing improvement initiatives

The effectiveness and efficiency of many of the value streams depend on architectural information. The architecture management practice is therefore critical for many service value streams.

#### 3.2.3 Analysing a service value stream

##### 3.2.3.1 The key steps of a service value stream analysis

The following are some simple and practical recommendations for service value stream analysis and mapping.

1. **Identify the scope of the value stream analysis:** this can be mapped to a particular product or service or applied to most or all of them. However, service value streams may differ for different customers; for example, incidents can be solved and communicated differently for internal and external customers, B2B and B2C products, or services based on products developed in-house or sourced externally. Interactions with users and customers during incident handling and resolution may follow different models in each of these scenarios.
2. **Define the purpose of the value stream from the business standpoint:** make sure the stakeholder's concerns are clearly understood, since they are the ones defining value. The definitions of service quality should be aligned with the organization's strategy and support value creation for the organization and other stakeholders.
3. **Do the service value stream walk:** walk through or directly experience the steps and information flow as they go in practice (consider the Lean technique of Gemba walk):
  - a. **Identify the workflow steps**
  - b. **Collect data as you walk**
  - c. **Evaluate the workflow steps:** typically, the criteria for evaluation are:
    - value for the stakeholder (does the step add value for the business stakeholder? Does it support the relationship approach?)
    - effectiveness or performance (is the step performed well?)
    - availability (are required resources available to execute the step?)
    - capacity (are the required resources enough?)
    - flexibility (are the required resources interchangeable within the step?)
  - d. **Map the activities and the information flows:** in an ideal situation, the flow goes smoothly without delays and pauses, there are no disconnections between the steps, and the workload is level with minimal (and agreed) variation.
4. **Create and review the timeline and resource level:** map out process times and lead times for resources and workload for the workflow steps.
5. **Reflect on the value stream map (VSM):** identify factors that might not have been entirely apparent at first. The information collected is used at this step to find the waste. Some commonly performed activities may deviate from the agreed architectures and undermine value creation.
6. **Create a 'to be' VSM:** this informs and drives improvement. The value stream should be considered holistically to ensure end-to-end efficiency and value creation, not just local improvements.
7. **Using the 'to be' VSM, plan improvements:** refer to the ITIL® 4 Continual Improvement Official Practice Guide for a practical improvement model. Include relationship models in the continual improvement plan for the value streams.

##### 3.2.3.2 Architecture management considerations in a service value stream analysis

To ensure that relevant architecture management activities and outputs are included in service value streams, the following steps can be added to the above recommendations.

- At the scoping step (1), identify internal and external stakeholders related to the value stream. What are their architecture requirements? Are they involved in architecture assessment, planning, and review? Do they use architectural data and reports? Are these stakeholders satisfied?
- During the service value stream walk (3a), identify the practices involved at every step and how architectural information is used. Are value stream activities architecturally significant? Do decisions made in the value stream require architectural information, if yes, is it available and sufficient? Are there situations where required architectural information is unavailable or insufficient?
- During the workflow steps evaluation (3c), evaluate the architecture management impact on the value stream's effectiveness and efficiency. Special attention should be paid to steps where required architectural information is unavailable or insufficient. Is ongoing architectural control relevant to the value stream? Is it effective? Does it create delays or bottlenecks in the value stream? Does architectural information effectively support the flow of the value stream?
- At the reflection and planning steps (4-5), ensure that architectural information and reports are available to the relevant stakeholders throughout the value stream and their provision and use are optimized for business value.
- Include the creation or update of the architecture principles, standards, requirements, competencies, and reports in the value stream improvement plans (6).



# Chapter 4

## Organizations and people

### 4.1 Roles, competencies, and responsibilities

#### 4.1.1 Architect role

The key practice-specific role is architect. This role is usually specialized, such as a business (or enterprise) architect, IT architect, data architect, or solution architect, depending on the practice scope. As described in Table 4.2, most practice activities are performed or managed by architects.

- The key competencies of an architect include:
- understanding the business strategy, business model, and operating model of the organization and the service consumers' organizations
  - understanding the environments in which the organization operates
  - knowledge of technologies used by the organization and of developing technologies available to the organization
  - knowledge of the organization's portfolios: resource, product and service, customer
  - knowledge of the organization's value streams and practices
  - communication skills to maintain the dialog between technical and non-technical teams
  - making and guiding decisions
  - problem analysis and problem solving
  - expertise in architecture management frameworks, such as Zachman Framework™ and TOGAF®
  - expertise in relevant solution architecture frameworks, such as AWS, SOA, EMC, and so on.

The competence profile (see Table 4.1) of an architect is TMCLA. Architects are experts in the organization's resources and architecture management methods. However, communication and leadership skills are also important.

The responsibilities of architects within an organization may vary depending on the scope of the practice. Business (enterprise) architects are key contributors to an organization's strategic planning and business development. They work across different levels within the organization to translate business strategy into business change and technical solutions. This role supports other architects and develops an architecture community within the organization.

Solution architects are focused on the architecture of specific products or systems.

It is not unusual to find dedicated job roles to fulfil the architect roles. However, in smaller organizations the solution architect role is sometimes performed by product owners, and the business architect role may be performed by executive leaders, usually on an ad hoc basis.

#### 4.1.2 Architecture board role

An architecture board is a team comprising key stakeholders in the architecture. This team is responsible for defining the target architecture and architecture principles and standards. The architecture board ensures implementation of the agreed architecture roadmap.

The scope of architecture board can vary based on the organization's size, structure, and business model.

- The key responsibilities of an architecture board include:
- defining and ensuring relevant application of the architecture principles as the basis for all decision-making related to architecture
  - ensuring and controlling consistency across architecture domains and levels
  - ensuring flexibility and agility of architecture to support complex environments and changing needs
  - controlling architecture conformance
  - ensuring effective implementation and continual improvement of the architecture management practice.

Although it is important to ensure that representatives of all organizational domains participate in decisions about architecture management, it is recommended to keep the architecture board to a reasonable size.

The competence profile of an architecture board member is MLCAT.

#### 4.1.3 Architecture management roles in an organization

The ITIL practices do not describe the practice management roles such as practice owner, practice lead, or practice coach. They focus instead on the specialist roles that are specific to each practice. The structure and naming of each role may differ from organization to organization, so any roles defined in ITIL should not be treated as mandatory or even recommended. Remember, roles are not job titles. One person can take on multiple roles and one role can be assigned to multiple people.

Roles are described in the context of processes and activities. Each role is characterized with a competency profile based on the model shown in Table 4.1.

Table 4.1 Competency codes and profiles

Competency code	Competency profile (activities and skills)
L	<b>Leader:</b> decision-making, delegating, overseeing other activities, providing incentives and motivation, and evaluating outcomes
A	<b>Administrator:</b> assigning and prioritizing tasks, record-keeping, ongoing reporting, and initiating basic improvements
C	<b>Coordinator/communicator:</b> coordinating multiple parties, maintaining communication between stakeholders, and running awareness campaigns
M	<b>Methods and techniques expert:</b> designing and implementing work techniques, documenting procedures, consulting on processes, work analysis, and continual improvement
T	<b>Technical expert:</b> providing technical (subject matter) expertise and conducting expertise-based assignments

The roles which are typically involved in the architecture management activities are listed in Table 4.2, together with the associated competency profiles.

Table 4.2 Roles involved in the architecture management activities

Activity	Responsible roles	Competency profile	Specific skills
Architecture governance			
Analyse the organization and requirements	Executive leaders Architecture board Architects Product owners Service owners	TCA	Good knowledge of the organization, its environment, portfolios, products, resources, and customers Understanding of architecture management frameworks
Develop and agree architecture vision	Executive leaders Architecture board Architects Product owners Service owners	TLMC	Good knowledge of the organization, its environment, portfolios, products, resources, and customers Strategic thinking Leadership skills
Review the organization's architecture	Executive leaders Architecture board Architects Product owners Service owners	TCA	Good knowledge of the organization, its environment, portfolios, products, resources, and customers Understanding of architecture management frameworks Strategic thinking
Development of a target architecture and roadmap			
Identify requirements	Architects Product owners Resource managers	TCA	Analytical skills Good understanding of the architecture vision Good understanding of the current architecture
Document current architecture	Architects Product owners Resource managers	TMA	Good practical knowledge of the architecture's management frameworks Good understanding of the organization's resources at the documented architecture level Analytical skills
Develop target architecture	Architecture board Architects Product owners Resource managers	TMC	Analytical skills Good understanding of the architecture vision Good understanding of the current architecture's strengths and weaknesses Good understanding of external opportunities and threats
Design standards, frameworks, and guidelines	Architecture board Architects Product owners Resource managers	TMC	Analytical skills Good understanding of the architecture vision Good understanding of the current architecture's strengths and weaknesses Good understanding of external opportunities and threats
Design, agree, and communicate architecture roadmap	Architecture board Architects Product owners Resource managers	MTCL	Good understanding of organization's capacity and constraints, understanding of business priorities. Good understanding of organization's value streams and practices affecting the architecture Communication and negotiation skills, presentation skills, leadership skills
Ongoing architectural control			
Identify architecturally significant plans and events	Architects Product owners Service owners Change authorities Project managers Continual improvement managers Risk managers Internal auditors	T	Good understanding of the architectural impact of plans and events
Check for conformance to the target architecture	Architects Product owners Architecture board	TMC	Good knowledge of the agreed target architecture, good understanding of the agreed architecture roadmap, including controls Analytical skills Communication skills
Escalate non-conformance	Architects Product owners Architecture board	CA	Good knowledge of the agreed controls Good communication skills
Review progress against the architecture roadmap	Architects Product owners Architecture board	AC	Good knowledge of the architecture roadmap Analytical and communication skills

### 4.2 Organizational structures and teams

To fulfil the architecture management practice's purpose, appropriate organizational structure should be designed to support the practice activities. While some organizations may benefit from teams fully dedicated to architecture management, others might integrate architecture with different roles on a permanent or ad hoc basis. This depends on the organization's needs, business model, and strategy. Regardless of the chosen approach, roles should be clearly defined and assigned to the people who demonstrate relevant competences.

The architecture board member role is usually integrated with other roles. Typically, architecture board consists of representatives from different organizational levels, such as an organization's leaders, business team leaders, domain experts, product and service owners, service designers, risk managers, portfolio managers, HR managers, and financial managers.

The architecture board usually reports to the executive leadership team; this ensures that the board has enough authority.



# Chapter 5

## Information and technology

### 5.1 Information exchange: inputs and outputs

The effectiveness of the architecture management practice is based on the quality of the information used. This includes, but is not limited to, information about:

- the organization's strategy
- the organization's environment, key stakeholders
- the organization's portfolios: resources, products and services, customers
- service configuration and IT asset information
- change schedule
- programme and project portfolio
- continual improvement register
- organizational structure
- industry standards and regulations
- international architecture community body of knowledge
- technology trends.

This information may take various forms. The key inputs and outputs of the practice are listed in chapter 3.

### 5.2 Automation and tooling

The architecture management practice can significantly benefit from automation. Where this is possible and effective, it may involve the solutions outlined in Tables 5.1 and 5.2.

Table 5.1 Automation solutions for the architecture management practice

Automation tools	Application in architecture management
Enterprise architecture management tools	Building a strategic vision for architectural evolution Provide comprehensive visualization of all architecture domains Model architecture components to design and optimize organization's architecture, including modelling data security needs Provide a framework to ensure alignment between organizational objectives and technology initiatives Streamlining data collection processes Tracking business metrics that integrate with organizational performance Orchestrating tech mergers and acquisitions through mapping of assets Evaluating the maturity of architecture
Knowledge and document management tools	Capturing, storing, and sharing architecture patterns, standards, requirements, and other relevant information across the organization
Analysis and reporting tools	Support of architecture reviews, analyses, and reporting
Service configuration management tools	Assessment of architecturally significant plans and events
Capacity management tools	Capacity modelling supporting architecture viability assessment
Risk management tools	Register, assess, and manage architecture-related risks
Collaboration and communication tools	Communication of architectural information Collaboration between architecture team members
Workflow and task management tools	Support planning and review activities of the practice Integrate the architecture management activities into service value streams
Monitoring and event management tools	Identification of architecturally significant events

Table 5.2 Automation solutions for architecture management activities

Process activity	Means of automation	Key functionality	Impact on the effectiveness of the practice
Architecture governance			
Analyse the organization and requirements	Enterprise architecture management tools Collaboration and communication tools Analysis and reporting tools Knowledge and document management tools	Collection, processing, and presentation of data from diverse sources	High
Develop and agree architecture vision	Enterprise architecture management tools Collaboration and communication tools	Support of decision-making Collaboration and information sharing Store architecture governance artifacts and associated metadata across organization	High
Review the organization's architecture	Enterprise architecture management tools Analysis and reporting tools Knowledge and document management tools	Collection, processing, and presentation of data from diverse sources Reporting engines Dashboard systems	High
Development of a target architecture and roadmap			
Identify requirements	Enterprise architecture management tools Analysis and reporting tools	Collection, processing, and presentation of data from diverse sources Reporting engines	High
Document current architecture	Enterprise architecture management tools Knowledge and document management tools	Architecture mapping and analysis Store architecture artifacts and associated metadata across organization	High
Develop target architecture	Enterprise architecture management tools	Architecture mapping and analysis Store architecture artifacts and associated metadata across organization	High
Design standards, frameworks, and guidelines	Enterprise architecture management tools Collaboration and communication tools Workflow and task management systems	Architecture mapping and analysis Workflow design and management	High
Design, agree, and communicate architecture roadmap	Enterprise architecture management tools Collaboration and communication tools	Architecture mapping and analysis, roadmap mapping Collaboration and information sharing	High
Ongoing architectural control			
Identify architecturally significant plans and events	Enterprise architecture management tools Workflow and task management tools Monitoring and event management tools	Work planning, assessment and approval flows, and controls Event detection and correlation	High
Check for conformance to the target architecture	Enterprise architecture management tools	Architecture mapping and analysis, roadmap mapping	High
Escalate non-conformance	Communication and collaboration tools	Collaboration and information sharing	Medium
Review progress against the architecture roadmap	Enterprise architecture management tools Workflow and task management tools	Architecture mapping and analysis, roadmap mapping	High

#### 5.2.1 Recommendations for automation of architecture management

The following recommendations can help when applying automation to architecture management:

- **Visualize architectures:** use service enterprise architecture tools, service configuration management tools or other available systems to produce, maintain, and analyse visual models of architecture components and their relationships.
- **Turn data into insights:** use automation to integrate multiple types of data including strategic and architecture data for better decision-making and strategy execution. Consider AI and other technologies to automate data gathering, processing and presentation as much as possible. Use data science to extend organization's opportunities, optimize, and innovate architecture.
- **Adopt Artificial Intelligence (AI):** improve efficiency of architecture management by automating repetitive task and improving the accuracy of modelling and data management. Use AI to analyse the architecture data quickly and accurately, to discover architecture components and relationships, and to maintain the architecture information up to date.
- **Integrate and embed architecture governance and ongoing architecture control in all relevant workflows:** make sure that architecture principles and patterns are known and used. Link architecture governance to the relevant workflows (for example, design management, change enablement, and portfolio management). Automate identification, reporting, and evaluation of architecturally significant plans and events.

## Chapter 6

### Partners and suppliers

#### 6.1 Dependencies on third parties

The organization's architecture should support its strategy and ensure that all components of the organization effectively contribute to its success. The architecture is not limited to the organization's own resources. This includes the organization's service portfolio and the way it interacts with its service consumers. Third-party services utilized by the organization also should not be underestimated.

At the business architecture level, important trends include multi-sourcing and service integration and management on one hand, and disintermediation on the other. At the technology architecture level, digitization, AI, and cloud services are the main trends affecting the architecture.

Both business and technology trends influence the product and service architecture. This should be reflected in the organization's architecture and considered when planning target architectures and roadmaps. To address this, the architecture management practice should be conducted in close conjunction with other practices, such as portfolio management, supplier management, organizational change management, risk management, infrastructure and platform management, and of course strategy management.

#### 6.2 Support from third parties

The architecture ownership and responsibility belong to an organization; however, it is a common practice to share or outsource responsibility for certain architecture development, implementation, management and deployment activities.

Apart from involvement in the architecture initiatives, partners and suppliers may support architecture management practice in the following ways:

- **Performing the architecture management activities in the relevant domain:** some activities related to development and implementation of the architecture roadmap for selected architecture domains can be largely or completely performed by an external partner. Examples include facilitating business strategy design, developing data management or technology architecture principles, and others. Architecture board should ensure that the methods used by suppliers are relevant and meet the organization's architecture standards. It is also important to ensure that the supplier's access to the organization's data is approved by the organization and meets its information security policies.
- **Provision of software tools and tools integration:** it is likely that the practice will be supported by multiple tools, usually at least enterprise architecture management tools, service configuration management tools, collaboration tools, and risk management tools. It is very important to ensure effective integration across these tools, and organizations often involve third-party system integrators to help with the integration projects.
- **Consulting and advisory:** specialized suppliers can help establish and develop architecture management practice and adopt specific methods and techniques. They can help the organization to analyse and initially document the current architecture. Recommendations on the target architecture and available technology opportunities can be provided by an external architecture consultant.



# Chapter 7

## Capability assessment and development

### 7.1 The practice capability levels

The practice success factors described in section 2.4 cannot be developed overnight. The ITIL maturity model defines the following capability levels applicable to any management practice:

- Level 1** The practice is not well organized; it is performed as initial or intuitive. It may occasionally or partially achieve its purpose through an incomplete set of activities.
- Level 2** The practice systematically achieves its purpose through a basic set of activities supported by specialized resources.
- Level 3** The practice is well-defined and achieves its purpose in an organized way, using dedicated resources and relying on inputs from other practices that are integrated into a service management system.
- Level 4** The practice achieves its purpose in a highly organized way, and its performance is continually measured and assessed in the context of the service management system.
- Level 5** The practice is continually improving organizational capabilities associated with its purpose.

For each practice, the ITIL maturity model defines criteria for every capability level from level 2 to level 5. These criteria can be used to assess the practice's ability to fulfil its purpose and to contribute to the organization's service value system.

Each criterion is mapped to one of the four dimensions of service management and to the supported capability level. The higher the capability level, the more comprehensive realization of the practice is expected. For example, criteria related to practice automation are typically defined at level 3 or higher because effective automation is only possible if the practice is well-defined and organized.



Figure 7.1 Design of the capability criteria

This approach results in every practice having up to 30 capability criteria based on the practice PSFs and mapped to the four dimensions of service management. The number of criteria at each level differs; the four dimensions are comprehensively covered starting from level 3, so this level typically has more criteria than others.

Table 7.1 outlines the capability criteria that are defined in the ITIL maturity model for the architecture management practice.

Table 7.1 Architecture management capability criteria

PSF	Criterion	Dimension	Capability level
Ensuring that the organization's strategy is supported with a target architecture	A target enterprise architecture is defined. It is then discussed and agreed at the executive level of the organization	Value streams and processes	2
	The target enterprise architecture is mapped to the organization's strategy	Value streams and processes	2
	The target enterprise architecture addresses the organization and its people	Organizations and people	3
	The target enterprise architecture addresses operating models, value streams, and processes	Value streams and processes	3
	The target enterprise architecture addresses sourcing, partnerships, and third-party dependencies	Partners and suppliers	3
	The target enterprise architecture addresses information and technology	Information and technology	3
	The effectiveness and strategic alignment of the target enterprise architecture are regularly measured, reported, and assessed	Value streams and processes	4
	The target enterprise architecture is continually reviewed and improved	Value streams and processes	5
Ensuring that the organization's architecture is continually evolving to the target state	The architecture roadmap is agreed and approved at the executive level of the organization	Value streams and processes	2
	The architecture roadmap defines the required competencies and organizational solutions	Organizations and people	3
	The architecture roadmap defines required changes in operating models, value streams, and processes	Value streams and processes	3
	The architecture roadmap defines required changes in sourcing, partnerships, and third-party dependencies	Partners and suppliers	3
	The architecture roadmap defines the required changes in information and technology	Information and technology	3
	The realization of the architecture roadmap is managed as programmes and/or projects, where appropriate	Value streams and processes	3
	The competencies required for the architecture roadmap's realization are identified and sourced in the agreed way	Organizations and people	3
	Where appropriate, suppliers and partners are involved in the planning and realization of the architecture roadmap	Partners and suppliers	3
	The realization of the architecture roadmap is regularly measured, reported, and assessed	Value streams and processes	4
	The architecture roadmap is regularly reviewed and continually improved	Value streams and processes	5

These capability criteria can be used by organizations for self-assessment and the improvement of the practice.

### 7.2 Capability self-assessment

A self-assessment can be conducted by the service provider's internal audit team (if the service provider has one) or by the respective team of the parent organization. If there is no specialized team in the organization, the assessment can be done by a team of practice owners and managers responsible for other management practices of the service provider, or a mixed team of the service provider's executive leaders and managers.

To perform a quick self-assessment using the capability criteria, the following rules should be followed.

- Start with the level 2 criteria. Based on the knowledge of your organization, answer the question, 'Is this a valid description of our organization in MOST cases?'
- If the answer to the question above is 'yes', make a list of at least three types of material evidence that could prove the answer. These can be records, documents, interviews with business stakeholders, or service provider's employees.
- If the answer is 'yes' to all criteria of level 2, this level is considered achieved. Proceed to the criteria of level 3.
- If not all criteria of level 2 are met, the practice is considered to be at level 1. Focus on the criteria that are not met. What is missing in the organization? Why? How can it affect the service consumer and the quality of the IT services? What can be done to meet the criteria that are currently missed?
- The same approach is applied at every next level; the practice is considered to be at the level where all criteria are met. It is important to focus on the missing capabilities and improvement opportunities, rather than on a formal achievement of a high capability level.

### 7.3 Architecture management capability development

Management practices should support the achievement of the organization's objectives and enable the creation of value for stakeholders. Depending on the service provider's strategy, positioning, and business and operating models, some practices may be more important and therefore require a higher level of capability. No organization requires all management practices to be at capability level 5. A higher capability level provides higher assurance of the fulfilment of the practice's purpose, but it comes with a cost: for example, the cost of management, automation, and training. To achieve optimal performance with a sufficient level of assurance, organizations should define a target capability level for each management practice.

Figure 7.2 and Table 7.2 show the capability development model, which can be applied to every management practice. The structure of this Official Practice Guide is aligned with the development steps.

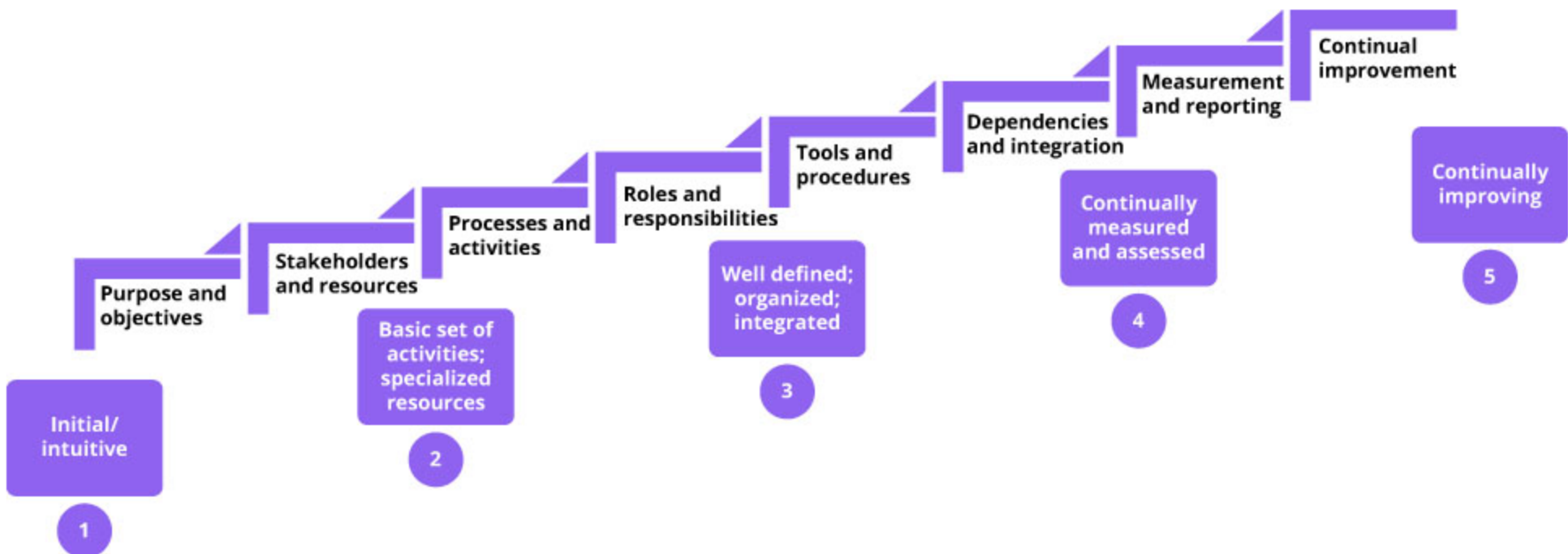


Figure 7.2 The capability development steps and levels

Table 7.2 The architecture management capability development steps

Capability level	Define, agree, and implement	Comment for architecture management	Chapter (for recommendations)
2	Purpose and objectives	Strategy and requirements	2.1
	Scope	Architecture domains	2.3
	Processes and activities	Architecture principles and standards	3.1
	Roles and responsibilities	Current and target architecture	4
	Tools and procedures	Architectural controls and support of decision-making	5
3	Dependencies and integration	Integration in the organization's service value streams	3.2
		Use of integrated information system	5
		Suppliers and other parties involved in architecture management	6
4	Measurement and reporting	Practice metrics and reports	2.5
5	Continual improvement	Regular review of the practice and the architecture management capability development	2.4, 2.5, 7



## Chapter 8

### Recommendations for practice success

Most of the content of the Official Practice Guides should be taken as a suggestion of areas that an organization might consider when establishing and nurturing their own practices. When using the content of the Official Practice Guides, organizations should always follow the ITIL guiding principles:

- focus on value
- start where you are
- progress iteratively with feedback
- collaborate and promote visibility
- think and work holistically
- keep it simple and practical
- optimize and automate.

In Table 8.1, recommendations for the success of the architecture management practice are linked to the relevant guiding principles.

**Table 8.1 Recommendations for the success of architecture management**

Recommendation	Comments	ITIL guiding principles
Align with business strategy	Architecture cannot be managed in isolation or for its own sake. Align the practice with the organization's strategic goals and demonstrate how architectures contribute to achieving them. Articulate tangible business benefits such as increased agility, cost reduction, or improved customer experience.	Focus on value
Embrace agility and continual improvement	Don't spend too much time on creating overly complex documentation. Focus on iterative cycles of analysis, design, and implementation. Be flexible and responsive to changing needs while maintaining architectural principles.	Keep it simple and practical Progress iteratively with feedback
Build strong relationships	Foster collaboration with business leaders, IT stakeholders, and other key stakeholders. Invest in education and communication to create shared understanding and buy-in for the architectural vision and roadmap.	Collaborate and promote visibility
Focus on the right level of granularity	Tailor your architecture to the organization's size and complexity. Avoid overly detailed diagrams that become irrelevant; prioritize critical components and guiding principles.	Focus on value Progress iteratively with feedback Keep it simple and practical
Leverage existing frameworks and tools	Don't reinvent the wheel. Adopt well-established frameworks like TOGAF, Zachman, or ArchiMate and adapt them to your needs. Use appropriate tools for modeling, documentation, and collaboration. Capture, store, and apply architecture patterns.	Start where you are
Champion data governance and integration	Establish clear data management practices and enable seamless integration between systems. This promotes information consistency, accessibility, and strategic decision-making. Leverage AI to capture and integrate information from disconnected sources.	Optimize and automate Think and work holistically
Embrace security and privacy	Integrate security considerations into the architectural design from the outset. Proactively address potential vulnerabilities and ensure compliance with relevant regulations.	Collaborate and promote visibility Think and work holistically
Measure and communicate value	Regularly assess the impact of the architecture management practice on business goals. Quantify benefits achieved and clearly communicate achievements to stakeholders to maintain and increase their support.	Focus on value Collaborate and promote visibility Progress iteratively with feedback
Foster a culture of innovation	Encourage experimentation and learning within the architecture management team and across the organization. Embrace emerging technologies and trends that can drive further business value. Apply this recommendation to both organization's architectures and the architecture management practice.	Think and work holistically Progress iteratively with feedback
Be human-centric	Remember, technology serves people. Design architectures and the architecture management practice with the user experience in mind, addressing needs, challenges, and aspirations within the organizational context. Involve relevant stakeholders from across the organization to review and improve the architectures.	Focus on value Collaborate and promote visibility

# Glossary

**four dimensions of service management**

The four perspectives that are critical to the effective and efficient facilitation of value for customers and other stakeholders in the form of products and services.

**information and technology**

One of the four dimensions of service management. It includes the information and knowledge used to deliver services, and the information and technologies used to manage all aspects of the service value system.

**ITIL continual improvement model**

A model which provides organizations with a structured approach to implementing improvements.

**ITIL guiding principles**

Recommendations that can guide an organization in all circumstances, regardless of changes in its goals, strategies, type of work, or management structure.

**ITIL maturity model**

A tool that organizations can use to objectively and comprehensively assess their service management capabilities and the maturity of their service value system.

**ITIL service value chain**

An operating model for service providers that covers all the key activities required to effectively manage products and services.

**metric**

A measurement or calculation that is monitored or reported for management and improvement.

**organization**

A person or a group of people that has its own functions with responsibilities, authorities, and relationships to achieve its objectives.

**organizations and people**

One of the four dimensions of service management. It ensures that the way an organization is structured and managed, as well as its roles, responsibilities, and systems of authority and communication, is well defined and supports its overall strategy and operating model.

**output**

A tangible or intangible deliverable of an activity.

**partners and suppliers**

A tool that organizations can use to objectively and comprehensively assess their service management capabilities and the maturity of their service value system.

**practice**

A set of organizational resources designed for performing work or accomplishing an objective. These resources are grouped into the four dimensions of service management.

**practice success factor**

A complex functional component of a practice that is required for the practice to fulfil its purpose.

**process**

A set of interrelated or interacting activities that transform inputs into outputs. A process takes one or more defined inputs and turns them into defined outputs. Processes define the sequence of actions and their dependencies.

**service provider**

A role performed by an organization in a service relationship to provide services to consumers.

**service provision**

Activities performed by an organization to provide services and/or supply goods. Service provision includes:

- management of the provider's resources, configured to deliver the service
- ensuring access to these resources for users
- fulfilment of the agreed service actions
- service level management and continual improvement.

**service relationship**

A cooperation between a service provider and service consumer. Service relationships include service provision, service consumption, and service relationship management. Relationships can be basic, cooperative or collaborative (also known as a partnership).

**service value system**

A model representing how all the components and activities of an organization work together to facilitate value creation.

**stakeholder**

A person or organization that has an interest or involvement in an organization, product, service, practice, or other entity.

**supplier**

A stakeholder responsible for providing services that are used by an organization.

**user**

A person who uses services.

**value**

The perceived benefits, usefulness, and importance of something.

**value stream**

A series of steps an organization undertakes to create and deliver products and services to consumers.

**value streams and processes**

One of the four dimensions of service management. It defines the activities, workflows, controls, and procedures needed to achieve the agreed objectives.

# Index

## F

**four dimensions of service management**, 6, 9, 37-38, 47-48

## I

**information and technology**, 3, 6, 38, 47

**ITIL continual improvement model**, 47

**ITIL guiding principles**, 43, 47

**ITIL maturity model**, 37-38, 47

**ITIL service value chain**, 47

## M

**metric**, 11, 29, 40, 47

## O

**organization**, 3, 5-11, 13-14, 16, 19-20, 22-27, 29-32, 35, 37-40, 43-44, 47-48

**output**, 13, 15, 17, 21, 29, 47

## P

**partners and suppliers**, 3, 34-35, 38, 47

**practice**, 3, 5-11, 13-14, 16, 19-21, 23-24, 26-27, 29-30, 35, 37-40, 42-44, 47-48

**practice success factor**, 9, 11, 37, 47

**process**, 3, 5-6, 8, 12-18, 21, 24, 29-31, 38, 40, 47-48

## S

**service provider**, 5-6, 39, 47-48

**service provision**, 48

**service relationship**, 47-48

**service value system**, 6, 37, 47-48

**stakeholder**, 5-8, 10, 16, 18-21, 23-24, 29, 39, 43-44, 47-48

**supplier**, 3, 6-7, 34-35, 38, 40, 47-48

## U

**user**, 20, 44, 47-48

## V

**value**, 3, 6-8, 10-12, 15-16, 18-21, 23, 26, 30, 37-40, 43-44, 47-48

**value stream**, 6, 8, 10-12, 15-16, 18-21, 23, 26, 30, 38, 40, 48

**value streams and processes**, 12, 38, 48