
Overview

This sub-discipline is concerned with the competencies required to create, maintain and manage IT architecture models representing the operating model for an organisation and their lower level components. It also includes those competencies required to interpret, use and apply information contained within an IT architecture to inform a range of business improvement activities, particularly those involved in the design, development, enhancement and maintenance of information technology systems supporting an organisation.

The Enterprise Architecture is typically underpinned by other diagrammatic representations of the organisation which map it at increasingly lower levels of granularity – for some large organisations, more detailed representation of the Enterprise will be represented at individual business unit level within a Segment Architecture. Some of the models represent the organisation with specific emphasis on one aspect of its operation e.g. a Data Architecture represents the organisation's information assets, their relationship with each other, and the definition of information types used and a Process Architecture concentrates on the process flows and how information may be processed within the organisation.

A Systems or Solutions Architecture provides a detailed representation of elements of the organisation that need to be supported by current or new/enhanced information technology systems. It articulates, at a low level of detail, how individual technology components need to support the process, processing and information flows required in one or several areas of the organisation. Frequently, a logical Systems or Solutions Architecture is created and used as the blueprint upon which physical design work of individual system components, or assessment of purchased components against requirements is based. The resulting physical Solutions or Systems Architecture is primarily concerned with the definition of internal interfaces among the system's components or subsystems, and the interface between the system and its external environment, especially the user.

For the purposes of these standards, all variations and types of IT architecture work are covered within this sub-discipline.

Performance criteria

Manage the development of IT/technology architecture models

You must be able to:

- P1 C Correctly identify the relationship between the business operating model, processes, operations and functions within the business and current IT/technology systems, services and assets
- P2 Correctly identify and select all necessary information relating to the business strategy, business rules and operating model that will be used to inform IT/technology architecture work
- P3 Design and develop accurate and comprehensive IT/technology architecture models and/or roadmaps relevant to any particular IT/technology assignment, under direction
- P4 Ensure that IT/technology architecture models and/or roadmaps are fully agreed and signed off in a timely manner by appropriately authorised individuals

Manage, use and maintain IT/technology architecture models

You must be able to:

- P5 Correctly select, implement and maintain the most appropriate processes, tools and techniques for undertaking IT/technology architecture work
- P6 Critically and objectively interpret all relevant information gathered during IT/technology architecture work, under guidance
- P7 Critically analyse the implications of external factors, business change, including projects and programmes, on IT/technology architecture models and roadmaps, under the direction of superiors
- P8 Use IT/technology models and roadmaps astutely and persuasively to influence strategic IT/technology decision making and operational business decision making
- P9 Routinely monitor and regularly report the progress of any IT/technology architecture assignment undertaken by other individuals
- P10 Routinely and regularly monitor the alignment of systems/service design, development and implementation work with IT/technology architecture models and roadmaps, under guidance

Document all relevant details relating to IT/technology architecture activities

You must be able to:

- P11 Document, precisely and accurately, IT/technology architecture models and/or roadmaps
- P12 Accurately and clearly document what information, data, knowledge, processes and functions are most important/critical to, or valued by, the organisation, based on the results of architecture work
- P13 Correctly document what IT/technology systems, services and assets currently exist within the organisation, their relationship to the operating model and what systems, services and assets may be required in the

future, based on the results of IT/architecture work

Provide relevant information to others

You must be able to:

- P14 Ensure that other individuals involved in the development of IT/technology systems services and assets understand the content and implications of relevant IT/technology architecture models and roadmaps, under direction
- P15 Communicate, clearly and persuasively to a range of sponsors, stakeholders and other individuals, the value of IT/technology architecture work and the importance of having effective IT/technology architectures and roadmaps as the 'blueprint' against which new IT/technology business processes and operating models may be developed

Knowledge and understanding

Manage the development of IT/technology architecture models

You need to know and understand:

- K1 Identify and select
 - K1.1 naming conventions and standards appropriate to use in IT/technology architecture work
 - K1.2 the most appropriate type/s of architecture models to support the requirements of a particular architecture assignment
 - K1.3 the most appropriate organisational and IT/technology elements to be included in any particular architecture model and/or roadmap, and their relevance in any particular IT/technology or business context
 - K1.4 any business rules and their relationship to any particular IT/technology architecture assignment
 - K1.5 who needs to be involved in any particular IT/technology architecture assignment
 - K1.6 the processes, tools and techniques for conducting IT/technology architecture and/or roadmap work
 - K1.7 information relating to the business strategy, business rules and operating model that will be used to inform IT/technology architecture work
 - K1.8 what information is required to update and maintain IT/technology architecture models and roadmaps
 - K1.9 the sources of all information that will be used during IT/technology architecture activities
 - K1.10 the range of issues associated with IT/technology architecture activities
 - K1.11 external factors and their implications on IT/technology architecture activities
 - K1.12 the timescales and other relevant criteria that should apply to any IT/technology architecture assignment and its deliverables
 - K1.13 what information and data is held within, processed and used by the organisation
 - K1.14 what processes, operations and functions currently exist within the organisation and their relationship to IT/technology systems, services and assets
 - K1.15 what IT/technology systems, services and assets currently exist within the organisation and their relationship to the business operating model
 - K1.16 the impact of any legislation, regulation and external standards relevant to the organisation on IT/technology architecture models and roadmaps
- K2 Take action
 - K2.1 to take account of organisational culture and structure in IT/technology architecture activities
 - K2.2 with other individuals involved in the development of IT/technology systems services and assets understand the content and implications of

- relevant IT/technology architecture models and roadmaps
- K2.3 that IT/technology architecture models and/or roadmaps are agreed and signed off by appropriately authorised individuals
- K2.4 that development activities undertaken by others align with architectural models and roadmaps
- K3 Design and develop
 - K3.1 plans associated with any IT/technology assignment
 - K3.2 IT/technology architecture models and/or roadmaps relevant to any particular IT/technology assignment
- K4 What
 - K4.1 is the relationship between IT/technology architecture and business strategy work
 - K4.2 is the relationship between IT/technology architecture and business operating models
 - K4.3 business and technical expertise may be required to develop any particular type of architecture model or roadmap
- K5 What are the
 - K5.1 issues associated with undertaking IT/technology architecture work
 - K5.2 internal and external factors and their implications on IT/technology architecture activities
 - K5.3 implications of organisational culture and structure on IT/technology architecture work and its deliverables
 - K5.4 implications of any legislation, regulations and external standards on IT/technology architecture work and its deliverables
 - K5.5 potential implications of IT/technology architecture activities on the business strategy and operating model
 - K5.6 potential implications of IT/technology architecture activities on the IT/technology strategy
 - K5.7 potential implications of IT/technology architecture activities on the design and development of IT/technology systems, services and assets
- K6 The fact that
 - K6.1 IT/technology architecture work and its deliverables can have a major influence on business strategy and the operating models used by an organisation
 - K6.2 IT/technology architecture models are often used by organisations internally and with external bodies to illustrate and record 'how the business works'
 - K6.3 IT/technology architecture models are often used by organisations to identify ineffective and inefficient processes, data handling/usage and IT/technology components
 - K6.4 architecture models are often used by organisations to identify what data, IT/technology and processes are most important, critical or valued
 - K6.5 IT/technology architecture models and roadmaps may be used to monitor the effective alignment of IT/technology systems, services and

- assets with the business strategy and operating model
- K6.6 the impact of any legislation, regulation and external standards relevant to the organisation needs to be reflected in IT/technology architecture models and roadmaps
- K6.7 IT/technology architecture may be used to support strategic, operational and tactical decision making within an organisation
- K6.8 IT/technology architecture may be used to support business activities that span multiple organisations, such as mergers and acquisitions, joint ventures and collaborative working
- K6.9 differing types of IT/technology architecture models require particular technical and/or business expertise for their design, development and maintenance
- K6.10 in some organisations, IT/technology deliverables are used by other individuals and groups within the wider organisation, to support their own decision making and business operations
- K6.11 IT/technology architecture activities and individuals involved in them may become 'remote from reality' if they do not proactively engage with all other relevant IT/technology functions
- K6.12 there are benefits and disadvantages of using external providers of IT/technology architecture services
- K7 Why
- K7.1 some organisations base their decisions on IT/technology projects and programmes on IT/technology architecture and roadmaps
- K7.2 some organisations choose to use external providers of IT/technology architecture and roadmap services and others choose to perform this activity themselves
- K7.3 the impact of any legislation, regulation and external standards relevant to the organisation needs to be reflected in IT/technology architecture models and roadmaps
- K8 Who
- K8.1 are the sponsors of and stakeholders for IT/technology architecture activities within the organisation
- K8.2 are potential external providers of IT/technology architecture and roadmap services
- K8.3 needs to authorize changes to IT/technology architecture models and roadmaps

Manage, use and maintain IT/technology architecture models

You need to know and understand:

- K9 Use
- K9.1 information relating to the priorities for and scope of IT/technology architecture work

- K9.2 information data and knowledge relating to the timescales and other relevant criteria that should apply to IT/technology architecture work and its deliverables
- K9.3 information relating to the external factors and their implications for IT/technology architecture work
- K9.4 information already gathered and contained within IT/technology architectures
- K9.5 best practice in IT/technology architecture work
- K9.6 IT/technology models and roadmaps to influence strategic IT/technology decision making
- K9.7 IT/technology models and roadmaps to influence operational business decision making
- K9.8 IT/technology models and roadmaps to support business activities that span
- K9.9 multiple organisations, such as mergers and acquisitions, joint ventures and collaborative working
- K10 Implement and maintain
 - K10.1 the processes, tools and techniques for undertaking IT/technology architecture work
 - K10.2 the processes, tools and techniques to monitor the alignment of IT/technology architecture activities with all relevant legislation, regulations and external standards
- K11 Gather information relating to the
 - K11.1 timescales and other relevant criteria that should apply to IT/technology architecture work and its deliverables
 - K11.2 external factors and their implications on IT/technology architecture work
- K12 Analyse and interpret
 - K12.1 all information gathered during IT/technology architecture work
 - K12.2 the implications of IT/technology architecture models and roadmaps for projects and programmes
 - K12.3 the implications of business change, including projects and programmes on IT/technology architecture models and roadmaps
 - K12.4 the implications of external factors on IT/technology architecture models and roadmaps
- K13 Monitor
 - K13.1 the accuracy, currency and completeness of any particular IT/technology model and/or roadmap
 - K13.2 the progress of any IT/technology architecture assignment
 - K13.3 the alignment of systems/service design, development and implementation work with IT/technology architecture models and roadmaps
 - K13.4 the alignment of IT/technology architecture models and roadmaps with business change and projects and programmes
- K14 Report

- K14.1 the progress of any IT/technology architecture assignment
- K14.2 the findings and recommendations from any IT/technology architecture assignment
- K15 Take action to ensure that IT/technology architecture deliverables are updated to reflect changes in the business landscape brought about by a range of activities including business change, external factors, projects, programmes and IT/technology systems, services and assets
- K16 The need for monitoring the
 - K16.1 alignment of systems/service design, development and implementation work with IT/technology architecture models and roadmaps
 - K16.2 quality and effectiveness of external providers of IT/technology architecture services
 - K16.3 relevance of IT/technology architecture activities to all other IT/technology functions and operational activities
- K17 The processes, tools and techniques that can be used
 - K17.1 monitor the alignment of systems/service design, development and implementation work with IT/technology architecture models and roadmaps
 - K17.2 the relevance of IT/technology architecture activities to all other IT/technology functions and operational activities
 - K17.3 monitor the quality and effectiveness of external providers of IT/technology architecture services

Document all relevant details relating to IT/technology architecture activities

You need to know and understand:

- K18 Document
 - K18.1 what processes, operations and functions currently exist within the organisation and may exist in the future and their relationship to data, IT/technology systems, services and assets
 - K18.2 what IT/technology systems, services and assets currently exist within the organisation, their relationship to the operating model and what systems, services and assets may be required in the future
 - K18.3 any particular IT/technology architecture model required and appropriate to an assignment
 - K18.4 roadmaps to support the move from the current state to the target state
 - K18.5 implications of IT/technology architecture work on projects and programmes supporting business and IT/technology change
 - K18.6 decisions taken as a result of the deliverables of IT/technology architecture work
 - K18.7 what information, processes and functions are most important/critical to, or valued by, the organisation, based on the results of architecture work

Provide relevant information to others

You need to know and understand:

- K19 Manage relationships with sponsors, stakeholders and external bodies on matters relating to IT/technology architecture work
- K20 Communicate
 - K20.1 the importance and value of IT/technology architecture work to sponsors, stakeholders and other individuals
 - K20.2 the importance of having IT/technology architectures and roadmaps as the 'blueprint' against which new IT/technology business processes and operating models may be developed
 - K20.3 what processes, data, operations, functions and organisational entities may exist in the future and their relationship to IT/technology systems, services and assets
 - K20.4 what IT/technology systems, services and assets currently exist within the organisation and their relationship to the operating model
 - K20.5 what IT/technology systems, services and assets may exist in the future
- K21 The importance of
 - K21.1 IT/technology architecture work in informing, influencing and guiding decision making relating to the business strategy and operating model
 - K21.2 ensuring that there are appropriate and relevant IT/technology architecture models and roadmaps to support the needs of the full range of IT/technology components and elements (e.g. software, infrastructure, networks)
 - K21.3 having clear roadmaps, based on the IT/technology architecture, to inform and guide decision making about business change, projects, programmes and the design and development of IT/technology systems, services and assets
 - K21.4 maintaining the accuracy of any IT/technology architecture models and roadmaps, in line with business strategy and operating models
 - K21.5 having a clear mandate, identified sponsor and scope for any IT/technology architecture work
 - K21.6 managing relationships with sponsors, stakeholders and external bodies in all aspects of IT/technology architecture activities

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