Malaysia Government Enterprise Architecture (MyGovEA)

Architecture Repository

<Month, Year>

Project: *<Project Name>*

Iteration: *<Cycle No.- Iteration No.>*

(eg.C01-I01)

Agency: *<Agency Name>*

Reference Code: *<Agency Code>S1-R001*

Document History

Document Information

This section provides a summary of information for this document.

Project Name:	<Project Name>		
Prepared By:		**Document Version No:**	0.1
Title:	Architecture Repository	**Document Version Date:**	
Reviewed By:		**Review Date:**	

Distribution List

This section provides a list of recipients of this document and individual key actions to be taken subsequently.

To	Action*	Phone/Fax/Email	Designation

Document Version History

This section provides a formal log of changes/revisions to any document that has been approved by the Agency Office of the Architect. The following guidelines should be employed when recording the document versions:

a) Draft documents are to be labelled as version 0;

b) First draft document to be shared with the project team is to be labelled as version 0.9;

c) Final version of the document approved by the Central Office of the Architect will be labelled as version 1.0; and

d) Any subsequent revised versions of the document that has been approved by the Central Office of the Architect will be labelled as version 1.x.

Version Number	Version Date	Revised By	Description	Filename

Abbreviation

Acronym/Abbreviation	Definition

Document Sign Off

This section lists the key representatives responsible for acknowledging and approving all information detailed in this document.

Name	Role/ Title	Date	Signature

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1. Project Overview

1.1. Agency Overview

This section provides a summary of the public sector agency, that is, what the agency does, its vision and objectives and a high-level overview of its operations. This provides readers with a basic understanding of the operations of the public sector agency.

1.2. Project Outline

This section provides an executive summary of the public sector agency's architecture initiative. It paints a high-level picture of the project for readers of this document to gain a basic understanding of the architecture work to be carried out.

1.3. Project Objectives

This section details the objectives of executing the architecture initiative.

1.4. Scope of Project

This section defines the areas of which the architecture project will encompass when it is executed.

2. Purpose of the Document

The Architecture Repository acts as a holding area for all architecture-related projects within the agency. The repository allows projects to manage their deliverables, locate re-usable assets, and publish outputs to stakeholders and other interested parties.

The purpose of this Architecture Repository Document is to document the Architecture Repository used, the architectue content stored within, the connection methods and contact details for those resposible of maintaining the Architecture Repository.

This deliverable template is designed to guide the architects on the general format and content required within the deliverable produced while executing the MyGovEA Methodology. It is intended that the agency architects should tailor the template accordingly based on the nature of the architecture work being performed and / or the agency environment. Any italicised text within this deliverable template is intended to guide authors on the content that should be developed in the respective sections.

3. Architecture Framework

3.1. Overview

This section provides an overall description of the MyGovEA Framework that will be used and will serve as a guiding architectural framework to develop and define the core architecture elements in building and operating EA practices in the agency. The framework provides a set of functional guides describing key components of Enterprise Architecture an agency will need to develop as it embarks on building EA practices within the organisation.

3.2. Architecture Framework

This section describes the Architecture Framework that will be used to develop EA practices in the agency. It is recommended that a pictorial representation (i.e. diagram) of the framework is provided in this section for ease of understanding by readers. A comprehensive description/ explanation of each component that makes up the framework should also be detailed in this section.

This section should be expanded based on the componentsin the framework and where possible, grouped into its respective categories (e.g. development and operational components). In other words, subsequent sub-sections in this section should explain the categories and/ or components in the framework.

An overview of the MyGovEA Framework, illustrated Figure 1, comprises six (6) main components that support Project X to embarking on EA.

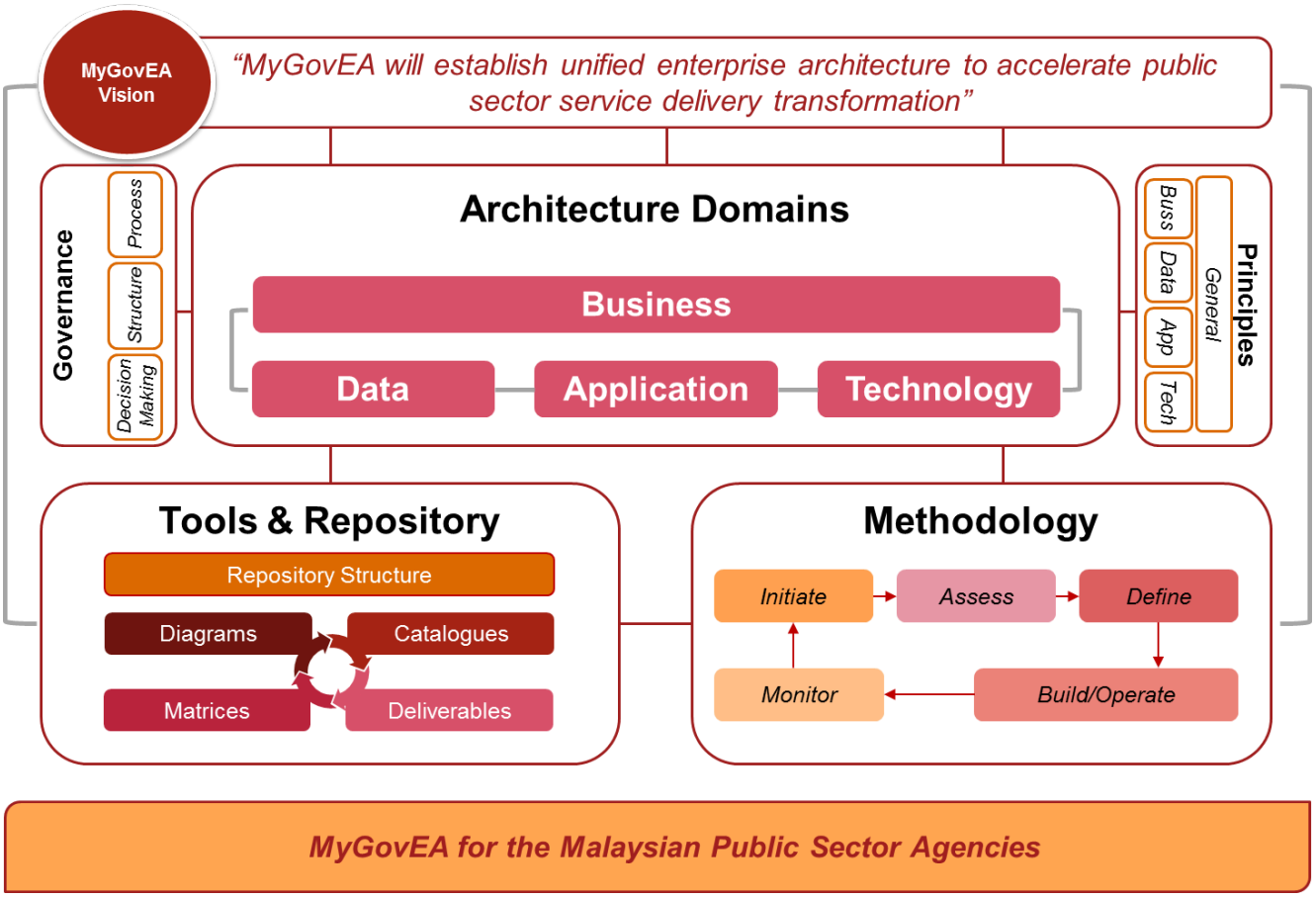

Figure 1: MyGovEA Framework

The six (6) components comprising the MyGovEA Framework are highlighted in Figure 2 along with a description of each component.

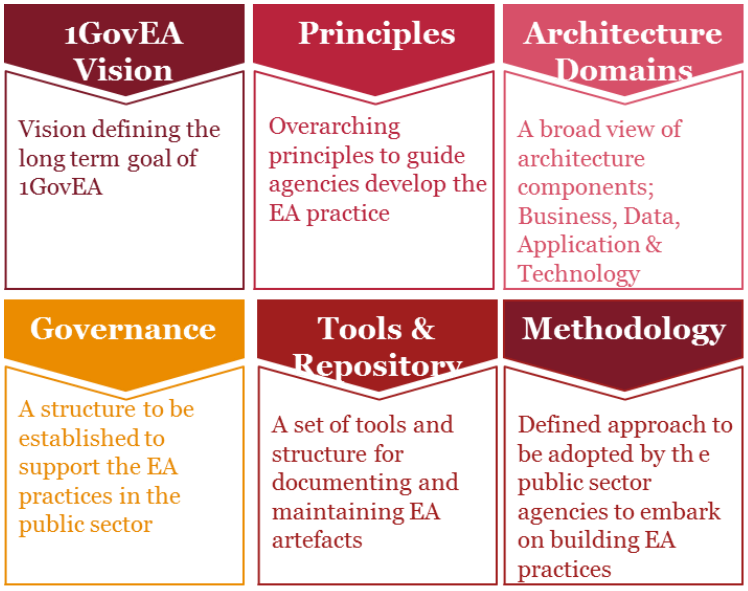

Figure 2: MyGovEA Framework Development Components

These six (6) components can be divided into two (2) cateogories to identify the specific functions of these components as below, which are further described in the following subsections:

a) Development Components; and
b) Operational Components

3.2.1. Development Components

The Development Components are essentially the building blocks of the MyGovEA Framework and are comprised of four (4) core components as follows:

a) **MyGovEA Vision**

The MyGovEA Vision is an elevator pitch that promotes the ultimate aim behind the establishment of the MyGovEA initiative in the Malaysian public sector.

b) **Architecture Principles**

Architecture Principles describe the overarching principles to guide Project X in the construction of their business and technical architecture.

c) **Architecture Domains**

Architecture Domains define the four (4) areas of architecture namely Business, Data, Application and Technology Architecture that need to be developed and maintained as Project X embarks on building the EA practices within the organisation.

d) **Governance**

The Governance component of the MyGovEA Framework describes the recommended structure and operating model that needs to be put in place to support the implementation and operationalization of EA practices in Project X.

An overview of each of the four (4) Development Components is provided in the following subsections.

3.2.1.1. MyGovEA Vision

The MyGovEA Vision illustrates the ultimate aim of the Malaysian Government's intention of embarking on developing EA practices in the Malaysian public sector. The key message derived from the MyGovEA Vision essentially answers the question behind the government's intention to embark on this initiative namely how MyGovEA will support the Malaysian public sector transformation initiative.

3.2.1.2. Architecture Principles

This component defines a set of high-level overarching architecture principles for Project X to support the development of standardised and complementary architectures. The MyGovEA Principles aim to define a fundamental set of architectural standards to enable the development of standardised and consistent architectures across Project X. They also serve as a benchmark to ensure that the architectures conform to standards.

3.2.1.3. Architecture Domains

The Architecture Domains component details the four areas to capture and develop the architecture for Project X, namely the Business, Data, Application and Technology Architectures. The components provide a structure against which the current and target state architectures across Project X that can be assessed and defined. This is to ensure that both states of the architecture are captured in sufficient detail to support gap analysis efforts and identification of projects.

3.2.1.4. Governance

The Governance component describes the Governance Framework and structures that will be put in place to support the implementation of MyGovEA and the continued iterations of Enterprise Architecture within Project X as a 'stand-alone division' for this MyGovEA Implementation Model exercise. The aim of this component is to detail the structures, roles and responsibilities as well as relationships between the various stakeholders. The objective of this component is to provide a flexible governance model

which incorporates existing governance committees, teams or processes, whilst building new structures and processes required to support the successful implementation of MyGovEA.

3.2.2. Operational Components

The Operational Components of the MyGovEA Framework are elements required to operationalise the MyGovEA Framework. The two (2) Operation Components are as follows.

a) **Methodology**

The MyGovEA Methodology outlines the structured approach (e.g. stages and steps) to be adopted by Project X when developing their EA practices based on MyGovEA approach.

b) **Tools and Repository**

The MyGovEA Tools and Repository components in MyGovEA Framework describes the recommended tools and the common repository structure adopted by MyGovEA for documenting artefacts across the four architecture domains.

The Operational Components of the MyGovEA Framework are described in further detail within the following subsections.

3.2.2.1. Methodology

The MyGovEA Methodology component describes a structured approach that Project X can adopt when developing their Enterprise Architecture. This methodology aims to provide a comprehensive step-by-step guide to support the development of Enterprise Architecture in Project X. By adhering to the MyGovEA Methodology, Project X should be better positioned to address architectural issues, build up the MyGovEA Repository and govern the implementation of any technology or business solutions.

3.2.2.2. Tools & Repository

This component details the tools available to support the implementation of MyGovEA within Project X and describes the structure of the MyGovEA Repository. The aim of the Tools and Repository component is to describe Enterprise Architecture tools that are currently available and how they are used in tandem with the MyGovEA Repository to represent the MyGovEA as a Malaysia public sector initiative. The objective of this component is to provide the necessary information to configure the MyGovEA Repository.

4. Architecture Repository

Malaysian Public Sector Architecture Repository will be used to provide a single source for storage and retrieval of EA artefacts that were created using the ArchiMate® Standards. It is intended to be used by all ministries and agencies within Malaysian Government as a central reference.

The Architecture Repository consists of three (3) main components as follows:

Component Name	Description
MyGovEA Repository Client (is refer to 1GovEA iServer 2015)	This component will be used by the architects to create, store and update all EA artefacts.
MyGovEA Portal	This component will serve as the main interface for the users (public and government employees) to know what MyGovEA is all about.
MyGovEA Web System	This component will allow authorized users to view EA artefacts from the web.

Project X will utilize this existing Architecture Repository during the MyGovEA implementation. Currently all artefacts are derived in the Architecture Repository which is stored within a system known as MyGovEA iServer.

4.1. Malaysian Public Sector Architecture Repository Architecture Diagram

This section defines the architecture diagram for MyGovEA iServer Repository, MyGovEA Web Portal and MyGovEA iServer Web System.

4.2. Architecture Repository Content

This section describes the structure (e.g. key sections) of the agency's Architecture Repository that will be used to store documented deliverables, artefacts and information that are gathered during architecture work.

An example repository structure is as follows::

- *Project X Repository*
  - *Artefacts – Contains the folder structure for the Project X Artefacts*
    - *Current Architecture – Contains the current Project X Artefacts*
      - *Application Artefacts - Contains current Project X Application Artefacts*
      - *Business Artefacts - Contains current Project X Business Artefacts*
      - *Data Artefacts - Contains current Project X Data Artefacts*
      - *Technology Artefacts - Contains current Project X Technology Artefacts*
    - *Target Architecture – Contains the target Project X Artefacts*
      - *Application Artefacts - Contains target Project X Application Artefacts*
      - *Business Artefacts - Contains target Project X Business Artefacts*
      - *Data Artefacts - Contains target Project X Data Artefacts*
      - *Technology Artefacts – Contains target Project X Technology Artefacts*
  - *Project X Deliverables - Contains the folder structure for the Project X Deliverables*
    - *Pre-Requisite Stage - Contains Project X Pre-Requisite Stage deliverables*
    - *Stage 1 (Initiate) - Contains Project X Stage 1 deliverables*
    - *Stage 2 (Assess) - Contains Project X Stage 2 deliverables*
    - *Stage 3 (Define) - Contains Project X Stage 3 deliverables*
    - *Stage 4 (Build/Operate) - Contains Project X Stage 4 deliverables*
    - *Stage 5 (Monitor) - Contains Project X Stage 5 deliverables*
  - *Packaged Downloads (ZIP Files) – Contains packaged (ZIP file) documents for easy download*

- *Project X All Artefacts & Deliverables (ZIP File) – Contains all Project X artefacts and deliverables packaged (ZIP file) for easy download*
- *Project X Current Artefacts (ZIP File) – Contains all Project X Current Architecture artefacts packaged (ZIP file) for easy download*
- *Project X Deliverables (ZIP File) - Contains all Project X deliverables packaged (ZIP file) for easy download*
- *Project X Target Artefacts (ZIP File) - Contains all Project X Target Architecture artefacts packaged (ZIP file) for easy download*

4.3. Architecture Repository Access

This section describes the process for a permitted user to gain access to the Architecture Repository. This should describe the owner of the repository as well as an explanation/ description on how other users may request for access to the repository. If applicable, this section may also describe the login procedure/ access points to the repository.

5. Standards Information Base

5.1. Overview

Overview

The Standards Information Base provides a set of specifications/criteria that architectures developed must conform to. These specifications define a clear basis for architectural governance which will support the planning of projects and ensure compliance of architectures developed in the agency.

These standards may originate from various sources and should be detailed within this section.

Examples of classification of standards include:

Public Sector policies and guidelines – a set policies and guidelines that the Public Sector agencies should adhere to; and

Industry Standards – specific international standard selected by the Public Sector agency to adhere to.

The MyGovEA Framework defines standards in terms of the Business, Data, Application and Technology Architecture areas. These list of standards shall be created, updated and maintained within MyGovEA Repository, under the Standards Information Base folder as shown in Figure 9: Standard Information Base Folder Within MyGovEA Repository.

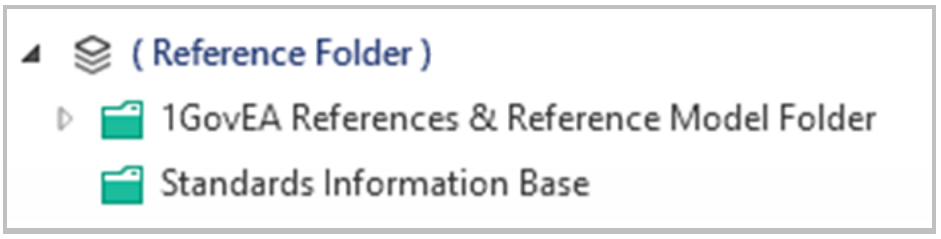

Figure 3: Standard Information Base Folder Within MyGovEA Repository

6. Architecture Landscape

The Architecture Landscape provides architectural views of organisation at certain points in time and can be organised into three (3) main levels which are discussed further in the subsequent subsections:

a) **Strategic Architectures** – This level represents the strategic direction (such as drivers, goals, and concerns) set by the top management which will serve as the guidance of how the target architecture should be designed. This landscape level will be represented using ArchiMate's Motivation Viewpoint

b) **Segment Architectures** – This level represents how the organization is structured, which will serve as the guidance to see the functionalities of each organization structure.

c) **Capability Architectures** – This level represents the capabilities of the organization, which will serve as the guidance of how services are provided, which business processes and roles involved that realizes the services, what kind of information required and/or produced during each business process phases, and which applications and technologies are being used to support the business.

The Architecture Landscape provides characteristic visibility through four (4) dimensions:

a) **Breadth** – how widespread/narrow the Architecture Landscape area will be covered

b) **Depth** – how deep/detailed will the coverage of the Architecture Landscape be

c) **Time** – how long will the realization of the Target Architecture will take.

d) **Recency** – How recent/up-to-date is the information of Architecture Building Block available in the Architecture Landscape.

6.1. Strategic Architectures

This section describes the strategic goals and intents of the overall organisation. These strategic goals serve as a guiding aspirations to all architectural works and efforts undertaken. The strategic architectures intends to describe the vision and goals of the agency, providing an organising framework for operational and corporate planning activities which facilitates setting of direction at the management level. This can be illustrated using a pictorial diagram such as that of Figure 3.

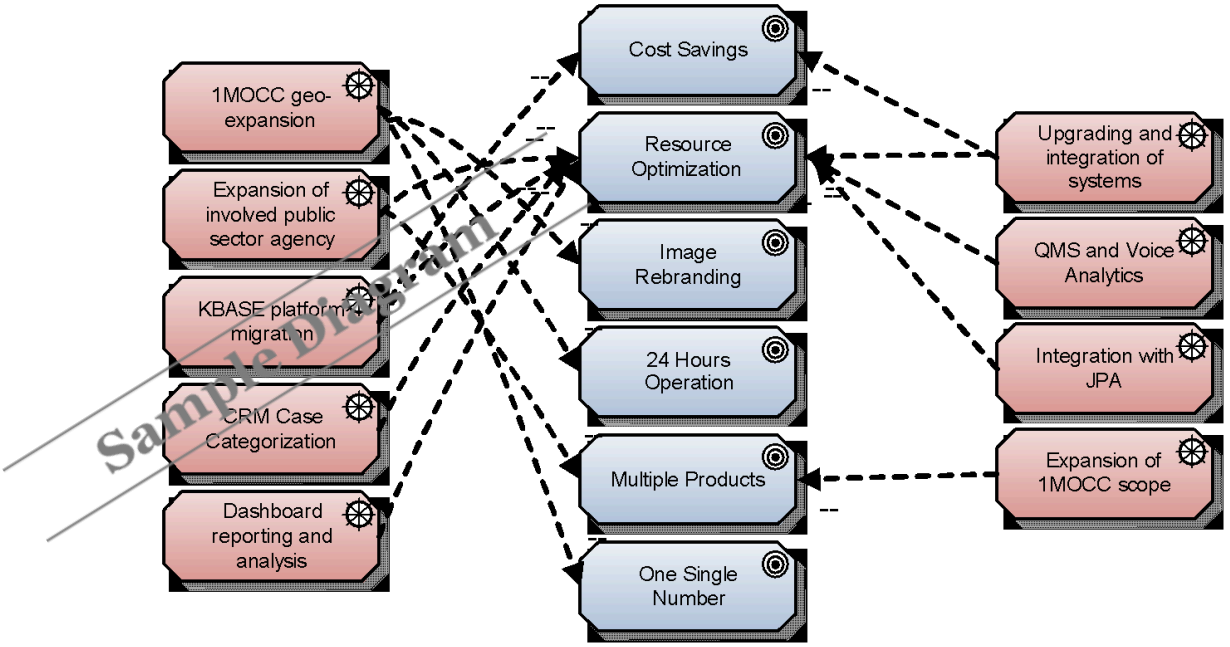

Figure 4: Example Agency Strategic Goals

6.2. Segment Architectures

This section describes detailed operating models of areas within an organisation. This can be illustrated using a pictorial diagram such as that of Figure 4.

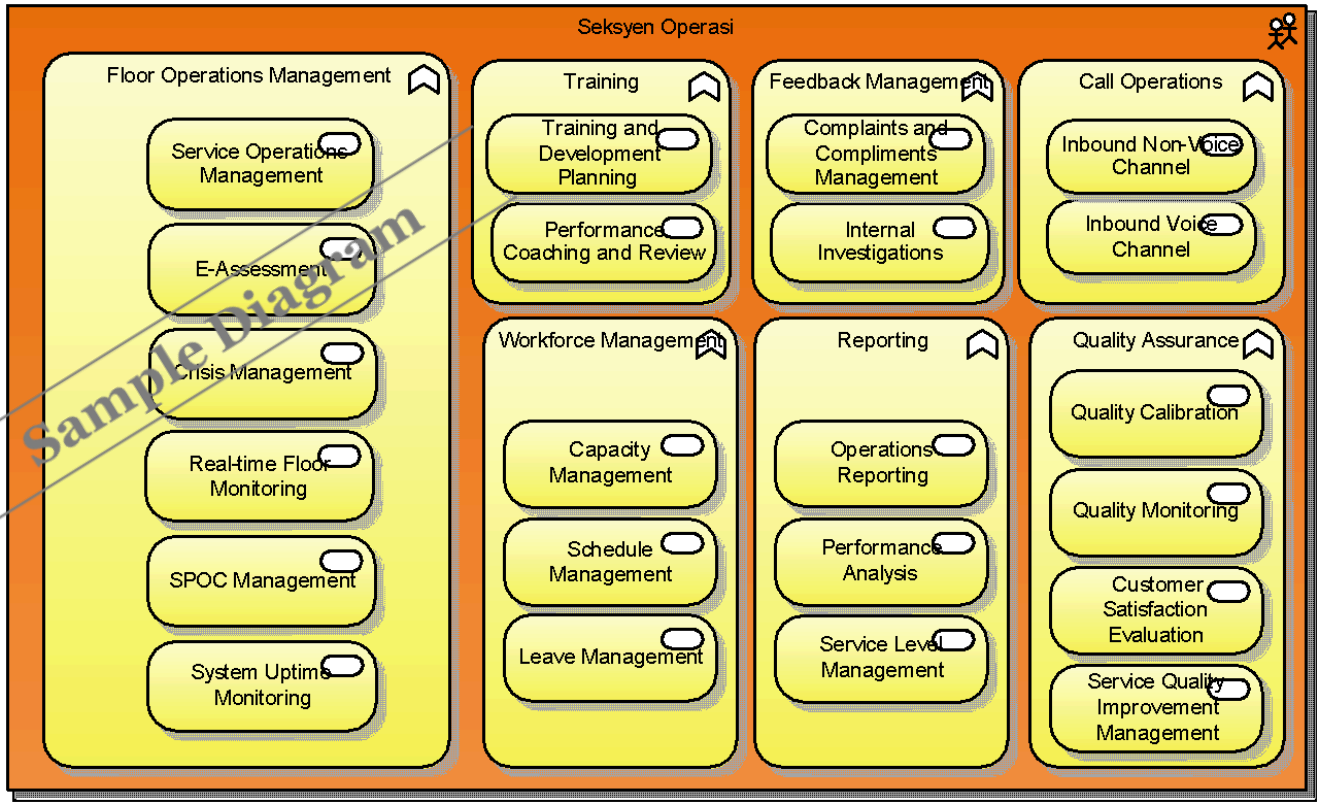

Figure 5: Example Agency Business Functions and Services

6.3. Capability Architectures

Capability Architectures intend to provide a detailed description on how the agency can realise the architecture vision and requirements. Capability Architectures attempt to provide an overview of the current capabilities, the target/required capabilities and enables individual tasks or projects to be organised within managed work packages.

7. References

7.1. Overview

The reference architecture section contains all reference materials used in the development of architectures. The documentation of these reference architectures are meant to serve as a single source of reference for any future architectural development requirements. These reference architectures may constantly be reviewed and updated depending on the business, operations and compliance requirements.

8. Governance Log

8.1. Overview

The Governance Log stores shared information that is related to the governance of ongoing projects. These information sets provide an audit trail of key decisions made during projects which enables project progress to be tracked, provide information to stakeholders and support future architecture development.

8.2. Decision Log

The decision log intends to document all significant decisions related to the development and discussion of architectural requirement(s), discover(ies), implementation(s) and issue(s) etc. made during the course of the project. These decisions are documented as described in Table 6: Decisions Log*Table 6 to provide a complete historical trail of any decisions made collectively by the architects.*

Table 1: Decisions Log

ID	Decision Required	Raised By	Date Raised	Decision Status	Decision Outcome	Date Made	Made By	Commu-ni cate to

8.3. Compliance Assessments

Compliance assessments ensure that the project adheres to a set of defined architecture standards. This is typically performed during formal review sessions at key milestones of a project.

Table 2: Compliance Assessment

Project Overview	Progress Overview	Completed Architecture Checklists	Standards Compliance Assessment	Recommended Actions

8.4. Capability Assessments

Prior to the development and implementation of any architecture plans, capability assessments are necessary to understand the baseline capabilities. Baseline capabilities are then matched with the required capabilities of the target architecture to identify any capability gaps. The capability assessment identifies the capabilities based on the roles as identified. These information can be documented in Table 8.

Table 3: Capability Assessment

Capability Requirement	Architecture Domain	Architecture Role	Rating (1 – least critical to 5 – most critical)	Recommended Actions

8.5. Calendar

The calendar contains the schedule of recent and ongoing projects and details formal review sessions for each of the projects. Table 9 provides timeline and high-level project details to the execution of the various project(s) identified within the agency's architecture work.

Table 4: Project Calendar

Project Overview	Progress Overview	Completed Architecture Checklists	Standards Compliance Assessment	Recommended Actions

8.6. Project Portfolio

The project portfolio intends to document any ongoing project(s) that may require the enterprise architect to take into consideration while documenting the Current Architecture and designing the Target Architecture. Key activities and changes to the existing architecture would be identified and documented under the project portfolio as described in Table 2 to capture the architectural changes within the respective domains.

Table 5: Project Portfolio

Project Name	Project Description	Architectural Scope			
		Business Architecture	*Data Architecture*	*Application Architecture*	*Technology Architecture*

8.7. Performance Measurement

Upon the definition of the architecture functions, part of the project governance would include the performance measurement log as described inTable 11. The Performance Measurement Log intends to document related performance and criteria as defined in the architecture functions. This provides an avenue to track, monitor and measure performance against the intended benefits realisation.

Table 6: Performance Measurement

Criteria	Description	Measurement Method	Rating (1 – least effective to 5 – most effective)	Additional Comments

9. Next Steps

9.1. MyGovEA Methodology Cycle

This document is intended as an input to Stage 1 (*Initiate*) of the MyGovEA Methodology as illustrated in Figure 5 below. This document contains relevant information that will be utilised in the production of the Stage 1 (*Initiate*) deliverables.

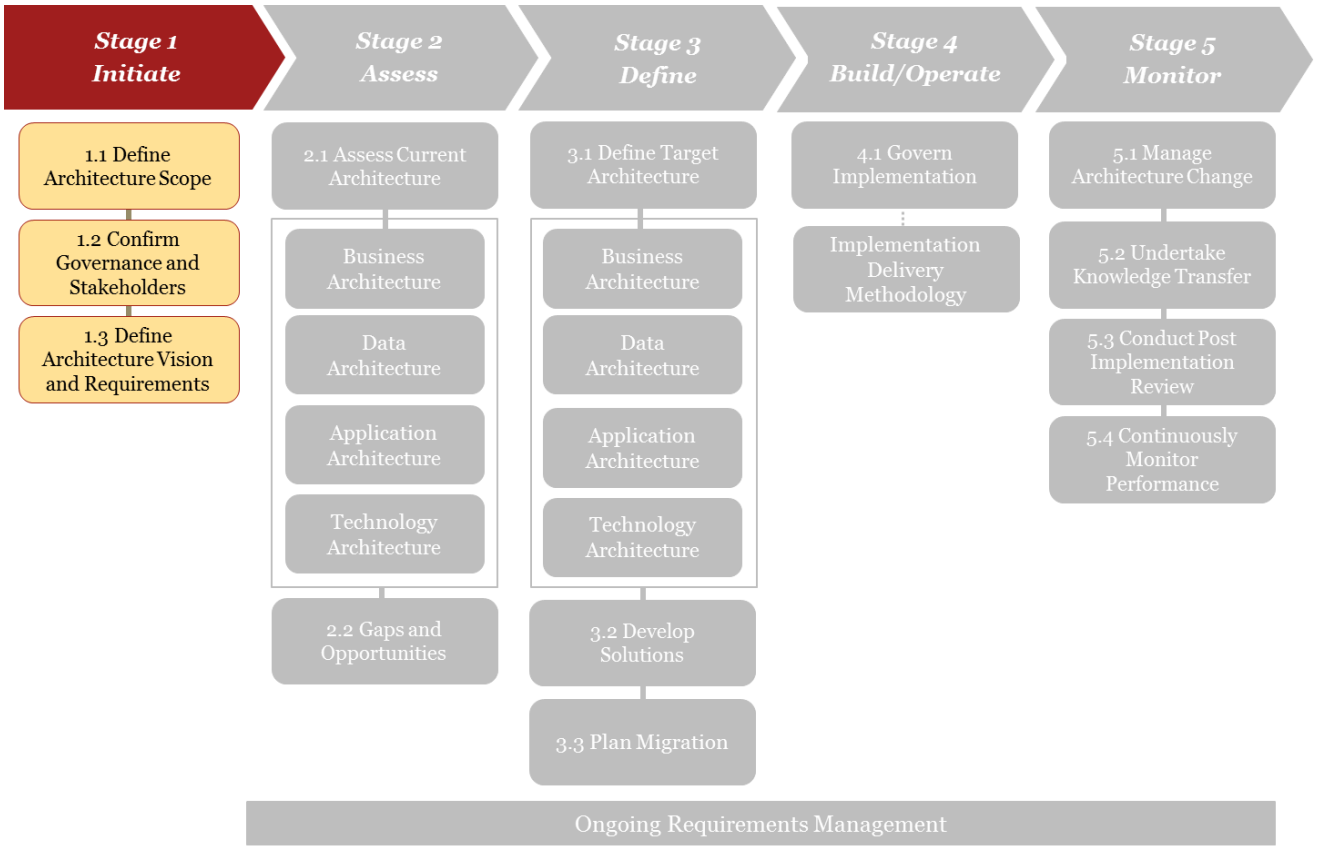

Figure 6: MyGovEA Methodology

9.2. Next Steps

Upon the completion of this document, the following steps are the subsequent activities that need to be taken in order to realise the architecture work that has been defined here:

a) Using the Architecture Repository document as a supplementary input to preparing the Stage 1 deliverable documents.

b) Develop and obtain approval for the Statement of Architecture Work document; and

c) Develop the Draft Architecture Requirements document.