



1 Government Enterprise Architecture (1GovEA) Compliance Assessment Report

<Month, Year>

Project: <Project Name>

Agency: <Agency Name>

Reference Code: S4-R011

Document History

Document Information

This section provides a summary of information for this document.

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Distribution List

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

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Document Version History

This section provides a formal log of changes/ revisions to this document that has been approved by the Central 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 |
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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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Table of Contents

| | |
|--|-------------------------------|
| 1. Project Overview | 6 |
| 1.1 Agency Overview | 6 |
| 1.2 Project Outline | 6 |
| 1.3 Project Objectives | 6 |
| 1.4 Scope of Project | 6 |
| 2. Document Purpose | 7 |
| 3. Project Status | 8 |
| 3.1 Overview of Target Architecture | 9 |
| 3.2 Overview of Implemented Architecture | 9 |
| 4. Architecture Requirements | 11 |
| 4.1 Overview of Architecture Requirements | 11 |
| 4.2 Overview of Architecture Risks and Issues | 11 |
| 5. Completed Architecture Checklists | 12 |
| 5.1 Hardware and Operating System Checklist | 13 |
| 5.2 Software and Middleware Services Checklist | 14 |
| 5.3 Applications Checklist | 15 |
| 5.4 Information Management Checklist | 17 |
| 5.5 Security Checklist | 19 |
| 5.6 System Management Checklist | 20 |
| 5.7 System Engineering Checklists | 21 |
| 5.8 Methods and Tools Checklist | 22 |
| 6. Conclusion | <u>25</u>24 |
| 7. Next Steps | <u>26</u>25 |
| 7.1 1GovEA Methodology Cycle | <u>26</u> 25 |
| 7.2 Next Steps | <u>26</u> 25 |

List of Tables

| | |
|--|-------------------------|
| Table 1: Hardware and Operating System Checklist (Example) | 13 |
| Table 2: Software and Middle Services Checklist (Example) | <u>15</u> 14 |
| Table 3: Applications Checklist (Example) | <u>16</u> 15 |
| Table 4: Information Management Checklist (Example) | 18 |
| Table 5: Security Checklist (Example) | 19 |
| Table 6: System Management Checklist (Example) | 20 |
| Table 7: System Engineering Checklist (Example) | 21 |
| Table 8: Methods and Tools Checklist (Example) | 22 |

List of Figures

| | |
|---|-------------------------|
| Figure 1: Overview of Project | 8 |
| Figure 2: Overview of Project Status | 9 |
| Figure 3: Overview of Target Architecture | 10 |
| Figure 4: Architecture Checklist | 13 |
| Figure 5: 1GovEA Methodology | <u>26</u> 25 |

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. Document Purpose

The Compliance Assessment Report governs the target architecture that is implemented to ensure that the original Architecture Vision including the objectives and goals for the architecture are appropriately realised. This documentation also ensures that any lessons learnt from the architecture implementation process are included back into the process. Periodic compliance reviews via Quality Gate Reviews on the implementation progress of the architecture initiative(s) provides a structure approach to ensure that the architecture design and implementation progresses in-line with the strategic and architecture objectives.

The Compliance Assessment is conducted via assessing a checklist consisting of hardware, operating system, software services and middleware, information management, security, system management, system engineering, methods and tools. These checklists will be used as a mechanism to track the compliance of the implementation against the designed target architecture.

This deliverable template is designed to guide the architects on the general format and content required within the deliverable produced while executing the 1GovEA 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. Project Status

This section captures the overview of the project’s current implementation status and the reason why this Compliance Assessment Report is being produced, for example because a Quality Gate Review milestone has been reached on the implementation timeline.

The project timeline and key milestones achieved since last reporting period, planned activities for next reporting period, unresolved issues, dependencies and project risk should be documented here.



Figure 1: Overview of Project



Figure 2: Overview of Project Status

3.1 Overview of Target Architecture

This section captures the high level overview and objectives of the target architecture design from the Target Architecture Definition Document,

3.2 Overview of Implemented Architecture

This section captures an overview of the target architecture currently implemented to date and which is subject to this Compliance Assessment Report. This section should be used in the event that this Compliance Assessment Report is conducted prior to the completion of the implemented target architecture.

Sample Diagram



Figure 3: Overview of Target Architecture

4. Architecture Requirements

This section provides an overview of the architecture requirements and risks, issues as well as dependencies that have been documented in deliverables produced prior to this. To populate this section, authors should download the most up-to-date version of the following documents from the central repository:

- a) Architecture Requirements*
- b) Risk, Issues and Dependencies Log*

Relevant information from these documents will then be used as a basis to building the Architecture Compliance Checklists in Section 5.

4.1 Overview of Architecture Requirements

This section documents an overview of the requirements of the target architecture has been implemented to date. This should be extracted from the latest version of the Architecture Requirements deliverable produced in Stage 1 of the 1GovEA Methodology.

4.2 Overview of Architecture Risks and Issues

This section documents an overview of the risks, issues and dependencies associated with the target architecture that has been implemented to date. This should be extracted from the latest version of the Risk, Issues and Dependencies Log for this architecture initiative.

5. Completed Architecture Checklists

This section should include a wide range of typical questions to form a checklist used in conducting Architecture Compliance reviews.

The following sub-sections provide examples of areas of the architecture to be reviewed and in them, example questions that can be used in the corresponding Architecture Compliance Review checklist. These questions are provided by The Open Group (source: <http://pubs.opengroup.org/architecture/togaf9-doc/arch/chap48.html>).

Industry practices, architecture principles or security practices that were embedded in the target architecture design should be included in this section for future reference as a checklist to ensure that these elements exist and continue to exist within the implemented architecture.

When developing these checklists, agencies should tailor the questions and thus, the following sub-sections, according to the architecture that has been implemented to date. The checklist items should be drawn up from comparison to the target architecture and architecture requirements of the architecture implemented to date as described in Sections 3 and 4 (derived from the Target Architecture Definition and Architecture Requirements documents). The checklists should also focus on areas that are of high risk of non-compliance and that are expected to be issues impacting the overall implementation of the architecture.

As a general guideline, for each question in the checklist, the author should:

- *Understand the question itself;*
- *Understand the principle behind it;*
- *Understand what to look for in the (expected) responses;*
- *Ask subject experts for their views;*
- *Fix the checklist questions to be used; and*
- *Consider the need to provide feedback to the Agency Office of the Architect Team.*

If applicable, the following sub-sections can be further broken down into categories/ areas that are being reviewed.

Sample Diagram

| Hardware and Operating System Checklist | | Comments |
|---|--|----------|
| <input type="checkbox"/> | What system capabilities approach? | |
| <input type="checkbox"/> | How does the project in its lifecycle? | |
| <input type="checkbox"/> | Have issues have been identified or analyzed that the project believes will impact the project? | |
| <input type="checkbox"/> | Have evaluations of hardware and operating systems for networks, servers, and end-user devices? | |
| <input type="checkbox"/> | What system capabilities will involve high-volume and/or high-frequency data transfers? | |
| <input type="checkbox"/> | How does the system design impact or involve end-user devices? | |
| <input type="checkbox"/> | What is the quantity and distribution (regional and global) of usage, data storage, and processing? | |
| <input type="checkbox"/> | What applications are <u>affiliated</u> with your project by similarities in data, application services, etc.? To what degree is data <u>affiliated</u> with your project? | |
| <input type="checkbox"/> | What hardware and operating system choices have been made before functional design of key elements of the system? | |

Figure 4: Architecture Checklist

5.1 Hardware and Operating System Checklist

This section contains the hardware and operating system checklist. This checklist verifies the initiatives or actions to ensure that they are in line with the initial design for the areas of hardware (e.g. servers, switches, storage, firewall) and operating systems (e.g. Desktop, laptop, server operating systems, storage operating systems). This section develops the checklist based on the identified target Technology Architecture. The scope is bound by the scope of architecture work being performed.

Table 1: Hardware and Operating System Checklist (Example)

| Question | Level of Compliance | Level of Impact | Reviewer | Date of Review | Comments |
|---|---------------------|-----------------|----------|----------------|----------|
| What system capabilities will involve high-volume and/or high-frequency data transfers? | | | | | |

| Question | Level of Compliance | Level of Impact | Reviewer | Date of Review | Comments |
|--|---------------------|-----------------|----------|----------------|----------|
| <i>Have you performed a financial analysis of the supplier?</i> | | | | | |
| <i>Have you made commitments to any supplier?</i> | | | | | |
| <i>What applications are affiliated with your project by similarities in data, application services, etc.?</i> | | | | | |
| <i>What is the quantity and distribution (regional and global) of data usage, storage, and processing?</i> | | | | | |
| <i>What hardware and operating system choices have been made before functional design of key elements of the system?</i> | | | | | |

5.2 Software and Middleware Services Checklist

This section contains the software and middleware services checklist. This checklist verifies the initiatives or actions to ensure that they are in line with the target architecture design for the areas of software services and middleware services such as monitoring availability, health, utilisation rates, issue log and bug tracking. This section develops the checklist based on the identified target Application and Technology Architecture. The scope is bound by the scope of architecture work being performed.

Table 2: Software and Middle Services Checklist (Example)

| Question | Level of Compliance | Level of Impact | Reviewer | Date of Review | Comments |
|---|---------------------|-----------------|----------|----------------|----------|
| <i>How are error conditions defined, raised, and propagated between application components?</i> | | | | | |
| <i>How are the number of round-trips between client and server calls, particularly for out-of-process calls, and when complex data structures are involved minimised?</i> | | | | | |
| <i>To what extent are the objects are created, used, and destroyed versus re-used through object pooling.</i> | | | | | |
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5.3 Applications Checklist

This section contains the application checklist. This checklist verifies the initiatives or actions to ensure that they are in line with the target architecture design in terms of applications such as operating systems, web browsers, word processing and database applications. This section develops the checklist based on the identified target application architecture (across all Business, Data, Application and Technology domains). The scope is bound by the scope of architecture work being performed.

Table 3: Applications Checklist (Example)

| Question | Level of Compliance | Level of Impact | Reviewer | Date of Review | Comments |
|---|---------------------|-----------------|----------|----------------|----------|
| <i>How are error conditions defined, raised, and propagated between application components?</i> | | | | | |
| <i>How are the number of round-trips between client and server calls, particularly for out-of-process calls, and when complex data structures are involved minimised?</i> | | | | | |
| <i>To what extent are the objects are created, used, and destroyed versus re-used through object pooling.</i> | | | | | |
| <p><i>Are any of the capabilities required provided by standard products supporting one or more line-of-business applications?</i></p> <p><i>Example:</i></p> <ul style="list-style-type: none"> • <i>Business acquisition applications</i> - <i>Sales and marketing</i> • <i>Engineering applications</i> - <i>Computer-aided design</i> | | | | | |

| Question | Level of Compliance | Level of Impact | Reviewer | Date of Review | Comments |
|---|---------------------|-----------------|----------|----------------|----------|
| <ul style="list-style-type: none"> - <i>Computer-aided engineering</i> - <i>Mathematical and statistics analysis</i> • <i>Supplier management applications</i> - <i>Supply chain management</i> - <i>Customer relationship management</i> • <i>Manufacturing applications</i> - <i>Enterprise Resource Planning (ERP) applications</i> - <i>Manufacturing execution systems</i> <p><i>Manufacturing quality</i></p> | | | | | |
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5.4 Information Management Checklist

This section contains the information management checklist. This checklist verifies the initiatives or actions to ensure that they are in line with the target architecture design for the areas of information management such as data values, definition, security, hosting, common services, and access methods.

This section develops the checklist based on the identified target architecture across all of the Business, Data, Application and Technology Domain). The scope is bound by the scope of architecture work being performed.

Table 4: Information Management Checklist (Example)

| Question | Level of Compliance | Level of Impact | Reviewer | Date of Review | Comments |
|--|---------------------|-----------------|----------|----------------|----------|
| <i>Is a standardised process used in the management and use of data?</i> | | | | | |
| <i>Are the data quality requirements required by the business user met?</i> | | | | | |
| <i>Have data owners been identified to be responsible for common data definitions, eliminating unplanned redundancy, providing consistently reliable, timely, and accurate information, and protecting data from misuse and destruction?</i> | | | | | |
| <i>Are there data protection mechanisms to control access to data from external sources that temporarily have internal residence within the enterprise</i> | | | | | |

5.5 Security Checklist

This section contains the security checklist. This checklist verifies the initiatives or actions to ensure that they are in line with the target architecture design for the areas of security such as awareness, identification process, authorisation process, access control, information protection audit and external access. This section develops the checklist based on the identified target architecture across all of the Business, Data, Application and Technology Architecture Domains. The scope is bound by the scope of architecture work being performed.

Table 5: Security Checklist (Example)

| Question | Level of Compliance | Level of Impact | Reviewer | Date of Review | Comments |
|---|---------------------|-----------------|----------|----------------|----------|
| <i>Are the corporate security policies and guidelines designed the latest versions?</i> | | | | | |
| <i>Are all of the relevant computing security compliance and risk acceptance processes been made aware?</i> | | | | | |
| <i>Are documentations that contain sensitive data and require additional protection labelled and managed appropriately?</i> | | | | | |
| <i>Do user accounts and passwords comply with corporate policies?</i> | | | | | |
| | | | | | |

5.6 System Management Checklist

This section contains the system management checklist. This checklist verifies the initiatives or actions to ensure that they are in line with the target architecture design for the areas of system management. This section develops the checklist based on the identified target Application and Technology Architecture. The scope is bound by the scope of architecture work being performed.

Table 6: System Management Checklist (Example)

| Question | Level of Compliance | Level of Impact | Reviewer | Date of Review | Comments |
|--|---------------------|-----------------|----------|----------------|----------|
| <i>Are multiple software and/or data versions allowed in production?</i> | | | | | |
| <i>Are there appropriate process or tools in place to check that the system is properly installed?</i> | | | | | |
| <i>Is the system capable of displaying its own error message to service personnel?</i> | | | | | |
| | | | | | |
| | | | | | |

5.7 System Engineering Checklists

This section contains the system engineering (the design and management of complicated ICT projects over the defined lifecycle) checklist. This checklist verifies the initiatives or actions to ensure that they are in line with the target architecture design for the areas of system engineering. This section develops the checklist based on the identified target application and technology architecture. The scope is bound by the scope of architecture work being performed.

Table 7: System Engineering Checklist (Example)

| Question | Level of Compliance | Level of Impact | Reviewer | Date of Review | Comments |
|---|---------------------|-----------------|----------|----------------|----------|
| <i>Is there a standards adherence list for the system architecture?</i> | | | | | |
| <i>Are functions other than presentation performed on the user device?</i> | | | | | |
| <i>Is this software currently available?</i> | | | | | |
| <i>Can/do the presentation layer and application layers run on separate processors?</i> | | | | | |
| <i>Can/do the application layer and data access layer run on separate processors?</i> | | | | | |
| <i>Can this application be placed on an application server independent of all other applications? If not, explain the dependencies.</i> | | | | | |

| Question | Level of Compliance | Level of Impact | Reviewer | Date of Review | Comments |
|--|---------------------|-----------------|----------|----------------|----------|
| <i>Can additional parallel application servers be easily added? If so, what is the load balancing mechanism?</i> | | | | | |
| <i>Has the resource demand generated by the application been measured and what is the value? If so, has the capacity of the planned server been confirmed at the application and aggregate levels?</i> | | | | | |

5.8 Methods and Tools Checklist

This section contains the methods and tools checklist. This checklist verifies the initiatives or actions to ensure that they are in line with the target architecture design for the areas of tools and methods. This section develops the checklist based on the methodologies and tools used in the project. The scope is bound by the scope of architecture work being performed.

Table 8: Methods and Tools Checklist (Example)

| Question | Level of Compliance | Level of Impact | Reviewer | Date of Review | Comments |
|--|---------------------|-----------------|----------|----------------|----------|
| <i>Do metrics exist for the current way of doing business?</i> | | | | | |
| <i>Has the system owner created evaluation criteria that will be used to guide the</i> | | | | | |

| Question | Level of Compliance | Level of Impact | Reviewer | Date of Review | Comments |
|--|---------------------|-----------------|----------|----------------|----------|
| <i>project? Describe how the evaluation criteria will be used.</i> | | | | | |
| <i>Has research of existing architectures been done to leverage existing work? Describe the method used to discover and understand. Will the architectures be integrated? If so, explain the method that will be used.</i> | | | | | |
| <i>Do metrics exist for the current way of doing business?</i> | | | | | |
| <i>Are the methods documented and distributed to each team member?</i> | | | | | |
| <i>Were issues documented, rated, and associated to current processes? If not, how do you know you are fixing something that is broken?</i> | | | | | |
| <i>Were existing/planned process improvement activities identified and associated to current processes? If not, how do you know this activity is not in</i> | | | | | |

| Question | Level of Compliance | Level of Impact | Reviewer | Date of Review | Comments |
|---|---------------------|-----------------|----------|----------------|----------|
| <i>conflict with or redundant to other Statements of Work?</i> | | | | | |
| <i>Were issues documented, rated, and associated to current processes? If not, how do you know you are fixing something that is broken?</i> | | | | | |

6. Conclusion

This section provides a comprehensive summary of the results of the Compliance Assessment exercise conducted on the implemented architecture. This should detail any areas of non-compliance and the corresponding remedial actions that are required to address them.

7. Next Steps

7.1 1GovEA Methodology Cycle

This document is intended as an output of Stage 4 (*Build/ Operate*) of the 1GovEA Methodology as illustrated in ~~Figure 5~~ below. This document contains relevant information that will be utilised in the production of the Stage 5 (*Monitor*) deliverables.

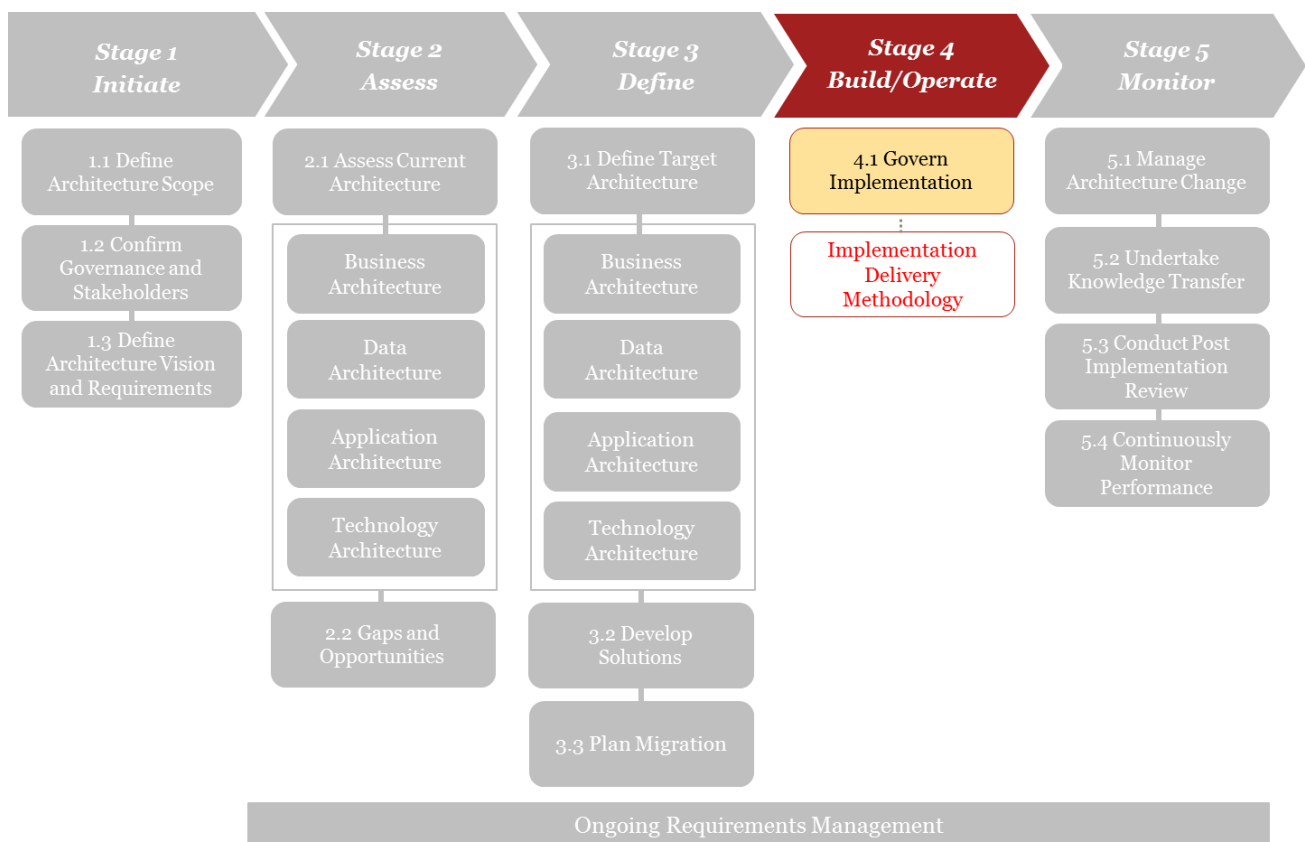


Figure 5: 1GovEA Methodology

7.2 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:

- Review and obtain approval of the Compliance Assessment Report; and
- Once approved, proceed to Stage 5: Monitor.