

OMB Enterprise Architecture Assessment v1.0 Guidelines

Introduction

Version 1.0 of the OMB Enterprise Architecture Assessment Framework has been created to baseline the state of enterprise architecture (EA) across the Federal government. Version 2.0 of this assessment is being developed from agency feedback and discussions with the Chief Information Officers Council's (CIOC) Architectural and Infrastructure Committee (AIC), and will be released during the summer of 2004. Version 2.0 enhancements will include further clarifications and assessment criteria delineations.

The Office of Management and Budget is focused on helping agencies improve their EA programs so that they will benefit from the results of using EA as a strategic planning tool. OMB is striving to help agencies link departmental-level EA throughout their operations, so that its value is reflected in both internal operational decision-making, as well as the identification of government-wide common solutions for improved service to citizens. The department EA is a basic building block to support the population of the Federal Enterprise Architecture (FEA). Through the FEA Program, OMB provides a framework, reference models, and a set of guiding principles to assist agencies with:

- Effectively delivering mission critical programs and common services
- Identifying collaboration opportunities to eliminate redundant expenditures
- Aligning technology with business strategy

OMB's Assessment Objective

The OMB Enterprise Architecture Assessment Framework is designed to help each agency assess the *capability* of its EA program; it complements the General Accounting Office (GAO) EA Management Maturity Framework, which assesses EA program *capacity*. This assessment is intended to help agencies see the current state of their EAs and discuss with OMB the continuous improvement and integration of the EA into their decision-making process. By proactively applying the assessment, agencies can prevent (or identify and address) potential EA development and application issues as early as possible. As a result, EA's positive impact on IT investment decision-making will continue to grow stronger.

The OMB assessment looks at the following two capability facets of an agency's EA program:

1. Maturity of the agency's EA
 - EA work product development
 - Capability of the agency's EA program to provide specific investment recommendations as part of the agency's capital planning and investment control (CPIC) process
2. Integration of the agency's EA with the FEA
 - Reflection of the FEA reference models and principles of good architecture
 - Potential for intergovernmental collaboration on information technology (IT) solutions

In comparison to the GAO assessment, the OMB assessment framework primarily seeks to identify the extent to which an agency *has developed EA* that supports agency program performance by influencing IT planning and investment decisions, rather than on the structure and products within an agency's EA program.

Assessing Your Agency's Enterprise Architecture Capability

Assessment Structure

The Enterprise Architecture Assessment Framework contains four main capability assessment categories. These categories are derived from the CIO Council's *A Practical Guide to Federal Enterprise Architecture*, and are consistent with generally accepted EA best practices from both government and the private sector.

- **Change:** Assesses how well the EA facilitates the management of change. Using the specific criteria provided, an agency selects the level that best describes its EA's A) *architectural approach* and B) *strategic direction*.
- **Integration:** Assesses how well the EA ensures that interfaces, interoperation, information, and connectivity are standardized. Using the specific criteria provided, an agency selects the level that best describes its EA's A) *interoperability*, B) *data*, C) *business logic*, and D) *interface*.
- **Convergence:** Assesses how well the EA integrates the agency's IT as defined by the Technical Reference Model (TRM). Using the specific criteria provided, an agency selects the level that best describes its EA's A) *components*, B) *technical platform*, C) *performance*, and D) *security*.
- **Business Alignment:** Assesses how well the EA ensures alignment with the agency's strategic intent. Using the specific criteria provided, an agency selects the level that best describes its EA's A) *strategic goals* and B) *business target*.

For each assessment category, an agency can select from six possible levels that are aligned with specific criteria describing an EA. The Assessment Value levels range from 0 to 5, where Level 0 = "no evidence presented" and Level 5 = "IT planning is optimized through the EA." Each progressively higher level encompasses all criteria from the level(s) beneath it. The total for each section is rolled into a final Total Assessment Value.

Instructions for Use

Enterprise architectures systematically and completely define an organization's current baseline (As-Is) and target (To-Be) environments. Following is a list of materials that, collectively, can help an agency complete its assessment and maximize its ranking.

- Baseline, Target, and Transition Architecture documentation
- Agency and IT strategic plans
- Agency performance plans
- EA governance and management documents

- Capital planning & investment control (CPIC) documents
 - Information from agency EA review board proceedings
 - Other EA- and budget-related documentation your agency has developed
- Step A.** Review the assessment areas and corresponding criteria for each of the four EA review categories included in the EA Assessment Framework to determine which of your agency's EA artifacts will be required to best complete this assessment.
- Step B.** At the top of the assessment form, enter 1) the name of your agency or department, 2) the approximate date or dates on which the agency EA artifacts you are assessing were created, and 3) the date on which you are completing the assessment.
- Step C.** After reviewing the EA documentation obtained in **Step A**, determine which evaluation criteria statement most accurately describes the documented state of your agency's EA for each assessment area.
- Step D.** In the Assessment Value column, insert the value (0 through 5) of the level that corresponds to your selection. **Important: Only insert the value for the level which you meet ALL criteria outlined.**
- Step E.** In the Rationale column, insert language which briefly describes the rationale behind your score selection.
- Step F.** After you have inserted a value and rationale for each assessment area, a Section Value will be calculated. After you have completed this step for each section, a value will be calculated in the Total Assessment Value section of the framework. This Total Assessment Value is your assessment score. Save the .pdf file for your records and for submittal to OMB¹.
- Step G.** Provide the following information to the FEA PMO via e-mail at support@feapmo.gov by May 15, 2004:
- i. Your agency point of contact and contact information.
 - ii. Your EA Assessment using Version 1.0 of the OMB Enterprise Architecture Assessment Framework.
 - iii. A complete inventory listing of all EA documentation used to complete the May 15, 2004 Assessment.
 - iv. A copy of all your agency's current EA program documents and artifacts unless previously submitted to OMB during the 2005 budget submission process.

If you have any comments or questions about how to complete, save or submit this assessment, please contact support@feapmo.gov or contact the FEA PMO at (202) 395-0379.

Definitions

The following terminology is included within the EA Assessment Framework. Definitions for these terms are as follows:

¹ The EA Assessment Framework utilizes Adobe Acrobat™. In order to save your values within Acrobat, you must be using Acrobat Writer 5.0 or higher. You cannot save your values within Acrobat if you are only running Acrobat Reader. To obtain alternate formats (e.g. – MS Excel™), please contact support@feapmo.gov.

Component – A self-contained business process or service with pre-determined functionality that may be exposed through a business or technology interface.

Information Value Chain Model - A set of artifacts within the EA that describes how the enterprise converts its data into useful information.

Node Diagram – Diagrams depicting the interdependencies between elements of the architecture. Node diagrams can be used to describe the interaction of business functions with technology components, the relationship of performance objectives to elements of the architecture, and other relationships.

Patterns - Frequently occurring combinations of business and technical elements that can be used to deliver re-usable business services across the enterprise.

Shared Services - Architectural elements (business processes and/or technology components) that are used by multiple organizations within the enterprise.

Agency Enterprise Architecture Assessment Framework v1.0

Agency:	
Agency EA Date:	
Evaluation Date:	

Change	Description: Facilitating and managing change to any aspect of the enterprise.						Assessment Value	Rationale
	No evidence presented	EA is initial, informal, and ad-hoc	Formal but basic, follows some best practices	EA is beginning to be operationalized across the enterprise (i.e. part of transition, CPIC, budget)	EA is operationalized and provides performance impact to business operations	IT planning is optimized through the EA		
	Level 0	Level 1	Level 2	Level 3	Level 4	Level 5		
A. Architectural Approach	No evidence presented	EA identifies an architectural approach. (framework i.e. Zachman, c4isr, etc)	Key stakeholder business drivers are documented.	The transition plan describes some portions of the changes needed to transition from As-Is to target; and information value chain model (operational views).	Process for identifying, managing, and closing gaps between target and current state is well documented within the EA.	The EA demonstrates a relationship of the transition, target, and gap closure to investment planning and execution.		
B. Strategic Direction	No evidence presented	EA demonstrates agency Head and stakeholder buy-in is documented, EA demonstrates management structure and control is established.	The EA defines an architectural processes, and presents a baseline architecture.	The EA defines a target architecture. EA defines change and risk management strategy or approach.	The EA defines a transition and sequencing strategy and plan. EA defines a communications strategy.	The EA demonstrates application of the EA for purposes of creating and maintaining investment programs. The EA demonstrates an implemented process for managing changes and updates to the EA.		
Section Value								

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Integration	Description: Realizing the business rules are consistent across the organization, the data and its use are certain, interfaces and information flow are standardized, and the connectivity and interoperability are managed across the enterprise.						Assessment Value	Rationale
	No evidence presented	EA is initial, informal, and ad-hoc	Formal but basic, follows some best practices	EA is beginning to be operationalized across the enterprise (i.e. part of transition, CPIC, budget)	EA is operationalized and provides performance impact to business operations	IT planning is optimized through the EA		
	Level 0	Level 1	Level 2	Level 3	Level 4	Level 5		
A. Interoperability	No evidence presented	Interoperability standards are defined at a conceptual basis (list of standards that are non-proprietary, i.e. patterns, web services, etc).	Interoperability standards are defined at the business function level, and are aligned to the TRM and SRM.	Interoperability standards are defined through patterns and are related to business functions. Business functions are aligned to components and services at the enterprise level.	Interoperability and sharing of information is one of the backbones of the target architecture.	Using common interoperability standards, the EA demonstrates the ability to link and integrate common technologies and business processes.		
B. Data	No evidence presented	Data architecture is broadly defined and not linked to other portions of the architecture.	Data relationships, interdependencies, and definitions are defined at a conceptual level.	Common and defined approach to integrating data with business processes and mission priorities is defined and used throughout the EA.	The target architecture reflects a transition plan and judgment on the data required for the future state.	EA demonstrates its ability to increase integration and promote the re-use of data within the enterprise and across other agencies. (linkage of data to common components, business functions (BRM)).		
C. Business Logic	No evidence presented	Standard business rules (logic) are broadly defined and conceptual in nature.	Business rules are integrated and described for portions of the architecture.	Business rules are integrated and described throughout all portions of the architecture.	The transition strategy describes the changes required to business rules.	The EA demonstrates the results of viewing common business rules across the enterprise and across other agencies (integrated with the SRM).		
D. Interface	No evidence presented	Interface components and requirements are broadly (conceptually) defined.	Detailed external interface descriptions are contained within the EA.	Some form of a "node" diagram depicts inter-relationships between interfaces and business functions.	Interface descriptions and "node" diagrams are integrated with performance measures. Interfaces are represented at the enterprise and function levels.	The EA demonstrates the establishment of common components that are integrated through well defined interface requirements.		
Section Value								

Convergence	Description: Striving toward a standard IT product portfolio as contained in the Technical Reference Model (TRM).						Assessment Value	Rationale
	No evidence presented	EA is initial, informal, and ad-hoc	Formal but basic, follows some best practices	EA is beginning to be operationalized across the enterprise (i.e. part of transition, CPIC, budget)	EA is operationalized and provides performance impact to business operations	IT planning is optimized through the EA		
	Level 0	Level 1	Level 2	Level 3	Level 4	Level 5		
A. Components	No evidence presented	The EA defines components at a high level of definition.	The EA defines components and shared services throughout the enterprise.	The EA uses services, components, and interoperability relationships to describe portions of the architecture.	The EA is described using services, components, and interoperability relationships through all artifacts and is described across all relationships.	The EA uses services, components, and interoperability relationships to describe transition and investment decision processes and to present a service/component enabled target architecture.		
B. Technical Platform	No evidence presented	EA contains TRM definitions only.	EA defines a high-level linkage to services and technology.	EA defines and integrates TRM with a view of services, which begins to show patterns.	EA provides an inventory of TRM and services, with a view towards identifying redundant TRM and service components (inter-relationships are described).	EA links all artifacts to TRM and services, and provides the ability to view redundancy across all EA products based on any TRM or service component.		
C. Performance	No evidence presented	EA conceptually defines performance measures.	EA links performance measures to some portions of the architecture segments.	EA defines detailed performance measures and links them to service and technical portions of the architecture.	EA defines detailed performance measures and links them to all technical and service layers of the architecture (clear relationship between performance measures and technical and service layers).	EA defines detailed performance measures, links them to all technical and service layers, and integrates performance measures with transition and investment planning		
D. Security	No evidence presented	Security standards are conceptually defined within the EA.	EA aligns security standards to the TRM.	Security standards are integrated within portions of the components/ applications/and technologies.	Security standards are tightly defined within all levels of components/applications / technologies.	Security standards are tightly defined and are presented as part of the transition planning and investment analysis portions of the EA.		
Section Value								

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Business Alignment	Description: Ensuring the practices of the enterprise are aligned with strategic management intent.						Assessment Value	Rationale
	No evidence presented	EA is initial, informal, and ad-hoc	Formal but basic, follows some best practices	EA is beginning to be operationalized across the enterprise (i.e. part of transition, CPIC, budget)	EA is operationalized and provides performance impact to business operations	IT planning is optimized through the EA		
	Level 0	Level 1	Level 2	Level 3	Level 4	Level 5		
A. Strategic Goals	No evidence presented	EA contains high-level strategic goals.	EA captures and depicts facts about functions, processes, and linkages/relationships or interdependencies.	Describes and depicts the linkage between internal business components and the achievement of business and customer-centric outcomes.	Establishes manageable and measurable performance objectives and demonstrate improved resource allocation decisions.	Business-IT value chain analysis has been performed (i.e. - Redundant investments and common business services identified).		
B. Business Target	No evidence presented	The EA defines conceptual target business functions (BRM).	Establishes a common vocabulary for describing the business context of the enterprise.	Describes a business vision which links the business vision to technology and target architecture.	The EA describes comparative determinations of which investments/programs/organizations are more efficient and effective through an alignment analysis.	The EA demonstrates the results or changes to business operations through alignment of investments and programs. (I.e. successful implementation of portions of the target architecture)		
Section Value								
Total Assessment Value:								