Federal Segment Architecture Methodology Overview

Background

In January 2008, the Federal Segment Architecture Working Group (FSAWG) was formed as a sub-team of the Federal CIO Council's Architecture and Infrastructure Committee (AIC). The FSAWG consists of federal agency architects who volunteered to leverage existing enterprise architecture (EA) best practices to develop a standard methodology for creating and using segment architectures. The FSAWG developed the Federal Segment Architecture Methodology (FSAM), a step-by-step process that includes best practices from across the federal EA community. The FSAM features easy-to-use templates that expedite architecture development and maximize architecture use. The FSAM includes step by step guidance based on business-driven, results-oriented architecture.

According to the Office of Management and Budget (OMB) Federal Enterprise Architecture (FEA) Practice Guidance, segment architecture is a "detailed results-oriented architecture (baseline and target) and a transition strategy for a portion or segment of the enterprise." The FSAM supports all three segment types as defined in the OMB FEA Practice Guidance: core mission area, business service, and enterprise service segments. According to the OMB FEA Practice Guidance:

A core mission area segment represents a unique service area defining the mission or purpose of the agency. Core mission areas are defined by the agency business model (e.g., tactical defense, air transportation, energy supply, pollution prevention and control, and emergency response).

A business service segment includes common or shared business services supporting the core mission areas. Business services are defined by the agency business model and include the foundational mechanisms and back office services used to achieve the purpose of the agency (e.g., inspections and auditing, program monitoring, human resource management, and financial management).

An enterprise service segment includes common or shared IT services supporting core mission areas and business services. Enterprise services are defined by the agency service model and include the applications and service components used to achieve the purpose of the agency (e.g., knowledge management, records management, mapping/GIS, business intelligence, and reporting).

The FSAM consists of process steps for developing a core mission area segment architecture. The FSAM also includes guidance for tailoring the approach to develop business service and enterprise service segment architectures.

The FSAM is based on the principle that segment architecture development should be driven by segment leadership . FSAM is a scalable and repeatable process designed to help architects engage segment leaders to deliver value-added plans for improved mission delivery. Specifically, FSAM includes guidance to help architects establish clear relationships among strategic goals, detailed business / information management requirements, and measurable performance improvements within the segment. The FSAM helps architects ensure that a well constructed and defensible plan of action is developed in partnership with segment leaders.

The FSAWG members recognized that differences between individual segments and organizations would require FSAM to be flexible and extensible. The FSAWG members were careful to consider types of architectures as well as the need for agencies to develop and implement segment architectures that

reflect their unique mission requirements and organizational cultures. Although the FSAM is prescriptive, it has been designed to allow organization and segment specific adaptations. For example, although templates are included in the FSAM, these templates can be modified or tailored to the specific needs of the organization or segment using the FSAM guidance. As a further benefit to architects, the FSAM provides suggested analytical techniques designed to conform to segment reporting requirements as identified by the OMB FEA Program Management Office (PMO).

Top-Level Overview of the FSAM

The FSAM top level consists of five process steps that help architects identify and validate the business need and scope of the architecture, define the performance improvement opportunities within the segment, and to define the target business, data, services, and technology architecture layers required to achieve the performance improvement opportunities. The FSAM process steps conclude with the creation of a modernization blueprint document that includes a transition sequencing plan for using and implementing the segment architecture. The top level FSAM process steps are shown in Figure 1.





The OMB FEA Practice Guidance requires each agency to prioritize its segments and select a segment to architect. Once this is completed, the agency's architects can leverage the FSAM to work with segment leadership to assign executive sponsorship, ensure participation of business owners, and develop a business-owner-approved segment architecture blueprint. Each of the FSAM process steps is important in the development of a complete and actionable segment architecture. In order for the segment architecture to be "actionable", it must include specific, measurable milestones and deliverables that, once achieved, will lead to the targeted performance improvements. The five FSAM process steps are:

1. Determine Participants and Launch the Project: The architect leverages the guidance in this process step to engage with key stakeholders to establish the segment governance framework, validate the business owner(s) for the segment, formally appoint an executive sponsor and a core team, and establish the purpose statement to guide the architecture development. This

process step also includes guidance for introducing a solid project management foundation for the segment architecture development effort with the creation of a project plan and communications strategy. Key questions addressed within this process step are similar to those that one might normally ask when initiating a project:

- What is the governance framework for the development of the segment architecture?
- Does the business owner(s) understand the process and time commitment for developing the segment architecture?
- Who is the executive sponsor?
- Who is on the core team? Are these the right people?
- What is the specific purpose for developing this segment architecture?
- Is the charter approved to develop the segment architecture in the context of the purpose statement crafted by the business owner(s)?
- Is there a project plan and communications strategy for the development of the segment architecture?
- 2. Define the Segment Scope and Strategic Intent: The architect leverages the guidance in this process step to engage with key stakeholders to produce a segment scope and to define the strategic improvement opportunities for the segment. The architect then defines the segment *strategic intent* which consists of the target state vision, performance goals, and common / mission services and their target maturity levels. The subsequent FSAM process steps provide guidance for architects to align the architecture with the strategic intent to create a complete segment performance line-of-sight and to support achieving the target state vision. Key questions addressed within this process step include:
 - Based on the high-level problem statement, what are the strategic improvement opportunities and gaps?
 - What are the major common / mission services associated with the strategic improvement opportunities?
 - Who are the segment stakeholders and what are their needs?
 - What is the scope of the segment architecture?
 - What are the current segment investments, systems, and resources?
 - What are the deficiencies or inhibitors to success within the segment?
 - What is the target state vision for the segment?
 - What is the performance architecture for achieving the target state vision?
- 3. Define Business and Information Requirements: The architect leverages the guidance in this process step to engage with key stakeholders to analyze the segment business and information environments and determine the business and information improvement opportunities that will achieve the target performance architecture. Within this step, the architect begins with by developing a broad, holistic view of the overall business and information requirements associated with the strategic improvement opportunities identified in the previous step. Information requirements include the information exchanges that relate to the critical business processes associated with the performance improvement opportunities. The business and data

architectures are derived from these requirements. The business and data architectures developed at the end of this step may include the specification of business and information services respectively, and should be sufficiently complete and actionable to result in more efficient processes and allocation of resources. Key questions addressed within this step include:

- How well does the current (as-is) business and information environment meet the needs of the segment stakeholders?
- o How should the target business and information environment be designed?
- Have the segment's goals and performance objectives been translated into actionable and realistic target business and data architectures expressed within business functions, business processes, and information requirements?
- Have the business and information requirements been analyzed and documented to the lowest level of detail necessary to form actionable recommendations?
- Did the business and information analysis provide a synchronized and cohesive set of recommendations?
- Does the core team understand the adjustments that are required for the current business and information environments to fulfill the target performance architecture?
- 4. Define the Conceptual Solution Architecture: The architect leverages the guidance in this process step to engage with key stakeholders to produce the conceptual solution architecture. The conceptual solution architecture is an integrated view of the combined systems, services, and technology architectures that support the target performance, business, and data architectures developed in the preceding process steps. This process step also includes guidance for developing recommendations for transitioning from the current (as-is) state to the target state. The conceptual solution architecture produced at the end of this step is of benefit to segment and solution architects as well as to downstream capital planning and budget personnel. Key questions addressed within this step include:
 - What existing systems and services are deployed within the as-is conceptual solution architecture?
 - How well do the existing systems and services currently support the mission? Which systems and services should be considered for retirement and / or consolidation?
 - How should the target conceptual architecture be designed to fulfill the target performance architecture?
 - Are the selected target systems, components, and services reusable?
 - Does the conceptual solution architecture support the target performance, business, and data architectures developed in prior steps?
 - Have the dependencies, constraints, risks, and issues associated with the transition been analyzed to identify alternatives to be considered?
 - Are there existing external services (e.g. FTF services) that can be leveraged in the target architecture?
- 5. *Author the Modernization Blueprint:* The architect leverages outputs from previous process steps to engage with key stakeholders to create a segment architecture blueprint including

sequencing and transition plans. The outcome of this process step is a series of validated implementation recommendations supported by holistic analysis of segment business, data, technology, systems, and service components. The modernization blueprint includes findings and recommendations as well as supporting artifacts and diagrams that illustrate the analysis performed throughout the architecture development process. For instance, artifacts such as the SWOT analysis and the conceptual solution architecture are key visuals in the modernization blueprint. Note that recommendations in the modernization blueprint typically span a strategic time horizon on the order of 3-5 years. Key questions addressed within this step include:

- Have the strategic improvement opportunities from process step 2 been supported in the analysis, recommendations, and transition planning?
- Have the findings from the previous process steps been identified, categorized, and prioritized?
- Have the transition options been analyzed for costs, benefits, and risks in order to develop recommendations for implementation?
- Are the recommendations clearly described in the blueprint?
- Has the blueprint and sequencing plan been reviewed and approved by the executive sponsor, business owner(s), and core team?

The FSAM has been designed to assist architects as they develop and use actionable segment architectures. The outputs from the FSAM have also been designed specifically for use within other downstream processes, including investment management, enterprise transition planning, solution architecture development, and system lifecycle management.

Segment Sizing and Timing

The annual timing of segment architecture development is critical as the federal government has annual deadlines for capital planning and budget processes that impact the use and implementation of the architecture. Understanding a segment's size and complexity prior to beginning a segment architecture development effort can help the team determine the overall duration and level of effort expected. Such estimates also enable an agency's EA program to estimate the resources that may be required to support the development of a specific segment architecture. Table 1 provides an example of how an agency could determine the size and complexity of a specific segment.

Segment Evaluation Factors			
	Small	Medium	Large
Number of associated internal organizations / agencies	1	1-3	> 3
Number of associated external organizations / agencies	0-1	1-3	> 3
Number of service types within the segment	1-5	6-10	> 10
Number of major investments within the segment	1-2	2-5	> 5
Segment information technology (IT) budget as a percentage of overall agency annual IT budget	< 5%	5%-10%	>10%
Segment budget as a percentage of overall agency annual budget	< 1%	1%-2%	>2%

Table 1:	Segment	Sizing	Guide
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These segment sizing factors are not intended to be an exhaustive list but to be leveraged as a starting point for agencies in determining the anticipated level of effort when undertaking a segment architecture development. Table 2 provides potential target durations for architecting segments of different sizes and complexity (Steps 2 through 5). There is no exact science to determine segment size. Expert judgment and available historical information should be used when multiple categorizations are identified based on the recommended segment sizing factors. EA organizations should work to build their capabilities and optimize their efficiencies toward achieving these durations. Since Step 1 is associated with establishing the overall segment governance, the duration of this step is driven primarily by organizational complexity and is less dependent upon other segment-sizing parameters. Therefore, estimates of the time required to complete Step 1 are not provided as they can vary greatly, irrespective of segment size.

FSAM Step	Target Duration								
	Small	Medium	Large						
Step 1	Step 1 duration depends on organizational complexity								
Step 2	2-4 wks	4-6 wks	6-8 wks						
Step 3	2-6 wks	4-8 wks	6-10 wks						
Step 4	2-6 wks	4-8 wks	6-10 wks						
Step 5	2-4 wks	4-6 wks	6-8 wks						
Total (Step 2 thru 5)	8-20 wks	16-28 wks	24-36 wks						

Table 2: Target Duration for Completing FSAM Steps

Note: This table provides rough order of magnitude duration estimates for completing a segment architecture. The actual duration will depend on the availability of resources, the level of general EA and facilitation skills, and overall knowledge of FSAM. More accurate targets can be derived based on historical information and past performance from the organization's actual segment architecture development efforts.

Structure of the FSAM Guidance

The FSAM is structured with three levels of decomposition: process steps, activities, and tasks. The process steps, activities, and tasks are presented in an online toolkit containing guidance documents as well as analytical templates designed to expedite the development of segment architectures. Figure 2 shows an example of the three levels of decomposition, including the high-level process steps, activities a process step, and tasks within an activity.



Figure 2: FSAM Process Steps, Activities, and Tasks

The FSAM guidance consists of five process step guidance documents that include detailed descriptions of the associated activities and tasks. The guidance documents follow a uniform structure that includes the elements described in Table 3.

FSAM Guidance Document Element	Description						
Step Description and Purpose	This section explains the overall purpose of the process step and provides an overview of the process step.						
Step Outcome	The step outcome summarizes the overall expected result when the step is completed.						
Step At-A-Glance	The step-at-a-glance is a summary table of the process step and associated activities, including the participants and stakeholders involved in each activity and the inputs and outputs for each activity. The table also highlights any touch points with other key documents, including National Institute of Standards and Technology (NIST) 800-39, the Federal Transition Framework (FTF), and Practical Guide to Federal Service Oriented Architecture (PGFSOA), as well as any associated Federal Enterprise Architecture (FEA) Profiles. The at-a-glance table also has links to key considerations for architects that are developing enterprise and business service segment architectures and an indication of the overall level of complexity of each activity.						
Activity Details	Activity details provide a detailed description of each activity in the process step.						
Activity Short Description	Each activity is explained in a short summary description.						
Activity Flow Chart with Tasks	Each activity also has a task-level diagram that illustrates the relationship of the tasks within the activity.						
Activity Inputs	Inputs are defined for each activity and represent information that should be available or collected before starting the activity. In many cases, inputs to a given activity correspond to the outputs of a preceding activity.						
Tasks	A description of each task within the activity is provided.						
Communication Considerations	Communication considerations include additional guidance related to key messaging associated with managing stakeholder expectations, gaining buy-in to recommendations, and other items for the architect to consider.						

Table 3: Structure of the FSAM Guidance Document

FSAM Guidance Document Element	Description						
Enterprise Services Considerations	This section contains additional guidance to be applied when architecting an enterprise services segment.						
Business Services Considerations	This section contains additional guidance to be applied when architecting a business services segment.						
Activity Outputs	Outputs are defined for each activity and represent the resulting architectural information produced by the corresponding activity.						
Suggested Analytical Techniques (with examples and templates)	For each output, suggested analytical techniques and corresponding examples and templates are provided based on best practices of contributing agencies.						

FSAM Suggested Analytical Techniques

The FSAM includes a comprehensive toolbox of suggested analytical techniques as summarized in Appendix I. Analytical techniques are provided for the outputs of each activity, as defined in FSAM, and are based on agency best practices that were assessed for inclusion by the FSAWG.

Appendix I identifies those outputs that are considered "core FSAM outputs." The "core" designation suggests that the outputs deliver a complete segment architecture, as defined in the OMB EAAF v3.0 reporting requirements. All mappings defined in Appendix I are based on the data attributes as defined for each output in the corresponding suggested analytical techniques.

Appendix I also identifies which FSAM outputs, when used with the suggested analytical techniques, either support (S) or are core (C) to satisfying key usage requirements corresponding to strategic planning, capital planning, information technology (IT) governance, EAAF reporting, solution development, and security / privacy. These additional designations are meant to assist architects with identifying opportunities for FSAM outputs to be used within other planning and decision making processes.

Conclusion

The OMB FEA Practice Guidance includes core philosophies that should be embraced by the architecture community. According to the OMB FEA Practice Guidance:

"Business-led architecture is more successful in meeting strategic goals, responding to changing mission needs, and serving citizens' expectations than technology or budget driven architecture. This principle encourages agency architects to proactively collaborate with business stakeholders to develop architecture work products for a segment. Architects must understand the current state of the business and where the business stakeholders would like to make improvements. With this shared understanding, architects and business stakeholders can work together to develop the architecture work products supporting better investment and implementation decision-making."

Within the federal EA community, the core premise that architecture is about achieving results is widely accepted. However, many architects still struggle to answer the question of "how":

- How do I get my business community involved?
- How do I know what to study?
- How do I turn artifacts into decisions?

- How do I use my resources to affect change?
- How do I integrate EA with CPIC and solution architecture?
- How do I drive change as a Chief Architect?

The FSAM has been designed to provide federal architecture practitioners with an approach to answering these "how" questions in order to achieve results. Using the FSAM step-by-step, repeatable process, the EA community can resolve the "how" questions, and proactively engage segment leaders in transformation planning to produce actionable plans that lead to measurable results.

References

"Value to the Mission," <u>Federal Enterprise Architecture (FEA) Practice Guidance</u>, Federal Enterprise Architecture Program, Management Office, Office of Management and Budget, December 2006

Improving Agency Performance Using Technology, Enterprise Architecture Assessment Framework v3.0, Federal Enterprise Architecture Program, Management Office, Office of Management and Budget, July 2008 [Draft]

Appendix I: Summary of FSAM Outputs

Process Step	Output	FSAM Core		Su	Suggested Analytical Technique					
		Output (Y/N)?	Strategic Planning	Capital Planning / Budget	Mission / IT Governance	EAAF Reporting	Solution Development	Security/ Privacy	Value Provided	
Step 1	Governance framework	No			S				Identifies key roles and responsibilities for segment architecture development and shows relationships to existing governance bodies.	Governance framework
Step 1	Segment architecture development purpose statement	Yes	S	S	С	С			Articulates the issues that the segment architecture will address. Guides the core team in the development of the segment architecture.	Segment architecture development purpose statement
Step 1	Core team roster	No			S				Identifies core team and provides organizational and contact information.	Core team roster
Step 1	Core team formation memorandum	No			S				Communicates the existence of the core team, its members, and its purpose.	Core team formation memorandum
Step 1	Core team charter	No			S				Establishes the authority of the project, roles and responsibilities, operational ground rules, decision-making structure, preliminary scope, and stated objectives and goals.	Core team charter
Step 1	Project plan	No			С				Guides the segment architecture development process and ensures timely delivery.	Project plan
Step 1	Communications strategy	No			С				Identifies core stakeholders and ensures that messaging requirements for all stakeholders have been identified and planning for key communications has been accomplished.	Communications strategy
Step 2	Stakeholders and their relationships	Yes	S		S	S			Identifies the appropriate stakeholders and the relationships between them and the servicing organization. Ensures the inclusion of all relevant perspectives on how to overcome the business challenges identified in the segment purpose statement.	Stakeholder map

Summary of FSAM Outputs and Suggested Analytical Techniques

Process Step	Output	FSAM Core		Su	pport fo	or Exist	ing Mar		Requirements and Management Processes ore, S=Supports)	Suggested Analytical Technique
		Output (Y/N)?	Strategic Planning	Capital Planning / Budget	Mission / IT Governance	EAAF Reporting	Solution Development	Security/ Privacy	Value Provided	
Step 2	Business drivers and mandates	Yes	S		С				Provides the foundation from which the segment's performance line-of-sight will be built, demonstrating the linkage to the strategic, business, and investment improvement opportunities identified in subsequent steps.	Driver and policy map
Step 2	Segment scope	Yes			С	S			Helps build consensus within the core team on the range of strategic improvement opportunities and helps focus core team working sessions.	Segment summary
Step 2	Segment context	No			S	S			Provides a visual context diagram corresponding to the segment scope.	Current operating environment diagram
Step 2	Stakeholder needs	No			S				Provides the basis for formulating the consolidated business needs of the segment.	Stakeholder needs
Step 2	Risks and impacts	No		S	S		S	S	Identifies potential high-level risks and impacts associated with the segment scope and context, including risks not addressed optimally by the current environment.	Risk capture template
Step 2	Performance gaps	Yes	S	S	С	S	S	S	Identifies current state performance gaps in order to facilitate prioritization of performance improvement opportunities.	Performance gap analysis
Step 2	Strategic	Yes	S	S	С	S	S	S	Identifies internal and external factors which affect the	SWOT analysis
	improvement opportunities								achievement of the segment purpose statement. Prioritizes performance improvement opportunities and aligns them with the business needs of the organization as a whole.	Strategic improvement opportunities
Step 2	Segment performance goals and objectives	Yes	S	S	С	S	S	S	Establishes the key performance indicators, measures, and metrics that will be used to measure the achievement of segment goals and vision.	Strategic alignment of opportunities
Step 2	Common / mission services target maturity levels	No	S		S				Establishes the target maturity levels required to achieve the segment vision according to segment strategic performance goals and objectives.	Common / mission services maturity framework
Step 2	Segment architecture vision summary	No	S		S				Summarizes the purpose, scope, mission and target vision for the segment, in text and visual forms.	Segment summary
Step 2	Performance scorecard	Yes	S	С	S	С	S	S	Includes strategic, business, program and segment performance data. Conforms to EAAF 3.0 reporting requirements	Performance scorecard

Process Step	Output	FSAM Core		Su	pport fo	or Existi	ing Mar	-	Requirements and Management Processes pre, S=Supports)	Suggested Analytical Technique
		Output (Y/N)?	Strategic Planning	Capital Planning / Budget	Mission / IT Governance	EAAF Reporting	Solution Development	Security/ Privacy	Value Provided	
Step 3	As-is business value chain	No			S	S	S	S	Identifies the high-level logical ordering of the chain of processes that deliver value.	As-is business value chain analysis
Step 3	As-is business function model	Yes				S	S	S	Identifies the business functions that will be affected by potential process improvements. Ensures that processes are analyzed in context with the correct business functions and that appropriate mappings to the FEA BRM are established.	As-is business function model
Step 3	As-is key business process model	No				S	S	S	Defines processes that may require process optimization. Assists in determining high-level information and information security requirements.	As-is business activity model
Step 3	As-is business process swim lane diagram	No				S	S	S	Defines processes that may require process optimization. Assists in determining high-level information and information security requirements.	As-is business process swim lane diagram
Step 3	As-is key information sources and qualitative assessment	No				S	S	S	Documents the sources of information in the current state and determines the most trusted sources of data by information class and data entity.	Authoritative Data Source (ADS) candidate qualitative analysis matrix
Step 3	Business and data architecture adjustment profiles	No	S	S		S	S	S	Groups related opportunities and formally documents the limitations of the current state, desired characteristics of the target state, how the target state will help achieve strategic improvement opportunities, and risk and cost considerations.	Business and data architecture adjustment profiles
Step 3	Target business value chain diagram	No	S	S		S	S	S	Identifies differences in the processes that are currently being provided between the current and target states. Helps determine where new processes are required and where existing processes may no longer be necessary.	Target business value chain analysis
Step 3	Target business function model	Yes				С	С	С	Identifies the business functions that will be affected by potential process improvements. Ensures that processes are analyzed in context with the correct business functions and that appropriate mappings to the FEA BRM are established.	Target business function model
Step 3	Target key business process model	No				S	S	S	Defines optimized processes as required to achieve segment performance objectives. Assists in determining high-level information and information security requirements.	Target business activity model

Process Step	Output	FSAM Core		Su	pport fo	or Existi	ing Mar	-	Requirements and Management Processes ore, S=Supports)	Suggested Analytical Technique
		Output (Y/N)?	Strategic Planning	Capital Planning / Budget	Mission / IT Governance	EAAF Reporting	Solution Development	Security/ Privacy	Value Provided	
Step 3	Target business process swim lane diagram	No				S	S	S	Defines optimized processes as required to achieve segment performance objectives. Assists in determining high-level information and information security requirements.	Target business process swim lane diagram
Step 3	Target conceptual data model	Yes				С	с	С	Provides the structure and terminology for information and data in the target environment. Includes subject areas, information classes, key entity types, and relationships.	Target conceptual data model
Step 3	Target data steward assignments	Yes				С	С	С	Identifies the organization responsible for the creation, maintenance and quality of each information class appropriate to support business activities in the target environment.	Target data steward matrix
Step 3	Target business data mapped to key business processes (CRUD)	No				S	S	S	Help identify candidate information services, including new authoritative data sources, and producers and consumers of information.	CRUD matrix results table
Step 3	Target information sharing matrix	Yes				S	S	S	Assists in discovery of opportunities for re-use of information in the form of information-sharing services, within and between segments.	Target information sharing matrix
Step 3	Target Information Flow Diagram	Yes				S	S	S	Assists in discovery of opportunities for re-use of information in the form of information-sharing services, within and between segments.	Target information flow diagram
Step 4	As-is system and services scoring	No					S	S	Determines where adjustments to the segment systems and services architecture should be investigated.	As-is systems and services description and scoring
Step 4	As-Is conceptual solution architecture	Yes					с	С	Shows the existing systems and services in the as-is state and identifies the relationships between them. May also include an overlay to show the boundaries of key business functions and external organizational interfaces.	As-is system interface diagram
Step 4	Target conceptual solution architecture	Yes		С			С	С	Shows the proposed systems and services in the target state and identifies the relationships between them. May also include an overlay to show the boundaries of key business functions and external organizational interfaces.	Target system interface diagram

Process Step	Output	FSAM Core		Su	Suggested Analytical Technique					
		Output (Y/N)?	Strategic Planning	Capital Planning / Budget	Mission / IT Governance	EAAF Reporting	Solution Development	Security/ Privacy	Value Provided	
Step 4	Target Service Component Architecture	Yes		С			С	С	Describes service components and the mechanisms for providing service delivery to customers. Provides a framework and vocabulary for guiding discussions between service providers and consumers.	Service component model (SCM)
Step 4	Target Technical Architecture	Yes		С			С	С	Shows the technology components that support service delivery for each SCM service component.	Technology model
Step 4	Integrated service component and technology model	No					S	S	Shows the service-to service interaction, supporting technical components, and information flows associated with each service component. Used to derive the TRM.	Integrated service component and technology model
Step 4	Transition recommendation profile	No			S		S	S	Describes a recommended transition alternative. May include intermediate target states and alternative recommendations based on multiple funding levels.	Transition recommendation profile
Step 4	Transition recommendation sequencing diagram	No			S		S	S	The single, consolidated diagram that shows the transition recommendation sequencing milestones for an implementation alternative.	Transition recommendation sequencing diagram
Step 4	Reuse Summary	Yes		С		С			Describes segment reuse of business, system, and service components from other segments and by other segments. Conforms to EAAF 3.0 reporting requirements.	Reuse summary
Step 4	Data Reuse	Yes		С		С			Describes segment reuse of information exchange packages and data entities from other segments and by other segments. Conforms to EAAF 3.0 reporting requirements.	Data Reuse
Step 4	Recommendation Sequencing Milestones	Yes		С	S	С			Preliminary version of the Step 5 Target Recommendation Sequencing Milestones. Conforms to EAAF 3.0 reporting requirements.	Recommendation sequencing milestones
Step 5	Analysis of cost, value and risk for transition options	No			S		S	S	Informs the prioritization (selection and sequencing) of transition options to formulate a set of implementation recommendations.	Value measuring methodology cost to value matrix
Step 5	Proposed implementation recommendations	No				S	S	S	Comprises the set of implementation recommendations that are used to develop the recommended high-level implementation plan.	Draft recommendation implementation overview visual

Process Step	Output	FSAM Core		Su	Requirements and Management Processes ore, S=Supports)	Suggested Analytical Technique				
		Output (Y/N)?	Strategic Planning	Capital Planning / Budget	Mission / IT Governance	EAAF Reporting	Solution Development	Security/ Privacy	Value Provided	
Step 5	Strategic systems migration / sequencing overview	Yes			С	S	С	С	The single, consolidated diagram that shows the transition recommendation sequencing recommendations for the selected implementation recommendations.	Recommendation sequencing diagram
Step 5	Recommendation implementation sequencing plan	No			С	S	S	S	Sequencing plan that includes all tasks associated with the overall transition of business processes, systems and services to achieve the target state. Identifies internal and external dependencies as milestones or predecessor tasks.	Implementation sequencing plan
Step 5	Segment architecture blueprint document (incl. sequencing plan)	Yes	S		с	S	С	С	Description of the overall segment transition plan that is focused on implementation of the business transformation recommendations. Contains descriptions of some of the key analysis performed in prior process steps.	Modernization blueprint
Step 5	Segment Mappings	Yes		С		С			Provides the FEA CRM mappings for the segment and shows the relationship between the segment and its investment portfolio, PART programs supported, and government-wide FTF and e-Gov initiatives.	Segment mappings
Step 5	Transition Plan Milestones	Yes	S	С	С	С	С	С	Provides the implementation and performance improvement milestones for the segment transition plan.	Transition plan milestones
Step 5	Document review log	No			S				A log used to collect review comments and change requests for the segment architecture blueprint.	Document review form
Step 5	Feedback tracking document and feedback action report	No			S				A log used to record feedback and document and track follow-up actions.	Feedback tracking and action report