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INFORMATION TECHNOLOGY

Enterprise Architecture Use across the Federal Government Can Be Improved



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Abstract The state of the federal governments use of enterprise architectures is a work in progress, with much left to be accomplished. Although about 52 percent of federal departments and agencies report that they have satisfied at least those management practices that provide the foundation for developing, completing, and leveraging architectures, only about 4 percent report that they have satisfied the management practices that, in our view, are necessary to be an effective enterprise architecture manager.		
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INFORMATION TECHNOLOGY

Enterprise Architecture Use across the Federal Government Can Be Improved

Highlights of [GAO-02-6](#), a report to Congressional Committees

Why GAO Did This Study

GAO's experience with federal agencies has shown that attempts to modernize information technology environments without blueprints—models simplifying the complexities of how agencies operate today, how they want to operate in the future, and how they will get there—often result in unconstrained investment and systems that are duplicative and ineffective. Enterprise architectures offer such blueprints. Given the issue's importance, GAO developed a maturity framework for enterprise architecture management and reviewed architecture use in the federal government, specifically determining agencies' development, implementation, and maintenance of these architectures, and OMB's oversight.

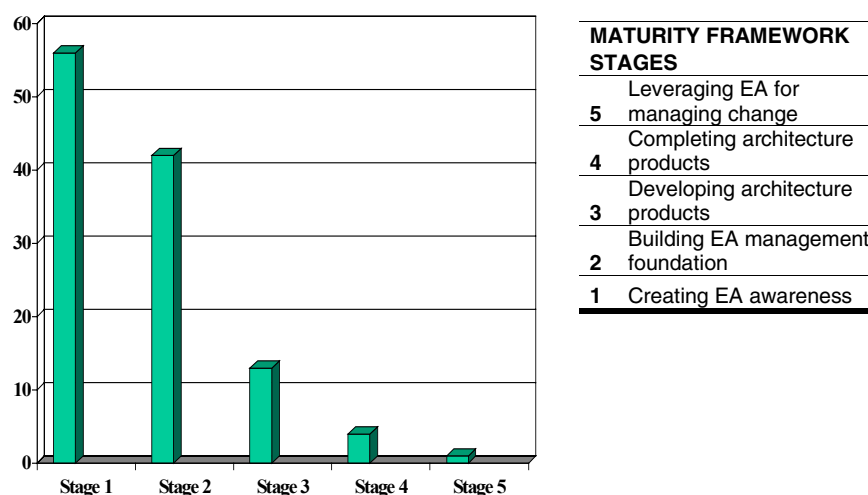
What GAO Recommends

GAO recommends that OMB work with agencies to use the maturity model and agency baseline information in this report in helping agencies advance the state of their architecture development and measure progress. Relatedly, GAO recommends that OMB address the impediments to greater use of architectures. OMB officials stated that they would consider our recommendations.

What GAO Found

Agencies' use of enterprise architectures is a work in progress, with much left to be accomplished. Of the 116 agencies GAO surveyed, 98 reported meeting the minimum criteria necessary, according to the GAO maturity framework, for stages 1 or 2—creating enterprise architecture awareness or building an enterprise architecture management foundation (see below). In contrast, only 5 agencies reported satisfying the practices that GAO believes are needed to effectively manage enterprise architecture activities (stages 4 or 5).

Number of Agencies at Each Stage of Enterprise Architecture Maturity, and Stage Definitions



What accounts for this? Historically, agency executives have not fully understood the value of enterprise architectures; hence, these tools have lacked the executive sponsorship necessary to become a funding priority. In addition, human capital expertise in this area has been scarce. As a result, the risk is heightened that agencies will proceed with systems modernization—investment decisions without the benefit of this architectural context and will end up with systems that limit mission performance, often after significant unwise use of taxpayer funds.

OMB has recognized the importance of enterprise architectures and has moved, through its role in the budget process, to increase their use. We support these efforts and view them as positive first steps. However, OMB is focusing primarily on major agencies, relying largely on agency submissions, and is not using an independent benchmark that defines the incremental steps an agency can take to mature. Unless it enhances its oversight approach to address these areas, OMB will be challenged in advancing the state of governmentwide architecture maturity.

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Abbreviations

CIO	Chief Information Officer
DOD	Department of Defense
EA	Enterprise Architectures
OMB	Office of Management and Budget



United States General Accounting Office
Washington, D.C. 20548

February 19, 2002

The Honorable Joseph I. Lieberman
Chairman
The Honorable Fred Thompson
Ranking Minority Member
Committee on Government Affairs
United States Senate

The Honorable Dan Burton
Chairman
The Honorable Henry A. Waxman
Ranking Minority Member
Committee on Government Reform
House of Representatives

The Honorable Thomas M. Davis
Chairman
The Honorable Jim Turner
Ranking Minority Member
Subcommittee on Technology and Procurement Policy
Committee on Government Reform
House of Representatives

Effectively and efficiently designing and erecting a modern building requires construction blueprints that define, among other things, the building's features, functions, and systems, including applicable building codes, rules, and standards, as well as the interrelationships among these components. Effectively and efficiently transforming an entity's operational and technology environments also requires a blueprint—commonly referred to as an enterprise architecture. Such an architecture includes descriptive models (defined in both business and technology terms) to aid decisionmakers in understanding the complexities around how the entity operates today and how it wants to operate in the future. It also includes a roadmap for transitioning to this future operational state.

Our experience with federal agencies has shown that attempting to modernize information technology (IT) environments without an enterprise architecture to guide and constrain investments often results in systems that are duplicative, not well integrated, unnecessarily costly to maintain and interface, and ineffective in supporting mission goals. Managed properly, architectures can clarify and help optimize the

interdependencies and interrelationships among related enterprise operations and the underlying IT infrastructure and applications that support them. The development, implementation, and maintenance of architectures are a recognized hallmark of successful public and private organizations. Further, Office of Management and Budget (OMB) Circular A-130,¹ which implements the Clinger-Cohen Act of 1996,² requires executive branch agencies to use them.

Because of the importance of these architectures, we reviewed the state of their use in the federal government. Our objectives were to determine (1) the status of federal agencies' efforts to develop, implement, and maintain enterprise architectures and (2) OMB's actions to oversee these efforts. To accomplish these goals, we surveyed 116 federal agencies using a questionnaire that was based on the core elements of effective enterprise architecture management as defined in the Chief Information Officers (CIO) Council–published *Practical Guide to Federal Enterprise Architecture*.³ We did not independently verify the data that the agencies provided. Details of our objectives, scope, and methodology are discussed in appendix I.

Results in Brief

The state of the federal government's use of enterprise architectures is a work in progress, with much left to be accomplished. Although about 52 percent of federal departments and agencies report that they have satisfied at least those management practices that provide the foundation for developing, completing, and leveraging architectures, only about 4 percent report that they have satisfied the management practices that, in our view, are necessary to be an effective enterprise architecture manager.

The state of enterprise architecture use in the federal government can be attributed to several related factors. Specifically, agency executives have historically not understood the purpose, content, and value of these architectures, a misunderstanding that in turn has not allowed these management tools to receive the executive sponsorship they need to be

¹*Management of Federal Information Resources*, Office of Management and Budget, Circular No. A-130 (November 30, 2000).

²Clinger-Cohen Act of 1996, Public Law 104-106, section 5125, 110 Stat. 684 (1996).

³*A Practical Guide to Federal Enterprise Architecture*, Version 1.0, Chief Information Officers Council (February 2001).

treated as a funding priority and to overcome the embedded cultural resistance to the non-parochial, entitywide approach that enterprise architectures promote. Further, skilled human capital in the discipline of enterprise architecture is a scarce resource. Accordingly, most federal agencies currently do not have the architectural context and enforcement mechanisms needed for making informed IT investment decisions, thus increasing the risk that these agencies will build and modernize systems that are duplicative, poorly integrated, unnecessarily costly to maintain and interface, and ineffective in optimizing agency mission performance.

OMB has been an advocate of enterprise architecture development and use. Building on this advocacy, the agency has, among other things, begun to address this important area in its budget interactions with major departments and agencies. We support OMB's attention to this vitally important area. Nevertheless, we believe that OMB's existing oversight approach can be improved by using a more structured means of measuring agency progress in advancing the state of enterprise architecture maturity, expanding the number of agencies subject to its oversight approach, and focusing on governmentwide actions needed to assist agencies in meeting common enterprise architecture challenges. We are providing the OMB director with the baseline data, improvement framework, and recommendations for making these improvements.

In commenting on a draft of this report, officials from OMB's Office of Information and Regulatory Affairs generally agreed with our findings and conclusions and stated that they would consider our recommendations. They also provided additional information about recent and planned OMB enterprise architecture initiatives, which we have incorporated in the report.

Background

Enterprise architectures (EA) provide a clear and comprehensive picture of an entity, whether an organization (e.g., federal department, agency, or bureau) or a functional or mission area that cuts across more than one organization (e.g., financial management). The concept of such architectures first emerged in the mid-1980s, and over the years various frameworks for defining the content of EAs have been published. Our work in the early 1990s identified architectures as a critical success factor for organizations that effectively leveraged IT in meeting their mission goals, and it advocated federal agency use of architectures. Since then, we have worked with the Congress, OMB, and the federal CIO Council to recognize the importance of architectures and assist agencies in developing

and using them. Nevertheless, our reviews of agency IT management practices and major systems modernization programs continue to identify the lack of architectures as a major IT management weakness, and they have produced numerous recommendations to address this important area. In some cases, most notably the U.S. Customs Service, our work has shown that EA management has improved significantly.

Enterprise Architectures: A Brief Description

Enterprise architectures are essential tools for effectively and efficiently engineering business processes and for implementing and evolving their supporting systems. In the simplest of terms, an enterprise is any purposeful activity and an architecture is the structure (or structural description) of an activity. More specifically, EAs are systematically derived and captured descriptions—in useful models, diagrams, and narrative—of the mode of operation for a given enterprise, which can be (1) a single organization or (2) a functional or mission area that transcends more than one organizational boundary (e.g., financial management, acquisition management, logistics management). The architecture describes the enterprise’s operations in both (1) logical terms, such as interrelated business processes and business rules, information needs and flows, and work locations and users, and (2) technical terms, such as hardware, software, data, communications, and security attributes and performance standards. It provides these perspectives both for the enterprise’s current or “as is” environment and for its target or “to be” environment, as well as a transition plan for moving from the “as is” to the “to be” environment.

EA development, implementation, and maintenance is a basic tenet of effective IT management. Managed properly, these architectures can clarify and help optimize the interdependencies and interrelationships among an organization’s business operations and the underlying IT infrastructure and applications that support these operations. Employed in concert with other important IT management controls, such as portfolio-based capital planning and investment control practices, EAs can greatly increase the chances that organizations’ operational and IT environments will be configured in such a way as to optimize mission performance. Our experience with federal agencies has shown that attempting to define and build major IT systems without using a complete architecture often results in systems that are duplicative, are not well integrated, and are unnecessarily costly to maintain and interface.

Enterprise Architectures: A Brief History of Frameworks and Management Guidance

The concept of EAs dates back to the mid-1980s. At that time, John Zachman, widely recognized as a leader in the field, identified the need to use a logical construction blueprint (i.e., an architecture) for defining and controlling the integration of systems and their components.⁴ Accordingly, Zachman developed a “framework” or structure for logically defining and capturing an architecture. Drawing parallels to the field of classical architecture, and, later, to the aircraft manufacturing industry, in which different work products (e.g., architect plans, contractor plans, shop plans, bills of lading) represent different views of the planned building or aircraft, respectively, Zachman’s framework identified the kind of work products needed to understand and thus build a given system or entity. In short, this framework provides six perspectives or windows from which to view how a given entity operates. The perspectives are those of the (1) strategic planner, (2) system user, (3) system designer, (4) system developer, (5) subcontractor, and (6) system itself. Associated with each of these perspectives, Zachman also proposed six abstractions of the entity, or models covering (1) how the entity operates, (2) what the entity uses to operate, (3) where the entity operates, (4) who operates the entity, (5) when entity operations occur, and (6) why the entity operates. Zachman’s framework provides a way to identify and describe an entity’s existing and planned component parts and the parts’ relationships before the costly and time-consuming efforts associated with developing or transforming the entity begin.

Since the late 1980s, architecture frameworks have emerged within the federal government, beginning with the publication of the National Institute of Standards and Technology framework in 1989.⁵ Subsequently, we issued EA guidance,⁶ and our research of successful public and private-sector organizations’ IT management practices identified the use of EAs as a factor critical to these organizations’ success.⁷ Since that time, other

⁴J. A. Zachman, “A Framework for Information Systems Architecture,” *IBM Systems Journal*, vol. 26(3), 1987.

⁵National Institute of Standards and Technology, *Information Management Directions: The Integration Challenge*, Special Publication 500-167 (September 1989).

⁶*Strategic Information Planning: Framework for Designing and Developing System Architectures* (GAO/IMTEC-92-51, June 1992).

⁷*Executive Guide: Improving Mission Performance through Strategic Information Management and Technology* (GAO/AIMD-94-115, May 1994).

federal entities have issued EA frameworks, including the Department of Defense,⁸ Department of the Treasury,⁹ and the federal CIO Council.¹⁰ Although the various frameworks use different terminology and somewhat different structures, they are fundamentally consistent in purpose and content, and they are being used today to varying degrees by many federal agencies.

The emergence of federal frameworks and guidance over the last 5 years owes largely to the Congress's passage of the Clinger-Cohen Act in 1996.¹¹ This act, among other things, requires the CIOs for major departments and agencies to develop, maintain, and facilitate the implementation of information technology architectures as a means of integrating business processes and agency goals with IT. In response to the act, OMB, in collaboration with us, issued guidance on the development and implementation of EAs.¹² More recently, OMB issued additional guidance directing that agency investments in IT be based on agency architectures.¹³ Similarly, the CIO Council, in addition to publishing a federal enterprise architecture framework, recently collaborated with us in issuing two additional EA guidance documents. The first addresses EA enforcement and describes how an organization should go about assessing whether its proposed IT investments are compliant with its EA.¹⁴ The second addresses development, maintenance, and implementation, describing in practical terms an end-to-end set of steps for managing an EA program.¹⁵ More specifically, this guide explains how to get started and organized,

⁸*DOD C4ISR Architecture Framework*, Version 2.0, December 18, 1997.

⁹*Treasury Enterprise Architecture Framework*, Version 1.0, July 3, 2000.

¹⁰*Federal Enterprise Architecture Framework*, Version 1.1, September 1999.

¹¹Clinger-Cohen Act of 1996, Public Law 104-106, section 5125, 110 Stat.684 (1996).

¹²*Information Technology Architectures*, Office of Management and Budget Memorandum M-97-16 (June 18, 1997), rescinded with the update of OMB Circular A-130, November 30, 2000.

¹³*Management of Federal Information Resources*, Office of Management and Budget, Circular No. A-130 (November 30, 2000).

¹⁴Chief Information Officers Council, *Architecture Alignment and Assessment Guide*, October 2000.

¹⁵Chief Information Officers Council, *A Practical Guide to Federal Enterprise Architecture*, Version 1.0, February 2001.

what kind of management controls are needed, what factors to consider in formulating an EA development approach, how to go about defining the current and target architecture and the plan for sequencing from the current to the target, how to ensure that the architecture is implemented and enforced, and how to systematically refresh and maintain the architecture to ensure its currency and relevance.

Weaknesses, Some Progress Found in Agencies' EA Management

We began reviewing federal agencies' use of architectures in 1994, focusing initially on those agencies that were pursuing major system modernization programs that were high-risk. These included the National Weather Service system modernization,¹⁶ the Federal Aviation Administration air traffic control modernization,¹⁷ and the Internal Revenue Service tax systems modernization.¹⁸ Generally, we reported that these agencies EAs were incomplete, and we made recommendations that they develop and implement complete EAs to guide their modernization efforts.

Since then, we have reviewed architecture management at other federal agencies, including the Department of Education,¹⁹ Customs Service,²⁰ Immigration and Naturalization Service,²¹ and Centers for Medicare and Medicaid Services,²² and we have reviewed the use of EAs for certain

¹⁶*Weather Forecasting: Systems Architecture Needed for National Weather Service Modernization* (GAO/AIMD-94-28, March 11, 1994).

¹⁷*Air Traffic Control: Complete and Enforced Architecture Needed for FAA Systems Modernization* (GAO/AIMD-97-30, February 3, 1997).

¹⁸*Tax Systems Modernization: Blueprint Is a Good Start but Not Yet Sufficiently Complete to Build or Acquire Systems* (GAO/AIMD/GGD-98-54, February 24, 1998).

¹⁹*Student Financial Aid Information: Systems Architecture Needed to Improve Programs' Efficiency* (GAO/AIMD-97-122, July 29, 1997).

²⁰*Customs Service Modernization: Architecture Must Be Complete and Enforced to Effectively Build and Maintain Systems* (GAO/AIMD-98-70, May 5, 1998).

²¹*Information Technology: INS Needs to Better Manage the Development of Its Enterprise Architecture* (GAO/AIMD-00-212, August 1, 2000).

²²*Medicare: Information Systems Modernization Needs Stronger Management and Support* (GAO-01-824, September 20, 2001).

agency functional areas, such as DOD financial management,²³ logistics management,²⁴ and combat identification.²⁵ These reviews have continued to identify the absence of complete and enforced EAs, which in turn have led to agency business operations, systems, and data that are stovepiped, duplicative, and incompatible, and have forced agencies either not to share data or to depend on expensive, custom-developed interface systems to do so.

In response to our recommendations, some agencies have made progress, particularly those at which our recommendations were made many years ago. However, this progress has taken considerable time to achieve. Other agencies have yet to make much progress. The most notable exception to this is the Customs Service, which completed an EA as well as the management controls for maintaining it and enforcing IT investments' compliance with it in approximately 1 year.

A Framework to Assist Agencies in Managing Their EA Efforts

The ability to effectively manage an activity requires useful measures of activity status in relation to a standard. In the case of federal agencies' EA efforts, no such standard or method for measuring status and progress over time has existed. Accordingly, we have developed an initial version of an EA management maturity framework to serve as this standard that is based on the core elements from the CIO Council–published practical guide for EA management. Specifically, we arranged these core elements into a series of five hierarchical stages based on the implicit dependencies among these elements addressed in the guide. We also categorized these core elements into attributes associated with effectively discharging any management function—namely, elements that demonstrate organizational commitment, such as policies and approvals; elements that provide the capability to satisfy the commitment, such as assignment of organizational roles and responsibilities; elements that demonstrate satisfaction of the

²³*Information Technology: Architecture Needed to Guide Modernization of DOD's Financial Operations* (GAO-01-525, May 17, 2001).

²⁴*Information Technology: DLA Should Strengthen Business Systems Modernization Architecture and Investment Activities* (GAO-01-631, June 29, 2001).

²⁵*Combat Identification Systems: Strengthened Management Efforts Needed to Ensure Required Capabilities* (GAO-01-632, June 25, 2001).

commitment, such as EA plans and products; and elements that verify satisfaction of the commitment, such as measurements. This framework construct is consistent with other maturity frameworks, such as our Information Technology Investment Management framework.²⁶

The framework's five stages of EA management maturity are depicted in figure 1 and constitute an initial version of our EA maturity framework (version 1.0). Associated with each stage is a description of EA management core elements, categorized as discussed above. All of the elements associated with a particular stage must be met in order to achieve that stage of maturity.

Stage 1: Creating EA Awareness is characterized by either no plans to develop and use an EA, or plans and actions that do not yet demonstrate an awareness of the value of having and using one. While Stage 1 agencies may have initiated some EA core elements, these agencies' efforts are ad hoc and unstructured, and do not provide the management foundation necessary for successful EA development.

Stage 2: Building the EA Management Foundation focuses on assignment of roles and responsibilities and establishment of plans for developing EA products. Specifically, a Stage 2 agency has designated a chief architect and established and staffed a program office responsible for EA development. Further, a steering committee or group that has responsibility for directing and overseeing the development has been established and the membership of the steering committee is comprised of business and IT representatives. At Stage 2, the agency either has plans for developing or has begun development of at least some of the necessary EA products. This stage also requires the agency to have selected both a framework that will be the basis for the nature and content of the specific products it plans to develop, and an automated tool to help in the development.

Stage 3: Developing Architecture Products focuses on actual development of EA products. At Stage 3, the agency has defined the scope of its EA as encompassing the entire enterprise, whether organization-based or function-based, and it has a written and approved policy demonstrating institutional commitment. Although the products may not

²⁶Information Technology Investment Management: A Framework for Assessing and Improving Process Maturity (Exposure Draft, GAO/AIMD-10.1.23, May 2000).

yet be complete, they are intended to describe the agency in business, data, applications, and technology terms. Further, the products are to describe the current (i.e., “as is”) and future (i.e., “to be”) states and the plan for transitioning from current to future state (i.e., sequencing plan). Also, as the architecture products are being developed, they are to be subject to configuration control.

Stage 4: Completing EA Products is characterized by complete and approved EA products that the agency can use to help select and control its portfolio of IT investments. The complete products describe the agency in business, data, applications, and technology terms. Also, the products are complete in that they describe the agency’s current and future states and the transition plan for sequencing from the current state to the future state. Further, the agency’s CIO has approved the EA and the agency has a written policy requiring that IT investments comply with the EA.

Stage 5: Leveraging the EA for Managing Change entails evolving the products according to a written and approved policy for EA maintenance. Also at this stage, either the steering committee, investment review board, or agency head approves the EA. Finally, the agency has incorporated the EA into its corporate decisionmaking and has established and is using metrics to measure the effectiveness of its EA.

Figure 1: GAO's Five Stages of EA Maturity (version 1.0)

STAGE	CORE ELEMENTS			
	Demonstrates commitment	Provides capability to meet commitment	Demonstrates satisfaction of commitment	Verifies satisfaction of commitment
5 Stage 5: Leveraging the EA for Managing Change <i>(includes all elements in Stage 4)</i>	Written/approved policy exists for EA maintenance		Either EA steering committee, investment review board, or agency head has approved EA	Metrics exist for measuring EA benefits
4 Stage 4: Completing Architecture Products <i>(includes all elements in Stage 3)</i>	Written/approved policy exists for information technology investment compliance with EA		EA products • describe enterprise's business—and the data, applications, and technology that support it • describe "as is" environment, "to be" environment, and sequencing plan Agency chief information officer has approved EA	
3 Stage 3: Developing Architecture Products <i>(includes all elements in Stage 2)</i>	Written/approved policy exists for EA development	EA products are under configuration management	EA products • describe or will describe enterprise's business—and the data, applications, and technology that support it • describe or will describe "as is" environment, "to be" environment, and sequencing plan EA scope is enterprise-focused	
2 Stage 2: Building the EA Management Foundation	Committee or group representing the enterprise is responsible for directing, overseeing, or approving EA	Program office responsible for EA development exists Chief architect exists EA being developed using a framework and automated tool	EA plans • call for describing enterprise in terms of business, data, applications, or technology • call for describing "as is" environment, "to be" environment, or sequencing plan	
1 Stage 1: Creating EA Awareness	Agency is aware of EA			

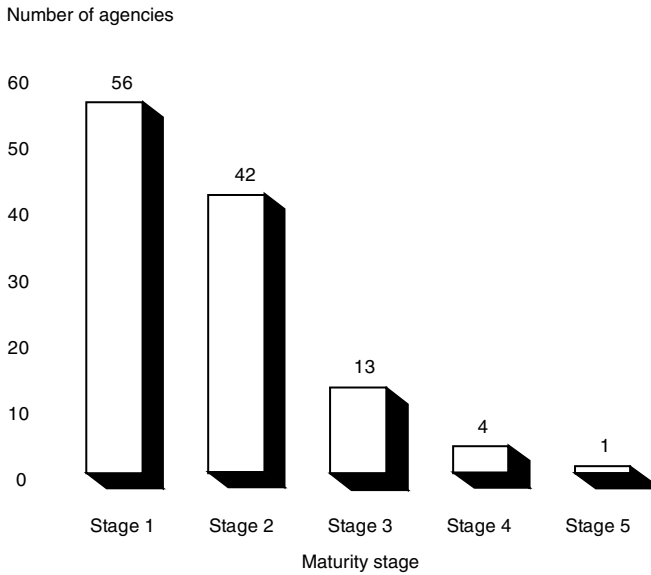
Source: GAO.

All Agencies Have Initiated Some EA Activities, but Most Lack Core Elements

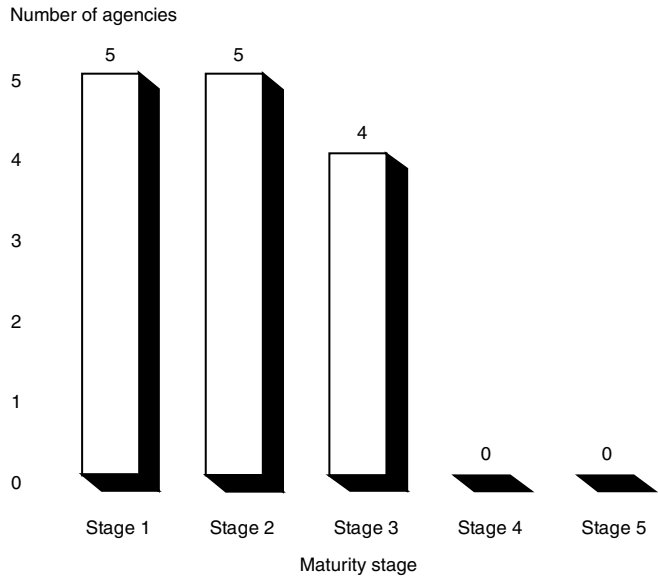
According to our survey results, the federal government as a whole has not reached a mature state of EA management. In particular, about 52 percent of federal agencies reported having at least the management foundation that is needed to begin successfully developing, implementing, and maintaining an EA, and about 48 percent of agencies have not yet advanced to this basic stage of maturity. At the other extreme, only about 4 percent of federal agencies' EA efforts have matured to the point that they can be considered effective,²⁷ with only one agency, the Customs Service, attaining the highest stage of maturity. This overall state of maturity is consistent for each of the three components that make up the 116 federal agencies that we surveyed: departments (e.g., Department of the Treasury), department component agencies (e.g., Internal Revenue Service), and independent agencies (e.g., Social Security Administration). (See figure 2.) A summary listing of the 116 agencies' EA maturity is provided in appendix II of this report. Detailed summaries of individual departments', component agencies', and independent agencies' EA maturity are provided in appendixes III, IV, and V, respectively.

²⁷The Department of the Army, the Internal Revenue Service, the Office of Personnel Management, and the Patent and Trademark Office have all attained stage 4 of our maturity framework.

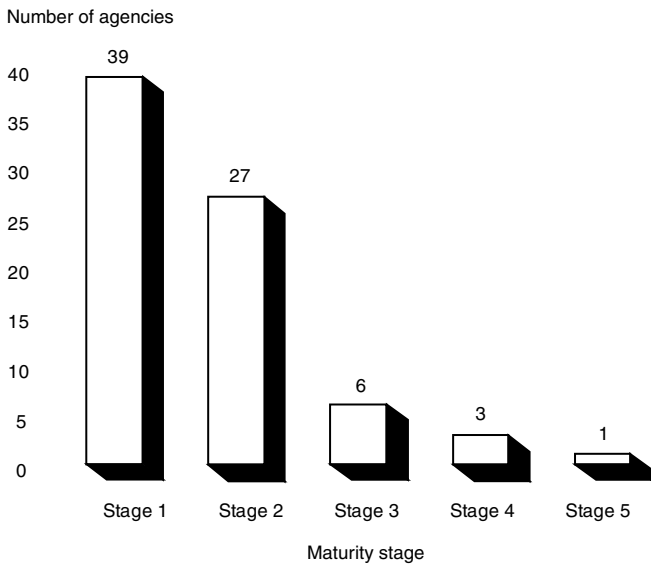
Figure 2: Summary of Federal Agencies' EA Maturity
All agencies, total = 116



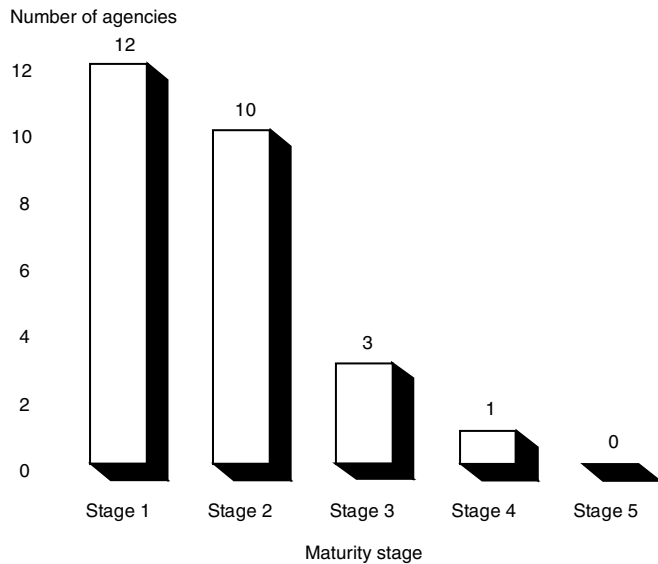
Departments, total = 14



Component agencies, total = 76



Independent agencies, total = 26



Source: GAO analysis of agency survey responses.

Despite this less-than-mature state of affairs, our survey revealed some signs of progress. For example, most agencies are performing certain core elements of our maturity framework, such as using a specific EA framework and automated tool. Moreover, about 82 percent of those agencies at a given maturity stage are also reportedly performing one or more core elements associated with a higher maturity stage. Other relevant EA management information, such as costs and benefits, was also reported by agencies that we surveyed. Each of these areas is discussed in greater detail below.

It is extremely important that federal agencies advance the state of their EA maturity. Without well-defined and used architectures, agencies will likely continue the same IT investment practices of the past, practices that have produced nonintegrated, duplicative, and suboptimized agency operations and supporting IT environments.

Most Agencies Are Performing Certain Maturity Framework Core Elements

Regardless of individual agencies' maturity levels, most agencies (75 percent or more) report performing certain core elements related to stages 2 and 3 of our framework, and thus the prospects for future improvements in the state of the federal government's EA maturity are promising. For example, at least three out of four agencies are performing four core elements related to *Building the EA Management Foundation* (stage 2). Specifically, 75 percent of agencies have established a program office responsible for EA development; 75 percent of agencies have selected an architecture framework and an automated development and maintenance tool; 81 percent of agencies plan for their architecture products to describe the enterprise in *one or more* of the following terms: business, data, applications, *or* technology; and 82 percent of agencies plan their architecture products to describe *one or more* of the following: the "as is" environment, the "to be" environment, *or* the sequencing plan.

Most agencies also report performing three core elements related to *Developing Architecture Products* (stage 3). Specifically, 76 percent of agencies have scoped their EA to cover the entire enterprise; 77 percent of agencies plan for their EA products to describe the enterprise in *all* of the following terms: business, data, applications, *and* technology; and 77 percent of agencies plan their EA products to describe *all* of the following: the "as is" environment, the "to be" environment, *and* the sequencing plan.

Most Agencies Are Performing Core Elements Associated with a Higher Maturity Stage

Although an agency may meet all the core elements associated with only one particular maturity stage, this agency could also be performing one or more core elements associated with higher maturity stages. Our analysis of survey results shows that this is frequently the case. In fact, 82 percent of agencies in stage 1 through stage 4 are performing at least one core element above their current maturity stage. In particular, of the 56 agencies at stage 1, 35 are performing core elements that meet at least one of the criteria in stage 2 through stage 5.

Moreover, some of these agencies need to satisfy only one additional core element in order to advance one or more maturity stages, meaning that the opportunity exists for some agencies to quickly advance their respective EA maturity levels. About 46 percent of the agencies (53 out of 115) need to satisfy only one additional core element to advance to at least the next maturity stage.²⁸ Moreover, 8 of these agencies could advance two stages by satisfying just one additional core element, and one agency, the Defense Contract Audit Agency, could climb three stages (from stage 2 to stage 5) by satisfying just one additional core element.

About 9 percent of the agencies (10 out of 115) need to satisfy only two core elements in order to advance two maturity stages, and 3 percent (4 out of 115) need to satisfy three additional core elements to advance three maturity stages. One agency, the Defense Legal Services Agency, could advance from stage 1 to stage 5 by satisfying only two additional core elements. As noted above, the Food and Drug Administration and the International Trade Administration, which are currently stage 1 agencies, could advance to stage 5 by satisfying a total of four additional core elements, one at each of stages 2 through 5.

Departmental Leadership Can Influence the Maturity of the Component Agencies

Of the 14 cabinet-level departments, all of which responded to our survey, 6 have established a policy governing the development of EA by their component agencies; 8 have not. Our analysis of the maturity level of component agencies, using resampling methods, provides statistical evidence that the average maturity level of component agencies in departments with an EA policy is higher than the average maturity level of component agencies in departments without an EA policy. Specifically, the

²⁸One of the 116 agencies included in our analysis has achieved stage 5 of our framework (i.e., satisfied all the core elements).

average maturity level of the component agencies within departments that have departmentwide policies is 1.9, while the average maturity level of the component agencies within departments that do not have a policy is 1.5. The Departments of Commerce and the Treasury, for example, which both have a departmentwide policy, have average EA maturity levels of 2.2 for their component agencies. In contrast, no department that lacks a policy has an average EA maturity level higher than 1.7.

Available Agency EA Cost Data Show Variability

As discussed in the CIO Council–published EA management practical guide, the scope and nature of the enterprise and the extent of enterprise transformation and modernization envisioned will dictate the depth and detail of the architecture to be developed and maintained. Thus, the EA has to be tailored to the individual enterprise and that enterprise’s intended use of the architecture. Accordingly, the level of resources that an agency invests in its EA is likely to vary.

Our survey data showed considerable variability among agencies in the cost to develop and maintain EAs. For those agencies that reported having completed an EA, the actual development costs that they reported ranged from \$70,000 to \$18.2 million. (See table 1.) In developing this range, we only included those 14 agencies that satisfied our maturity framework’s definition of a complete EA (i.e., the EA products describe the enterprise’s business and the data, applications, and technology that support it; the EA products describe the “as is” environment, “to be” environment, and the plan for sequencing from the “as is” to the “to be”; and the agency CIO has approved the EA). In doing so, we did not include EA development cost data reported by 31 other agencies because they did not satisfy our maturity framework’s definition of a complete EA. For the 14 agencies that had completed EAs, the annual costs reported for architecture maintenance ranged from \$30,000 to \$1.5 million. (See table 1.)

Table 1: Agencies' Reported Actual Costs to Complete EA and Annual Costs to Maintain EA

Agency	Actual cost to complete EA (\$000s)	Annual cost to maintain EA(\$000s)
Patent and Trademark Office	None reported	30
International Trade Administration	70	10
Defense Legal Services Agency	120	30
Federal Railroad Administration	194	0
Farm Service Agency	200	None reported
Bureau of Prisons	276	0
Census Bureau	285	170
Defense Contract Audit Agency	358	0
Office of Personnel Management	400	65
Small Business Administration	1,100	200
Veterans Health Administration	2,100	1,000
Department of Energy	3,600	800
Customs Service	6,000	1,500
Internal Revenue Service	18,200	None reported

Source: Agency survey responses.

For agencies that reported not having completed an EA, 32 reported the estimated costs associated with completing one. These estimated EA completion costs ranged from \$100,000 to \$25.3 million. (See table 2.) Generally, the variability in the reported EA costs can be attributed, at least in part, to differences in the respective agencies' size and complexity.

Table 2: Agencies' Reported Estimated Costs to Complete EA

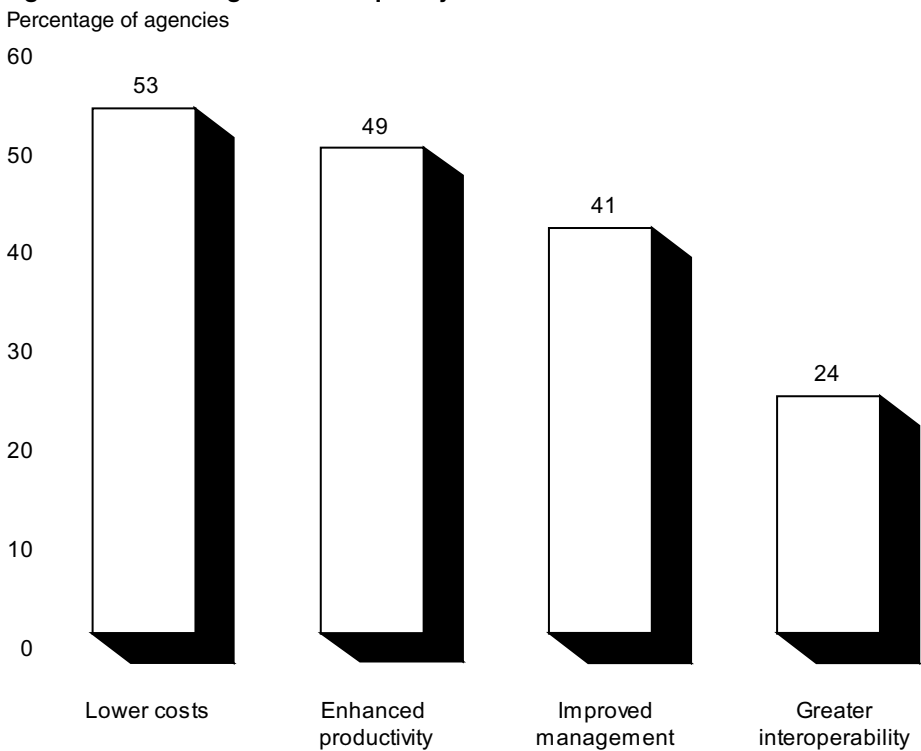
Agency	Estimated cost to complete EA (\$000s)
Economic Development Administration	100
Smithsonian Institution	225
Peace Corps	250
Ballistic Missile Defense Organization	300
Coast Guard	300
Railroad Retirement Board	400
Bureau of Alcohol, Tobacco, and Firearms	500
Administration for Children and Families	750
Federal Law Enforcement Training Center	750
General Services Administration	898
U.S. Mint	900
Bureau of Reclamation	1,000
Social Security Administration	1,100
Defense Logistics Agency	1,200
Bureau of Indian Affairs	1,500
Securities and Exchange Commission	1,500
Immigration and Naturalization Service	1,600
Department of the Interior	2,280
Federal Bureau of Investigation	2,500
National Highway Traffic Safety Administration	2,500
Drug Enforcement Administration	2,800
Department of the Treasury	3,000
Department of Transportation	3,000
Department of State	4,280
Defense Threat Reduction Agency	6,731
Department of Labor	7,000
Forest Service	12,500
Department of the Navy	15,000
Federal Motor Carrier Safety Administration	15,000
Natural Resources Conservation Service	15,000
National Imagery and Mapping Agency	20,000
Nuclear Regulatory Commission	25,300

Source: Agency survey responses.

Agencies Cite Similar EA Benefits

OMB policy, CIO Council guidance, and our reviews have identified multiple benefits of developing EAs, including avoiding duplication between IT systems, promoting integration of systems, reducing system-related costs, and optimizing mission performance. The agencies' responses to our survey echoed these and offered additional benefits associated with developing and using an EA. Specifically, the most frequently cited EA benefit was lower system-related costs, which was identified by 53 percent of agencies. Benefits related to enhanced productivity and improved efficiency were cited by 49 percent of agencies, while improved organization and change management was another frequently identified benefit, cited by 41 percent of agencies. Improved systems interoperability was a benefit cited by 24 percent of agencies. (See figure 3.)

Figure 3: Federal Agencies' Frequently Identified EA Benefits



Source: GAO analysis of agency survey responses.

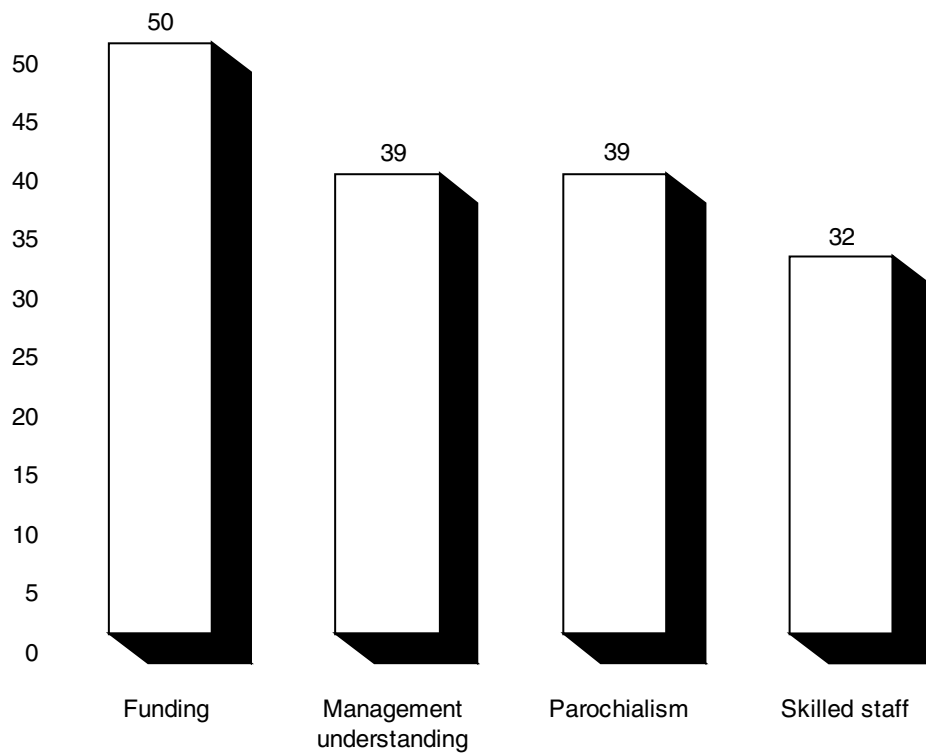
Agencies Cite Similar EA Management Challenges

Effectively developing, implementing, and maintaining an EA is a challenging endeavor. As discussed in the CIO Council–published EA management practical guide, factors critical to the successful use of EAs include obtaining top management support and commitment, ensuring that the scope of the architecture is enterprisewide, and having the requisite resources (financial and human capital) to get the job done.

The agencies that we surveyed affirmed these critical success factors by identifying them as significant EA management challenges. Specifically, about 39 percent of the agencies stated that getting top management to understand the purpose, content, and value of these architectures was a challenge. According to the CIO Council–published EA management guide, such understanding is critical to architecture programs receiving executive sponsorship. Without executive understanding and support, obtaining sufficient funding and overcoming agency component organizations’ parochialism and cultural resistance to introducing change that attempts to optimize the enterprise, rather than the “stovepiped” enterprise components, can also be a significant challenge. The agencies we surveyed agreed, with about 50 and 39 percent reporting funding and parochialism, respectively, as challenges. Additionally, 32 percent of the agencies surveyed reported that obtaining skilled staff is also a challenge. (See figure 4.)

Figure 4: Federal Agencies' Frequently Identified EA Management Challenges

Percentage of agencies



Source: GAO analysis of agency survey responses.

Customs Service Is a Model EA Management Agency

In 1998, we reported that the Customs Service lacked a complete EA and the management controls to effectively enforce one, and we made recommendations to correct these problems.²⁹ Customs agreed with our findings and recommendations, and it made addressing them a top agency priority. In April 2000, we reported that Customs had developed a complete EA.³⁰ We have since cited Customs as an example of a federal agency with an effective architecture management program.

The results of our survey and analysis of survey responses against our maturity framework affirm Customs as a role model agency for EA management. According to the survey results, Customs is the only agency that has achieved stage 5 maturity, meaning that it has satisfied all the core elements of the framework. In particular, Customs' EA is agencywide in scope, and it has been approved by the Customs CIO, Investment Review Board, and commissioner. Its EA program includes a program office and an executive steering committee responsible for EA development and maintenance. It also includes descriptions of the agency's "as is" and "to be" environments, as well as a sequencing plan for moving from the former to the latter. Customs has also developed qualitative and quantitative metrics for measuring benefits derived from using its architecture. In addition, Customs has written and approved policies and associated management processes to ensure that IT investments are compliant with the EA, and to ensure that it is proactively maintained.

²⁹*Customs Service Modernization: Architecture Must Be Complete and Enforced to Effectively Build and Maintain Systems*, GAO/AIMD-98-70 (May 5, 1998).

³⁰*U.S. Customs Service: Observations on Selected Operations and Program Issues*, GAO/T-GGD/AIMD-00-150 (April 20, 2000).

OMB Has Promoted and Is Overseeing EA Efforts, but Opportunities Exist to Strengthen Oversight Approach

Performance measurement is a core tenet of the Government Performance and Results Act of 1993.³¹ In essence, it codifies the widely recognized and accepted management axiom that one cannot manage what one cannot measure. Without the ability to measure performance and progress, management's ability to oversee a given program is greatly diminished, and the opportunities to effectively ensure that goals and objectives are met are lost.

OMB recognizes the importance of EAs and, since the 1996 passage of the Clinger-Cohen Act, has acted to promote them. For example, OMB (1) issued guidance on the purpose and use of enterprise architectures shortly after the act was passed,³² (2) issued subsequent guidance directing that agency investment in IT be based on agency EAs,³³ and (3) beginning with the fiscal year 2002 budget cycle, required agency budget submissions to show IT investments in several areas, including architecture development.³⁴ Beginning with the fiscal year 2003 budget cycle, it also required the departments and major agencies that are CIO Council members to address how IT investment decisionmaking addresses architecture alignment and, in cases in which an agency does not have an architecture, to provide a plan for developing one.³⁵ In this latter case, OMB officials told us, they are also holding meetings with agencies to ensure that proposed IT investments are justified until an architecture is completed

³¹Government Performance and Results Act of 1993, Public Law No. 103-62, August 3, 1993.

³²*Information Technology Architectures*, Office of Management and Budget Memorandum M-97-16 (June 18, 1997).

³³*Management of Federal Information Resources*, Office of Management and Budget, Circular No. A-130 (November 30, 2000).

³⁴*Preparation and Submission of Budget Estimates*, Office of Management and Budget, Circular A-11 (November 8, 2001).

³⁵CIO Council members include the Departments of Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, Housing and Urban Development, Interior, Justice, Labor, State, Transportation, the Treasury, and Veterans Affairs. Major agencies that are CIO Council members include the Army, Navy, Air Force, Environmental Protection Agency, Federal Emergency Management Agency, Central Intelligence Agency, Small Business Administration, Social Security Administration, National Aeronautics and Space Administration, Agency for International Development, General Services Administration, National Science Foundation, Nuclear Regulatory Commission, and Office of Personnel Management.

and integrated into the agency's capital planning and investment control processes. Other steps that OMB has taken are: (1) to assess the status of major department and agency architectures against selected CIO Council guidance; (2) to elevate the CIO Council's level of focus and attention on EA management by, for example, establishing an enterprise architecture committee; and (3) to begin developing business-level architectural views of certain governmentwide missions or functions, such as disaster preparedness, grants and loans, and law enforcement.

OMB's increased attention to and oversight of federal enterprise architecture are central to advancing the federal government's state of architecture maturity. However, OMB's existing oversight approach focuses on major agencies and relies largely on unverified agency submissions. This approach can be strengthened by using a more structured means of measuring agency architecture status and progress, expanding the number of agencies covered, and identifying and pursuing governmentwide solutions to common enterprise architecture challenges that agencies face. Without enhancing its governmentwide approach to overseeing EA use and employing a standard that systematically specifies the core elements of architecture management success and a practical way to measure agency efforts against this standard over time, OMB will be challenged in leading and attaining governmentwide maturation in this important area.

Conclusions

The current state of the federal government's use of EAs is mixed, but overall it is not sufficiently mature to support well-informed IT investment decisionmaking. As a result, most federal agencies currently run the serious risk of investing in IT solutions that will not overcome but will, rather, perpetuate longstanding incompatibilities and duplication within agency operational and systems environments. With recently issued federal guidance and increased OMB attention to EA management, however, the outlook for advancement in federal agency EA maturity holds promise. Nevertheless, opportunities exist to significantly improve this outlook by OMB's adopting a governmentwide, structured, and systematic approach to promoting EA use, measuring agency progress, and identifying the need for governmentwide EA management challenges. The EA maturity framework and the survey results contained in this report provide OMB, possibly in collaboration with the federal CIO Council, with the foundation for adopting such an approach.

Recommendations for Executive Action

To assist in its oversight of federal agencies' use of EAs, we recommend that the OMB director, in collaboration with the federal CIO Council, use the maturity framework and agency baseline information provided in this report as the basis for helping agencies to advance the state of their respective EA development, implementation, and maintenance efforts, and for measuring agency progress. In doing so, we further recommend that the OMB director require each of the agencies discussed in this report to (1) submit to OMB an annual update of the agency's satisfaction of each of the core elements contained in the maturity framework, and (2) have this update verified by the agency's inspector general or comparable audit function before it is submitted to OMB.

Additionally, we recommend that the director, in collaboration with the CIO Council, develop and implement a plan to address governmentwide impediments to greater agency use of EAs. At a minimum, this plan should include the two primary challenges identified in this report—agency executive management understanding of EAs and availability of EA human capital expertise.

Further, we recommend that the director report annually to the Senate Committee on Governmental Affairs and the House Committee on Government Reform on the results of its annual update of the state and progress of federal agencies EA efforts.

Agency Comments

In oral comments on a draft of this report, officials from OMB's Office of Information and Regulatory Affairs, including the Information Policy and Technology Branch chief, generally agreed with our findings and conclusions and stated that they would consider our recommendations. The officials also provided information on recent OMB actions intended to advance enterprise architecture use in the federal government. We have incorporated this information in the report. We view these recent OMB actions as positive steps. Nevertheless, we also believe that OMB can improve on these actions by implementing the recommendations in this report.

Unless you publicly announce the contents of this report earlier, we plan no further distribution of it until 30 days from the date of this letter. We will then send copies to the OMB director. Copies will also be available at our Web site at www.gao.gov.

Should you or your staff have any questions on matters discussed in this report, please contact me at (202) 512-3439. I can also be reached by e-mail at *HiteR@gao.gov*. Key contributors to this report are listed in appendix VIII.

Sincerely yours,

A handwritten signature in black ink, reading "Randolph C. Hite". The signature is written in a cursive style with a large, stylized "R" and "H".

Randolph C. Hite
Director, Information Technology Architecture
and Systems Issues

Objectives, Scope, and Methodology

Our objectives were to determine (1) the status of federal agencies' efforts to develop, implement, and maintain EAs, and (2) OMB's actions to oversee these efforts.

To address our objectives, we obtained and reviewed relevant guidance on EAs, such as OMB Memorandum 97-16 (now rescinded), entitled *Information Technology Architecture*; OMB Circular A-130, entitled *Management of Federal Information Resources*; and federal CIO Council–published guidance, including the *Federal Enterprise Architecture Framework Version 1.1* and *A Practical Guide to Federal Enterprise Architecture*. We also researched past GAO reports and guidance on management and use of enterprise architectures, and identified and reviewed relevant private-sector research on EA frameworks and management, as well as federal agencies' EA frameworks, including the *Treasury Enterprise Architecture Framework* and the Department of Defense's *Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) Architecture Framework*.

Next, we used the CIO Council–published practical guide to develop a series of questions to determine the extent to which an agency was meeting the core elements of the guide, and to determine agencies' experiences in pursuing their respective EA efforts. We then incorporated these questions into two data-collection instruments—one for federal departments (see appendix VI) and one for agencies that were either components within a department or independent agencies (see appendix VII). We pre-tested our survey instrument at one federal department and one component agency.

Prior to distributing the survey instruments, we identified 116 executive branch federal agencies to include in our survey population. These agencies consisted of all cabinet-level departments and agencies, major component agencies or bureaus within departments, and other independent agencies. To identify the 116 agencies, we reviewed federal departments' organizational charts and other information, such as component agency fiscal year 2002 budget requests. We limited the selected agencies to those identified in the *United States Government Manual* and the *Budget of the United States Government (Fiscal Year 2002)* as having budget requests in excess of \$100 million. The 116 agencies are identified in appendix II.

For each agency to be surveyed, we identified the CIO or comparable official and notified each of our work and distributed the appropriate survey instrument to each via e-mail. In addition, we discussed the purpose

and content of the survey instrument with agency officials when requested. All 116 agencies responded to our survey. Also, timing of agency responses varied, ranging from June 2001 to October 2001, and thus the determinations in this report regarding the state of EA maturity at specific agencies and groups of agencies are linked to particular points in time. Appendix III, appendix IV, and appendix V, which contain the results of our analysis of each agency's response to our survey, identify the date that each agency responded. We did not verify the accuracy of the data that the agencies reported or the effectiveness of any agency's efforts that satisfied an EA core element. However, we did contact agency officials when necessary to clarify their responses.

Next, we developed an EA management maturity framework to use in analyzing agency responses to our survey instrument. To do so, we categorized each core element of the CIO Council–published practical guide for EA management, which formed much of the content of our survey instrument, into a series of five related and hierarchical stages. In developing this hierarchy, we drew upon the core elements' implicit dependencies and sequence of presentation as presented in the guide. We also categorized these core elements into those attributes associated with effectively discharging any management function—namely, elements that demonstrate organizational commitment, such as policies and approvals; elements that provide the capability to satisfy the commitment, such as assignment of organizational roles and responsibilities; elements that demonstrate satisfaction of the commitment, such as EA plans and products; and elements that verify satisfaction of the commitment, such as measurements. We validated our framework with CIO Council and GAO officials who were the principal authors of the CIO Council–published practical guide on which the framework is based.

We then analyzed agency responses against the maturity framework's core elements to determine whether the element was satisfied. In conducting this analysis, we considered all agency responses related to a given core element of the framework. For example, if an agency reported that it had developed an EA, we reviewed responses to other survey questions to determine whether the EA had included requisite components for a complete architecture, such as the target architecture and sequencing plans for transitioning to the target environment. In instances in which agencies reported that their EAs did not include major components or did not meet the core element as defined in the framework, we placed the agencies' efforts relating to that core element at the next lowest stage of framework maturity.

After compiling agency responses and determining agencies' respective maturity stages, we analyzed responses across different slices of our agency population to determine patterns and issues. Finally, we reviewed OMB efforts to oversee federal agency EA development, including analyzing relevant policy guidance and interviewing OMB officials about ongoing and planned management actions.

We conducted our work at the 116 identified federal agencies headquarters offices in Washington, D.C., and Arlington, Virginia, from May 2001 through December 2001, in accordance with generally accepted government auditing standards.

Summary Listing of Department, Component Agency, and Independent Agency Responses against Five-Stage EA Maturity Framework

Agency	Maturity Stage
Department of Agriculture	1
Agricultural Marketing Service	1
Agricultural Research Service	1
Animal and Plant Health Inspection Service	1
Cooperative State Research, Education, and Extension Service	1
Farm Service Agency	2
Food and Nutrition Service	1
Food Safety and Inspection Service	1
Foreign Agricultural Service	1
Forest Service	2
Natural Resources Conservation Service	2
Risk Management Agency	1
Rural Utilities Service	2
Department of Commerce	3
Bureau of the Census	2
Economic Development Administration	1
International Trade Administration	1
National Oceanic and Atmospheric Administration	3
U.S. Patent and Trademark Office	4
Department of Defense	3
Ballistic Missile Defense Organization	2
Defense Advanced Research Projects Agency	1
Defense Commissary Agency	1
Defense Contract Audit Agency	2
Defense Contract Management Agency	2
Defense Information Systems Agency	1
Defense Intelligence Agency	2
Defense Legal Services Agency	1
Defense Logistics Agency	1
Defense Security Cooperation Agency	1
Defense Security Service	2
Defense Threat Reduction Agency	2
Department of the Air Force	3
Department of the Army	4
Department of the Navy	2

Appendix II
Summary Listing of Department, Component
Agency, and Independent Agency Responses
against Five-Stage EA Maturity Framework

(Continued From Previous Page)

Agency	Maturity Stage
National Imagery and Mapping Agency	2
National Security Agency	2
U.S. Marine Corps	1
Department of Education	2
Department of Energy	2
Department of Health and Human Services	1
Administration for Children and Families	1
Agency for Healthcare Research and Quality	1
Centers for Disease Control and Prevention	3
Centers for Medicare and Medicaid Services	2
Food and Drug Administration	1
Health Resources and Services Administration	1
Indian Health Service	2
Program Support Center	1
Department of Housing and Urban Development	1
Department of the Interior	2
Bureau of Indian Affairs	1
Bureau of Land Management	3
Bureau of Reclamation	1
Fish and Wildlife Service	1
Minerals Management Service	1
National Park Service	1
Office of Surface Mining Reclamation and Enforcement	2
U.S. Geological Survey	1
Department of Justice	3
Drug Enforcement Administration	2
Federal Bureau of Investigation	1
Federal Bureau of Prisons	2
Immigration and Naturalization Service	1
U.S. Marshals Service	1
Department of Labor	2
Department of State	3
Department of Transportation	2
Federal Aviation Administration	3
Federal Highway Administration	1
Federal Motor Carrier Safety Administration	2
Federal Railroad Administration	1

Appendix II
Summary Listing of Department, Component
Agency, and Independent Agency Responses
against Five-Stage EA Maturity Framework

(Continued From Previous Page)

Agency	Maturity Stage
Federal Transit Administration	1
National Highway Traffic Safety Administration	2
U.S. Coast Guard	2
Department of the Treasury	1
Bureau of Alcohol, Tobacco, and Firearms	2
Bureau of Engraving and Printing	1
Bureau of the Public Debt	3
Comptroller of the Currency	1
Federal Law Enforcement Training Center	1
Financial Management Service	2
Internal Revenue Service	4
Office of Thrift Supervision	1
Secret Service	2
U.S. Customs Service	5
U. S. Mint	2
Department of Veterans Affairs	1
Veterans Benefits Administration	1
Veterans Health Administration	2
Agency for International Development	3
Central Intelligence Agency	1
Corporation for National and Community Service	1
Environmental Protection Agency	3
Equal Employment Opportunity Commission	1
Executive Office of the President	2
Export-Import Bank	3
Federal Deposit Insurance Corporation	1
Federal Emergency Management Agency	2
Federal Energy Regulatory Commission	1
Federal Reserve System	1
Federal Retirement Thrift Investment Board	1
General Services Administration	2
Legal Services Corporation	1
National Aeronautics and Space Administration	2
National Credit Union Administration	1
National Labor Relations Board	1
Nuclear Regulatory Commission	1
Office of Personnel Management	4

Appendix II
Summary Listing of Department, Component
Agency, and Independent Agency Responses
against Five-Stage EA Maturity Framework

(Continued From Previous Page)

Agency	Maturity Stage
Peace Corps	1
Railroad Retirement Board	2
Securities and Exchange Commission	2
Small Business Administration	2
Smithsonian Institution	2
Social Security Administration	2
U.S. Postal Service	2

Detailed Comparison of Individual Department Responses against Our Five-Stage EA Maturity Framework

Department of Agriculture: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	No Yes No Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Department of Agriculture provided its survey response on July 9, 2001.

Appendix III
Detailed Comparison of Individual
Department Responses against Our Five-
Stage EA Maturity Framework

Department of Commerce: Stage 3^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes Yes Yes
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No Yes Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	Yes Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Department of Commerce provided its survey response on June 29, 2001.

Appendix III
Detailed Comparison of Individual
Department Responses against Our Five-
Stage EA Maturity Framework

Department of Defense: Stage 3^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes Yes No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	Yes Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Department of Defense provided its survey response on July 25, 2001.

Appendix III
Detailed Comparison of Individual
Department Responses against Our Five-
Stage EA Maturity Framework

Department of Education: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	Yes No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Department of Education provided its survey response on July 23, 2001.

Appendix III
Detailed Comparison of Individual
Department Responses against Our Five-
Stage EA Maturity Framework

Department of Energy: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No Yes Yes
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	No Yes Yes Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	No Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Department of Energy provided its survey response on June 28, 2001.

Appendix III
Detailed Comparison of Individual
Department Responses against Our Five-
Stage EA Maturity Framework

Department of Health and Human Services: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes No Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Department of Health and Human Services provided its survey response on August 14, 2001.

Appendix III
Detailed Comparison of Individual
Department Responses against Our Five-
Stage EA Maturity Framework

Department of Housing and Urban Development: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes Yes No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	No Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	No Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Department of Housing and Urban Development provided its survey response on June 28, 2001.

Appendix III
Detailed Comparison of Individual
Department Responses against Our Five-
Stage EA Maturity Framework

Department of the Interior: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No Yes
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Department of the Interior provided its survey response on June 29, 2001.

Appendix III
Detailed Comparison of Individual
Department Responses against Our Five-
Stage EA Maturity Framework

Department of Justice: Stage 3^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	Yes Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Department of Justice provided its survey response on July 10, 2001.

Appendix III
Detailed Comparison of Individual
Department Responses against Our Five-
Stage EA Maturity Framework

Department of Labor: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes Yes No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	Yes No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Department of Labor provided its survey response on July 2, 2001.

Appendix III
Detailed Comparison of Individual
Department Responses against Our Five-
Stage EA Maturity Framework

Department of State: Stage 3^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	Yes Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Department of State provided its survey response on July 13, 2001.

Appendix III
Detailed Comparison of Individual
Department Responses against Our Five-
Stage EA Maturity Framework

Department of Transportation: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Department of Transportation provided its survey response on June 29, 2001.

Appendix III
Detailed Comparison of Individual
Department Responses against Our Five-
Stage EA Maturity Framework

Department of the Treasury: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	Yes No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	No Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Department of the Treasury provided its survey response on June 28, 2001.

Appendix III
Detailed Comparison of Individual
Department Responses against Our Five-
Stage EA Maturity Framework

Department of Veterans Affairs: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No Yes
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	No Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	Yes No No Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Department of Veterans Affairs provided its survey response on August 17, 2001.

Detailed Comparison of Individual Component Agency Responses against Our Five-Stage EA Maturity Framework

Department of Agriculture

Agricultural Marketing Service: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No Yes Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	No No No Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	Yes Yes No No Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Agricultural Marketing Service provided its survey response on July 9, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Agriculture

Agricultural Research Service: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No No No No
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	No No No No No
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Agricultural Research Service provided its survey response on July 13, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Agriculture

Animal and Plant Health Inspection Service: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes Yes No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes No Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes No Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Animal and Plant Health Inspection Service provided its survey response on June 26, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Agriculture

Cooperative State Research, Education, and Extension Service: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	No No No Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Cooperative State Research, Education, and Extension Service provided its survey response on July 9, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Agriculture

Farm Service Agency: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes Yes Yes Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Farm Service Agency provided its survey response on July 9, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Agriculture

Food and Nutrition Service: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No No Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes No Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Food and Nutrition Service provided its survey response on July 17, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Agriculture

Food Safety and Inspection Service: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No No No No
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	No No No No No No
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Food Safety and Inspection Service provided its survey response on July 9, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Agriculture

Foreign Agricultural Service: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No No No No
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	No No No No No No
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Foreign Agricultural Service provided its survey response on July 12, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Agriculture

Forest Service: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Forest Service provided its survey response on August 3, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Agriculture

Natural Resources Conservation Service: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No Yes
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes Yes Yes No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Natural Resources Conservation Service provided its survey response on June 29, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Agriculture

Risk Management Agency: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No No No No
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	No No No No No
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Risk Management Agency provided its survey response on July 27, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Agriculture

Rural Utilities Service: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes Yes Yes Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Rural Utilities Service provided its survey response on July 13, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Commerce

Bureau of the Census: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes No Yes
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes Yes Yes Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	Yes No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Bureau of the Census provided its survey response on June 29, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Commerce

Economic Development Administration: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	No Yes No Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Economic Development Administration provided its survey response on July 10, 2001.

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Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Commerce

International Trade Administration: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	No Yes Yes Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	Yes Yes Yes Yes No
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	Yes Yes No Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The International Trade Administration provided its survey response on June 26, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Commerce

National Oceanic and Atmospheric Administration: Stage 3^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	Yes Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The National Oceanic and Atmospheric Administration provided its survey response on June 29, 2001.

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Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Commerce

U. S. Patent and Trademark Office: Stage 4^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes No Yes
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes Yes Yes Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	Yes Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The U. S. Patent and Trademark Office provided its survey response on June 29, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Defense

Ballistic Missile Defense Organization: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Ballistic Missile Defense Organization provided its survey response on July 25, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Defense

Defense Advanced Research Projects Agency: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	No No No No No
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	No No No No No
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Defense Advanced Research Projects Agency provided its survey response on July 25, 2001.

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Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Defense

Defense Commissary Agency: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	Yes Yes No Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Defense Commissary Agency provided its survey response on July 25, 2001.

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Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Defense

Defense Contract Audit Agency: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes Yes Yes
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes Yes Yes Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	Yes No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Defense Contract Audit Agency provided its survey response on July 25, 2001.

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Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Defense

Defense Contract Management Agency: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No Yes Yes
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Defense Contract Management Agency provided its survey response on July 3, 2001.

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Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Defense

Defense Information Systems Agency: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No Yes
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes No Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Defense Information Systems Agency provided its survey response on July 11, 2001.

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Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Defense

Defense Intelligence Agency: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	Yes No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Defense Intelligence Agency provided its survey response on July 25, 2001.

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Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Defense

Defense Legal Services Agency: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes Yes Yes
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes Yes Yes Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	Yes No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	Yes Yes No Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Defense Legal Services Agency provided its survey response on July 25, 2001.

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Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Defense

Defense Logistics Agency: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes No Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Defense Logistics Agency provided its survey response on July 25, 2001.

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Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Defense

Defense Security Cooperation Agency: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No No No No
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	No No No No No
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Defense Security Cooperation Agency provided its survey response on July 25, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Defense

Defense Security Service: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Defense Security Service provided its survey response on July 25, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Defense

Defense Threat Reduction Agency: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Defense Threat Reduction Agency provided its survey response on July 25, 2001.

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Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Defense

Department of the Air Force: Stage 3^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	Yes Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Department of the Air Force provided its survey response on July 27, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Defense

Department of the Army: Stage 4^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes Yes Yes Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	Yes Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Department of the Army provided its survey response on July 25, 2001.

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Five-Stage EA Maturity Framework

Department of Defense

Department of the Navy: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Department of the Navy provided its survey response on July 25, 2001.

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Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Defense

National Imagery and Mapping Agency: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The National Imagery and Mapping Agency provided its survey response on July 25, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Defense

National Security Agency: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes Yes No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	No Yes Yes No No
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The National Security Agency provided its survey response on September 27, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Defense

U. S. Marine Corps: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No No No No
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	No No No No No No
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The U. S. Marine Corps provided its survey response on July 25, 2001.

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Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Health and Human Services

Administration for Children and Families: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes No Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Administration for Children and Families provided its survey response on June 29, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Health and Human Services

Agency for Healthcare Research and Quality: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	No No No No Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Agency for Healthcare Research and Quality provided its survey response on July 12, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Health and Human Services

Centers for Disease Control and Prevention: Stage 3^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	Yes Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Centers for Disease Control and Prevention provided its survey response on July 23, 2001.

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Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Health and Human Services

Centers for Medicare and Medicaid Services: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes Yes No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Centers for Medicare and Medicaid Services provided its survey response on June 29, 2001.

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Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Health and Human Services

Food and Drug Administration: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No Yes Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	Yes No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	Yes Yes No Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Food and Drug Administration provided its survey response on July 13, 2001.

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Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Health and Human Services

Health Resources and Services Administration: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes Yes No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	No Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Health Resources and Services Administration provided its survey response on June 29, 2001.

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Department of Health and Human Services

Indian Health Service: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No Yes Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No Yes No Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Indian Health Service provided its survey response on June 29, 2001.

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Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Health and Human Services

Program Support Center: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	No No No No No
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	No No No No No No
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Program Support Center provided its survey response on June 29, 2001.

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Five-Stage EA Maturity Framework

Department of the Interior

Bureau of Indian Affairs: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	No Yes No Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Bureau of Indian Affairs provided its survey response on July 6, 2001.

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Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of the Interior

Bureau of Land Management: Stage 3^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes Yes Yes
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes Yes No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	Yes Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Bureau of Land Management provided its survey response on June 15, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of the Interior

Bureau of Reclamation: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	No Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Bureau of Reclamation provided its survey response on July 6, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of the Interior

Fish and Wildlife Service: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	Yes Yes No No Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	No Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Fish and Wildlife Service provided its survey response on July 10, 2001.

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Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of the Interior

Minerals Management Service: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No No No No
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	No No No No No No
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Minerals Management Service provided its survey response on June 29, 2001.

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Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of the Interior

National Park Service: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No No No No
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	No No No No No No
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The National Park Service provided its survey response on July 25, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of the Interior

Office of Surface Mining Reclamation and Enforcement: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Office of Surface Mining Reclamation and Enforcement provided its survey response on July 12, 2001.

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Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of the Interior

U. S. Geological Survey: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No No No No
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	No No No No No No
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The U. S. Geological Survey provided its survey response on July 16, 2001.

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Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Justice

Drug Enforcement Administration: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	Yes Yes Yes Yes No
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Drug Enforcement Administration provided its survey response on July 18, 2001.

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Detailed Comparison of Individual
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Department of Justice

Federal Bureau of Investigation: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No Yes
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	No Yes Yes Yes No
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	No Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Federal Bureau of Investigation provided its survey response on July 18, 2001.

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Detailed Comparison of Individual
Component Agency Responses against Our
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Department of Justice

Federal Bureau of Prisons: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No Yes Yes Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	Yes No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Federal Bureau of Prisons provided its survey response on July 18, 2001.

Appendix IV
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Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Justice

Immigration and Naturalization Service: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes No Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Immigration and Naturalization Service provided its survey response on July 18, 2001.

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Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Justice

U. S. Marshals Service: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	No No No No No
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	No No No No No No
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The U. S. Marshals Service provided its survey response on June 29, 2001.

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Department of Transportation

Federal Aviation Administration: Stage 3^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes Yes Yes
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No Yes Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	Yes Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Federal Aviation Administration provided its survey response on June 29, 2001.

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Department of Transportation

Federal Highway Administration: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	No No No No No
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	No No No No No No
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Federal Highway Administration provided its survey response on June 29, 2001.

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Department of Transportation

Federal Motor Carrier Safety Administration: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Federal Motor Carrier Safety Administration provided its survey response on June 29, 2001.

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Department of Transportation

Federal Railroad Administration: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No Yes Yes Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	No No No Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Federal Railroad Administration provided its survey response on June 29, 2001.

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Department of Transportation

Federal Transit Administration: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	No No No No No
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	No No No No No No
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Federal Transit Administration provided its survey response on June 29, 2001.

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Component Agency Responses against Our
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Department of Transportation

National Highway Traffic Safety Administration: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No Yes No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes No
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The National Highway Traffic Safety Administration provided its survey response on June 29, 2001.

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Department of Transportation

U. S. Coast Guard: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The U. S. Coast Guard provided its survey response on June 26, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of the Treasury

Bureau of Alcohol, Tobacco, and Firearms: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes Yes No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Bureau of Alcohol, Tobacco, and Firearms provided its survey response on July 16, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of the Treasury

Bureau of Engraving and Printing: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No No Yes No
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	No Yes Yes No No Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Bureau of Engraving and Printing provided its survey response on June 29, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of the Treasury

Bureau of the Public Debt: Stage 3^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes Yes No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	Yes Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Bureau of the Public Debt provided its survey response on July 5, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of the Treasury

Comptroller of the Currency: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	No Yes No Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Comptroller of the Currency provided its survey response on June 28, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of the Treasury

Federal Law Enforcement Training Center: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	No Yes No Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Federal Law Enforcement Training Center provided its survey response on September 5, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of the Treasury

Financial Management Service: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Financial Management Service provided its survey response on June 28, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of the Treasury

Internal Revenue Service: Stage 4^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes Yes Yes Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	Yes Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Internal Revenue Service provided its survey response on July 20, 2001.

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Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of the Treasury

Office of Thrift Supervision: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	No No No No No
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	No No No No No No
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Office of Thrift Supervision provided its survey response on June 29, 2001.

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Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of the Treasury

Secret Service: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Secret Service provided its survey response on June 29, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of the Treasury

U. S. Customs Service: Stage 5^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes Yes Yes
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes Yes Yes Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	Yes Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The U. S. Customs Service provided its survey response on July 25, 2001.

Appendix IV
Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of the Treasury

U. S. Mint: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No Yes
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The U. S. Mint provided its survey response on June 29, 2001.

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Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Veterans Affairs

Veterans Benefits Administration: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No No No No
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	No No No No No No
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Veterans Benefits Administration provided its survey response on August 2, 2001.

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Detailed Comparison of Individual
Component Agency Responses against Our
Five-Stage EA Maturity Framework

Department of Veterans Affairs

Veterans Health Administration: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes Yes Yes Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	Yes Yes Yes Yes No
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Veterans Health Administration provided its survey response on July 20, 2001.

Detailed Comparison of Individual Independent Agency Responses against Our Five-Stage EA Maturity Framework

Agency for International Development: Stage 3^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	Yes Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Agency for International Development provided its survey response on June 29, 2001.

Appendix V
Detailed Comparison of Individual
Independent Agency Responses against Our
Five-Stage EA Maturity Framework

Central Intelligence Agency: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No Yes No No Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes No Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Central Intelligence Agency provided its survey response on August 6, 2001.

Appendix V
Detailed Comparison of Individual
Independent Agency Responses against Our
Five-Stage EA Maturity Framework

Corporation for National and Community Service: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	No No Yes No Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Corporation for National and Community Service provided its survey response on July 20, 2001.

Appendix V
Detailed Comparison of Individual
Independent Agency Responses against Our
Five-Stage EA Maturity Framework

Environmental Protection Agency: Stage 3^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes Yes No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	Yes Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Environmental Protection Agency provided its survey response on June 28, 2001.

Appendix V
Detailed Comparison of Individual
Independent Agency Responses against Our
Five-Stage EA Maturity Framework

Equal Employment Opportunity Commission: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No No Yes Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	No Yes No Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Equal Employment Opportunity Commission provided its survey response on August 1, 2001.

Appendix V
Detailed Comparison of Individual
Independent Agency Responses against Our
Five-Stage EA Maturity Framework

Executive Office of the President: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No Yes No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Executive Office of the President provided its survey response on October 1, 2001.

Appendix V
Detailed Comparison of Individual
Independent Agency Responses against Our
Five-Stage EA Maturity Framework

Export-Import Bank: Stage 3^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No Yes Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	Yes Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Export-Import Bank provided its survey response on September 20, 2001.

Appendix V
Detailed Comparison of Individual
Independent Agency Responses against Our
Five-Stage EA Maturity Framework

Federal Deposit Insurance Corporation: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	No No No No No
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	No No No No No No
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Federal Deposit Insurance Corporation provided its survey response on July 20, 2001.

Appendix V
Detailed Comparison of Individual
Independent Agency Responses against Our
Five-Stage EA Maturity Framework

Federal Emergency Management Agency: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes Yes Yes
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	Yes Yes Yes No Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Federal Emergency Management Agency provided its survey response on July 12, 2001.

Appendix V
Detailed Comparison of Individual
Independent Agency Responses against Our
Five-Stage EA Maturity Framework

Federal Energy Regulatory Commission: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No Yes No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	No Yes No Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Federal Energy Regulatory Commission provided its survey response on August 27, 2001.

Appendix V
Detailed Comparison of Individual
Independent Agency Responses against Our
Five-Stage EA Maturity Framework

Federal Reserve System: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes Yes No Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	Yes No Yes No Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes No Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Federal Reserve System provided its survey response on August 23, 2001.

Appendix V
Detailed Comparison of Individual
Independent Agency Responses against Our
Five-Stage EA Maturity Framework

Federal Retirement Thrift Investment Board: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	No No No No No
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	No No No No No No
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Federal Retirement Thrift Investment Board provided its survey response on July 20, 2001.

Appendix V
Detailed Comparison of Individual
Independent Agency Responses against Our
Five-Stage EA Maturity Framework

General Services Administration: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The General Services Administration provided its survey response on July 2, 2001.

Appendix V
Detailed Comparison of Individual
Independent Agency Responses against Our
Five-Stage EA Maturity Framework

Legal Services Corporation: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No No No No
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	No No No No No
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Legal Services Corporation provided its survey response on September 4, 2001.

Appendix V
Detailed Comparison of Individual
Independent Agency Responses against Our
Five-Stage EA Maturity Framework

National Aeronautics and Space Administration: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	Yes No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The National Aeronautics and Space Administration provided its survey response on July 25, 2001.

Appendix V
Detailed Comparison of Individual
Independent Agency Responses against Our
Five-Stage EA Maturity Framework

National Credit Union Administration: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	No No No No No
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	No No No No No No
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The National Credit Union Administration provided its survey response on July 18, 2001.

Appendix V
Detailed Comparison of Individual
Independent Agency Responses against Our
Five-Stage EA Maturity Framework

National Labor Relations Board: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	No No No No No
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	No No No No No No
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The National Labor Relations Board provided its survey response on August 9, 2001.

Appendix V
Detailed Comparison of Individual
Independent Agency Responses against Our
Five-Stage EA Maturity Framework

Nuclear Regulatory Commission: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes No Yes
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	Yes No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes No Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Nuclear Regulatory Commission provided its survey response on July 23, 2001.

Appendix V
Detailed Comparison of Individual
Independent Agency Responses against Our
Five-Stage EA Maturity Framework

Office of Personnel Management: Stage 4^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes Yes Yes Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	Yes Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Office of Personnel Management provided its survey response on June 29, 2001.

Appendix V
Detailed Comparison of Individual
Independent Agency Responses against Our
Five-Stage EA Maturity Framework

Peace Corps: Stage 1^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	Yes No No Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Peace Corps provided its survey response on July 20, 2001.

Appendix V
Detailed Comparison of Individual
Independent Agency Responses against Our
Five-Stage EA Maturity Framework

Railroad Retirement Board: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	Yes No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	Yes No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Railroad Retirement Board provided its survey response on July 11, 2001.

Appendix V
Detailed Comparison of Individual
Independent Agency Responses against Our
Five-Stage EA Maturity Framework

Securities and Exchange Commission: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	Yes No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Securities and Exchange Commission provided its survey response on July 19, 2001.

Appendix V
Detailed Comparison of Individual
Independent Agency Responses against Our
Five-Stage EA Maturity Framework

Small Business Administration: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No Yes No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	Yes Yes Yes Yes
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Small Business Administration provided its survey response on June 29, 2001.

Appendix V
Detailed Comparison of Individual
Independent Agency Responses against Our
Five-Stage EA Maturity Framework

Smithsonian Institution: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe "as is" environment, "to be" environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe "as is" environment, "to be" environment, and sequencing plan. - EA scope is enterprise-focused.	No Yes Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing "as is" environment, "to be" environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Smithsonian Institution provided its survey response on July 31, 2001.

Appendix V
Detailed Comparison of Individual
Independent Agency Responses against Our
Five-Stage EA Maturity Framework

Social Security Administration: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No No No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	No No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The Social Security Administration provided its survey response on July 3, 2001.

Appendix V
Detailed Comparison of Individual
Independent Agency Responses against Our
Five-Stage EA Maturity Framework

U. S. Postal Service: Stage 2^a

Stage	Description	Satisfied?
Stage 5: Leveraging the EA for Managing Change (includes all elements from stage 4)	- Written/approved policy exists for EA maintenance. - Either EA steering committee, investment review board, or agency head has approved EA. - Metrics exist for measuring EA benefits.	No No No
Stage 4: Completing Architecture Products (includes all elements from stage 3)	- Written/approved policy exists for information technology investment compliance with EA. - EA products describe enterprise's business—and the data, applications, and technology that support it. - EA products describe “as is” environment, “to be” environment, and sequencing plan. - Agency chief information officer has approved EA.	No Yes No No
Stage 3: Developing Architecture Products (includes all elements from stage 2)	- Written/approved policy exists for EA development. - EA products are under configuration management. - EA products describe or will describe enterprise's business—and the data, applications, and technology that support it. - EA products describe or will describe “as is” environment, “to be” environment, and sequencing plan. - EA scope is enterprise-focused.	Yes No Yes Yes Yes
Stage 2: Building the EA Management Foundation	- Committee or group representing the enterprise is responsible for directing, overseeing, and/or approving EA. - Program office responsible for EA development exists. - Chief architect exists. - EA being developed using a framework and automated tool. - EA plans call for describing enterprise in terms of business, data, applications, or technology. - EA plans call for describing “as is” environment, “to be” environment, or sequencing plan.	Yes Yes Yes Yes Yes Yes
Stage 1: Creating EA Awareness	Agency is aware of EA.	Yes

^a The U. S. Postal Service provided its survey response on August 13, 2001.

Survey of Federal Departments' Enterprise Architecture Efforts



United States General Accounting Office

Survey of Federal Departments' Enterprise Architecture Efforts

Introduction

To assist Congress in its oversight of the federal government, GAO is conducting a survey of federal departments' and agencies' enterprise architecture efforts to gauge progress towards meeting Clinger-Cohen Act and OMB requirements and to identify successes that can be shared with other federal agencies. There are two versions of this survey, this version is being sent to cabinet-level departments and a different version is being sent to federal agencies.

Enterprise architectures are well-defined and enforced blueprints (i.e., descriptions) for operational and technological change. Such an architecture provides a clear and comprehensive picture of an entity, whether it is an organization (e.g., federal department, agency, or bureau) or a functional or mission area that cuts across more than one organization (e.g., financial management). This picture consists of three integrated components: (1) a snapshot of the enterprise's current operational and technological environment; (2) a snapshot of its target environment; and (3) a capital investment roadmap for transitioning (i.e. sequencing plan) from the current to the target environment.

We are requesting departments and agencies to provide information from readily available data. We are not asking that extensive analyses be performed in order to respond to these questions. Please complete this survey and return it to GAO no later than June 29, 2001.

You may return your completed survey and any supporting materials requested by mail or by fax. If you mail us your survey, the address is:

U.S. General Accounting Office
Mark T. Bird
Assistant Director
Information Technology Team
441 G Street, NW, Room 4R26
Washington, D.C. 20548

If you return your survey by fax, the fax number is (202) 512-6450 - Attn: Mark T. Bird.

We are also asking that you provide the name and telephone number of a contact for your department who can answer any questions we may have about your survey responses.

Department Contact

Name: _____

Title: _____

Organization: _____

Telephone: (____) _____

Fax: (____) _____

Email: _____

If you have any questions, please contact:

Mark T. Bird, Assistant Director
Voice: (202) 512-6260
Fax: (202) 512-6450
Email: birdm@gao.gov

Appendix VI
Survey of Federal Departments' Enterprise
Architecture Efforts

1. Which of the following best describes your department's status with respect to enterprise architecture?
(Check one.)

1. ☐ We have developed an enterprise architecture → *Skip to question 4.*
2. ☐ We do not have an enterprise architecture, but are in the process of developing one → *Skip to question 4.*
3. ☐ We do not have an enterprise architecture, but plan to develop one → *Continue with question 2.*
4. ☐ We do not have and do not plan to develop an enterprise architecture → *Skip to question 3.*

2. Please briefly describe your department's plan to develop an enterprise architecture, including the date by which you plan to have the enterprise architecture developed.

➡ If you were directed to answer question 2, you have completed the survey.
Please return it as soon as possible. Thank you.

3. If your department does not have or plan to develop an enterprise architecture, please explain why in the space below.

➡ If you were directed to answer question 3, you have completed the survey.
Please return it as soon as possible. Thank you.

Appendix VI
Survey of Federal Departments' Enterprise
Architecture Efforts

4. Which of the following best describes the scope of your department's completed or in process enterprise architecture(s). *(Check all that apply.)*

1. ☐ Department-wide, organization based
2. ☐ Department component, organization-based
3. ☐ Functional or mission area (e.g., financial management, logistics management, grant management, etc.) → Please list the functional or mission areas covered by your department's enterprise architecture:

Please follow the following instructions based on your answer to question 4.

If you checked only box #1 (Department-wide, organization-based) or checked box #1 and any other box . . .

→ Answer all of the remaining questions for your department-wide, organization-based enterprise architecture.

If you checked box #2 (Department component, organization-based), but did not check box #1 . . .

→ You have completed the survey. Please return it as soon as possible. Thank you. *(We are collecting this information directly from department components.)*

If you checked box #3 (Functional or mission area), but did not check box #1 . . .

→ You have completed the survey. Please return it as soon as possible. Thank you.

Appendix VI
Survey of Federal Departments' Enterprise
Architecture Efforts

You should answer the following questions if your department has an enterprise architecture or is in the process of developing one.

- 5.** Does (or will) this particular enterprise architecture include the following?
(Check one box for each row.)

	Yes, it does (1)	Yes, it will (2)	No (3)
A description of the department's business (i.e., mission)			
A description of the department's data that support the department's business			
A description of the department's applications that support the department's business			
A description of the agency's technology that supports the department's business			

- 6.** Does (or will) this particular enterprise architecture include the following?
(Check one box for each row.)

	Yes, it does (1)	Yes, it will (2)	No (3)
A description of the current or "as is" environment			
A description of the target or "to be" environment			
A description of the sequencing plan for moving from the "as is" to the "to be" environment			

- 6a.** If you answered "No" to any of the items in question 6, please explain why.

Appendix VI
Survey of Federal Departments' Enterprise
Architecture Efforts

7. Does your department have a written and approved policy for the development, maintenance, and use of enterprise architecture? *(Check one box for each row. If policy is written but not approved, please check "No".)*

	Yes (1)	No (2)
Development		
Maintenance		
Use		

8. Has your department established the following entities? *(Check one box for each row.)*

	Yes (1)	No (2)
Committees or groups with responsibility for such things as directing, overseeing, and/or approving the enterprise architecture.		
A program office or individuals with responsibility for such things as developing and maintaining the enterprise architecture.		

Appendix VI
Survey of Federal Departments' Enterprise
Architecture Efforts

9. Does your department's architecture program staff (including department employees and/or contractors) include the following? *(Check one box in each row.)*

	Yes (1)	No (2)
Chief Architect Heads the Enterprise Architecture Program Management Office (EAPMO), organizes and manages the EA core team, directs development of the baseline and target architecture.		
Senior Architecture Consultant Provides architecture strategy and planning consultation to the Chief Architect.		
Business Architect Analyzes and documents business processes, scenarios, and information flow.		
Applications Architect Analyzes and documents systems, internal and external interfaces, control, and data flow.		
Information Architect Analyzes and documents business information (logical and physical) and associated relationships.		
Infrastructure Architect Analyzes and documents system environments, including network communications, nodes, operating systems, applications, application servers, web and portal servers, and middleware.		
Security Systems Architect Oversees, coordinates, and documents IT security aspects of the EA, including design, operations, encryption, vulnerability, access, and the use of authentication processes.		
Technical Writer Ensures that policies, guidebooks, and other documentation within the EA repository are clear, concise, usable, and conform to configuration management standards.		
Quality Assurance Specialist Ensures that all established program and project standards, processes, and practices are met.		
Risk Management Specialist Identifies, monitors, and controls risks in light of environmental factors and constraints.		
Configuration Control Specialist Assures that all changes are identified, tracked, monitored, and appropriately documented.		
Other - Specify: _____		

Appendix VI
Survey of Federal Departments' Enterprise
Architecture Efforts

- 10.** Which of the following automated tools are being used for this enterprise architecture? For each tool being used, how satisfied or dissatisfied are you with them? *(Check yes or no in each row. If yes, check additional box.)*

	Is tool being used?	If tool is being used, are you . . .				
		Very satisfied (1)	Somewhat satisfied (2)	Neither satisfied nor dissatisfied (3)	Somewhat dissatisfied (4)	Very dissatisfied (5)
Framework by Ptech	☐ Yes → ☐ No					
Rational Rose by Rational Corp.	☐ Yes → ☐ No					
Systems Architect by Popkin	☐ Yes → ☐ No					
Microsoft Word	☐ Yes → ☐ No					
Microsoft Excel	☐ Yes → ☐ No					
Microsoft PowerPoint	☐ Yes → ☐ No					
Other - Specify:	☐ Yes →					
Other - Specify:	☐ Yes →					
Other - Specify:	☐ Yes →					

- 11.** Which of the following model(s) or framework(s) did your department use to develop this enterprise architecture? *(Check all that apply.)*

1. ☐ Command, Control, Communications, Computer, Intelligence, Surveillance, and Reconnaissance (C4ISR)
2. ☐ Federal Enterprise Architecture Framework (FEAF)
3. ☐ Treasury Enterprise Architecture Framework (TEAF)
4. ☐ National Institute of Standards and Technology Framework (NIST)
5. ☐ Zachman Framework
6. ☐ Other - Specify: _____
7. ☐ None of the above

Appendix VI
Survey of Federal Departments' Enterprise
Architecture Efforts

12. Which of the following **best describes** how your department's enterprise architecture was or is being developed? *(Check one.)*

- 1. ☐ Developed in-house using contractor support
- 2. ☐ Developed in-house without any contractor support
- 3. ☐ Acquired from a contractor

13. Was your department's enterprise architecture: *(Check one box in each row.)*

	Yes (1)	No (2)
Approved by your department's chief information officer?		
Approved by your department's enterprise architecture steering committee?		
Approved by your department's investment review board?		
Approved by the head of your department (i.e., your department's secretary)?		
Approved by other official or committee? Please specify: _____		
Submitted to OMB?		

14. We are classifying as "complete" enterprise architecture(s) that meet **any** of the criteria listed in question 13. Did you answer "Yes" to **one or more** levels of approval/submission in question 13?
(Check one and provide additional information.)

1. ☐ Yes → Please provide the following costs for your department's completed enterprise architecture:
(Note: cost figures should include all costs that have gone into the implementation of your department's enterprise architecture, including the cost of outside contractors.)

The actual cost at completion \$ _____

The average annual maintenance cost \$ _____

2. ☐ No → Please provide the estimated total cost of your department's enterprise architecture at completion:
(Note: cost figures should include all costs that have gone into the implementation of your department's enterprise architecture, including the cost of outside contractors.)

\$ _____

Appendix VI
Survey of Federal Departments' Enterprise
Architecture Efforts

15. Is your department's enterprise architecture under configuration control?

(Check one box and provide additional information if necessary.)

1. ☐ Yes → If yes, please provide → Date of current version: ____/____/____ (mm/dd/yyyy)
Current version number: _____
2. ☐ No

16. Does your department have a written policy that requires that information technology investments comply with the enterprise architecture? *(Check one.)*

1. ☐ Yes → *Continue with question 17.*
2. ☐ No → *Skip to question 18.*

17. Does your department permit waivers to its requirement that information technology investments comply with the enterprise architecture? *(Check one.)*

1. ☐ Yes, only if the request provides a written justification
2. ☐ Yes, a waiver can be granted based on an informal request
3. ☐ No, the agency does not provide for waivers to this policy

18. Was your department's decision to develop an enterprise architecture based on: 1) a business case that provided economic justification (i.e., benefits in excess of costs); 2) the need to comply with the Clinger-Cohen Act and/or OMB requirements; and/or, 3) some other factor(s) was considered? *(Check all that apply.)*

1. ☐ A business case that anticipated a positive return
2. ☐ The need to comply with Clinger-Cohen and/or OMB requirements
3. ☐ Other factor(s) - Please specify: _____
- _____
- _____
- _____
- _____
- _____
- _____

Appendix VI
Survey of Federal Departments' Enterprise
Architecture Efforts

- 19.** What are the primary quantitative and qualitative benefits that your department expected to achieve by developing an enterprise architecture?

Quantitative benefits:

- a. _____
b. _____
c. _____
d. _____

Qualitative benefits:

- e. _____
f. _____
g. _____
h. _____

- 20.** Of the benefits that you listed in question 19, to what extent, if at all, have each of them been attained thus far? *(Check one box in each row that corresponds to the benefits listed in the previous question.)*

Benefits (By letter of question 19.)	Very great extent (1)	Great Extent (2)	Moderate extent (3)	Some or little extent (4)	No extent (5)	Too early to say (6)
Quantitative benefits						
Benefit a.						
Benefit b.						
Benefit c.						
Benefit d.						
Qualitative benefits						
Benefit e.						
Benefit f.						
Benefit g.						
Benefit h.						

Appendix VI
Survey of Federal Departments' Enterprise
Architecture Efforts

21. To what extent, if at all, did the following challenges affect the development of your department's enterprise architecture? *(Check one box in each row.)*

	Very great extent (1)	Great extent (2)	Moderate extent (3)	Some or little extent (4)	No extent (5)
Top management's understanding of the importance and value of enterprise architecture					
Parochialism/cultural resistance					
Funding					
Skilled staff					
Other – Please specify: _____					
Other – Please specify: _____					
Other – Please specify: _____					

22. Has your department developed quantitative or qualitative measures (i.e., metrics) of the benefits derived from using enterprise architecture? *(Check one.)*

1. ☐ Yes → *Continue with question 23.*

2. ☐ No → *Skip to question 24.*

23. Please describe these metrics used for measuring benefits.

Survey of Federal Agencies' Enterprise Architecture Efforts



United States General Accounting Office

Survey of Federal Agencies' Enterprise Architecture Efforts

Introduction

To assist Congress in its oversight of the federal government, GAO is conducting a survey of federal departments' and agencies' enterprise architecture efforts to gauge progress towards meeting Clinger-Cohen Act and OMB requirements and to identify successes that can be shared with other federal agencies. There are two versions of this survey, this version is being sent to federal agencies and a different version is being sent to cabinet-level departments.

Enterprise architectures are well-defined and enforced blueprints (i.e., descriptions) for operational and technological change. Such an architecture provides a clear and comprehensive picture of an entity, whether it is an organization (e.g., federal department, agency, or bureau) or a functional or mission area that cuts across more than one organization (e.g., financial management). This picture consists of three integrated components: (1) a snapshot of the enterprise's current operational and technological environment; (2) a snapshot of its target environment; and (3) a capital investment roadmap for transitioning (i.e. sequencing plan) from the current to the target environment.

We are requesting departments and agencies to provide information from readily available data. We are not asking that extensive analyses be performed in order to respond to these questions. Please complete this survey and return it to GAO no later than July 20, 2001.

You may return your completed survey and any supporting materials requested by mail or by fax. If you mail us your survey, the address is:

U.S. General Accounting Office
Mark T. Bird
Assistant Director
Information Technology Team
441 G Street, NW, Room 4R26
Washington, D.C. 20548

If you return your survey by fax, the fax number is (202) 512-6450 - Attn: Mark T. Bird.

We are also asking that you provide the name and telephone number of a contact for your agency who can answer any questions we may have about your survey responses.

Agency Contact

Name: _____

Title: _____

Organization: _____

Telephone: (____) _____

Fax: (____) _____

Email: _____

If you have any questions, please contact:

Mark T. Bird, Assistant Director
Voice: (202) 512-6260
Fax: (202) 512-6450
Email: birdm@gao.gov

Appendix VII
Survey of Federal Agencies' Enterprise
Architecture Efforts

1. Which of the following best describes your agency's status with respect to enterprise architecture? *(Check one.)*

- 1. ☐ We have developed an enterprise architecture → *Skip to question 4.*
- 2. ☐ We do not have an enterprise architecture, but are in the process of developing one → *Skip to question 4.*
- 3. ☐ We do not have an enterprise architecture, but plan to develop one → *Continue with question 2.*
- 4. ☐ We do not have and do not plan to develop an enterprise architecture → *Skip to question 3.*

2. Please briefly describe your agency's plan to develop an enterprise architecture, including the date by which you plan to have the enterprise architecture developed.

➡ If you were directed to answer question 2, you have completed the survey.
Please return it as soon as possible. Thank you.

3. If your agency does not have or plan to develop an enterprise architecture, please explain why in the space below.

➡ If you were directed to answer question 3, you have completed the survey.
Please return it as soon as possible. Thank you.

4. Which of the following best describes the scope of your agency's completed or in process enterprise architecture(s). *(Check all that apply.)*

Appendix VII
Survey of Federal Agencies' Enterprise
Architecture Efforts

1. ☐ Agency-wide, organization-based
2. ☐ Agency component, organization-based
3. ☐ Functional or mission area (e.g., financial management, logistics management, grant management, etc.) → Please list the functional or mission areas covered by your agency's enterprise architecture:

Please follow the following instructions based on your answer to question 4.

If you checked only box #1 (Agency-wide, organization-based) or checked box #1 **and any other box** . . .

→ Answer all of the remaining questions for that **agency-wide, organization based** enterprise architecture.

If you checked box #2 (Agency component, organization-based), **but did not check box #1** . . .

→ Answer all of the remaining questions for that **agency component, organization-based** enterprise architecture.

If you checked box #3 (Functional or mission area) **and no other box** . . .

→ You have completed the survey. Please return it as soon as possible. Thank you.

**Appendix VII
Survey of Federal Agencies' Enterprise
Architecture Efforts**

You should only answer the following questions if your agency has an enterprise architecture or is in the process of developing one.

- 5.** Does (or will) this particular enterprise architecture include the following?
(Check one box for each row.)

	Yes, it does (1)	Yes, it will (2)	No (3)
A description of the agency's business (i.e., mission)			
A description of the agency's data that support the agency's business			
A description of the agency's applications that support the agency's business			
A description of the agency's technology that supports the agency's business			

- 6.** Does (or will) this particular enterprise architecture include the following?
(Check one box for each row.)

	Yes, it does (1)	Yes, it will (2)	No (3)
A description of the current or "as is" environment			
A description of the target or "to be" environment			
A description of the sequencing plan for moving from the "as is" to the "to be" environment			

- 6a.** If you answered "No" to any of the items in question 6, please explain why.

Appendix VII
Survey of Federal Agencies' Enterprise
Architecture Efforts

7. Does your agency have a written and approved policy for the development, maintenance, and use of enterprise architecture? *(Check one box for each row. If policy is written but not approved, please check "No".)*

	Yes (1)	No (2)
Development		
Maintenance		
Use		

8. Has your agency established the following entities? *(Check one box for each row.)*

	Yes (1)	No (2)
Committees or groups with responsibility for such things as directing, overseeing, and/or approving the enterprise architecture.		
A program office or individuals with responsibility for such things as developing and maintaining the enterprise architecture.		

Appendix VII
Survey of Federal Agencies' Enterprise
Architecture Efforts

9. Does your agency's architecture program staff (including agency employees and/or contractors) include the following? *(Check one box in each row.)*

	Yes (1)	No (2)
Chief Architect Heads the Enterprise Architecture Program Management Office (EAPMO), organizes and manages the EA core team, directs development of the baseline and target architecture.		
Senior Architecture Consultant Provided architecture strategy and planning consultation to the Chief Architect.		
Business Architect Analyzes and documents business processes, scenarios, and information flow.		
Applications Architect Analyzes and documents systems, internal and external interfaces, control, and data flow.		
Information Architect Analyzes and documents business information (logical and physical) and associated relationships.		
Infrastructure Architect Analyzes and documents system environments, including network communications, nodes, operating systems, applications, application servers, web and portal servers, and middleware.		
Security Systems Architect Oversees, coordinates, and documents IT security aspects of the EA, including design, operations, encryption, vulnerability, access, and the use of authentication processes.		
Technical Writer Ensures that policies, guidebooks, and other documentation within the EA repository are clear, concise, usable, and conform to configuration management standards.		
Quality Assurance Specialist Ensures that all established program and project standards, processes, and practices are met.		
Risk Management Specialist Identifies, monitors, and controls risks in light of environmental factors and constraints.		
Configuration Control Specialist Assures that all changes are identified, tracked, monitored, and appropriately documented.		
Other - Specify: _____		

Appendix VII
Survey of Federal Agencies' Enterprise
Architecture Efforts

- 10.** Which of the following automated tools are being used for this enterprise architecture? For each tool being used, how satisfied or dissatisfied are you with them? *(Check yes or no in each row. If yes, check additional box.)*

		If tool is being used, are you . . .				
	Is tool being used?	Very satisfied (1)	Somewhat satisfied (2)	Neither satisfied nor dissatisfied (3)	Somewhat dissatisfied (4)	Very dissatisfied (5)
Framework by Ptech	☐ Yes → ☐ No					
Rational Rose by Rational Corp.	☐ Yes → ☐ No					
Systems Architect by Popkin	☐ Yes → ☐ No					
Microsoft Word	☐ Yes → ☐ No					
Microsoft Excel	☐ Yes → ☐ No					
Microsoft PowerPoint	☐ Yes → ☐ No					
Other - Specify:	☐ Yes →					
Other - Specify:	☐ Yes →					
Other - Specify:	☐ Yes →					

- 11.** Which of the following model(s) or framework(s) did your agency use to develop this enterprise architecture? *(Check all that apply.)*

1. ☐ Command, Control, Communications, Computer, Intelligence, Surveillance, and Reconnaissance (C4ISR)
2. ☐ Federal Enterprise Architecture Framework (FEAF)
3. ☐ Treasury Enterprise Architecture Framework (TEAF)
4. ☐ National Institute of Standards and Technology Framework (NIST)
5. ☐ Zachman Framework
6. ☐ Other - Specify: _____
7. ☐ None of the above

Appendix VII
Survey of Federal Agencies' Enterprise
Architecture Efforts

12. Which of the following **best describes** how your agency's enterprise architecture was or is being developed? *(Check one.)*

- 1. ☐ Developed in-house using contractor support
- 2. ☐ Developed in-house without any contractor support
- 3. ☐ Acquired from a contractor

13. Was your agency's enterprise architecture: *(Check one box in each row.)*

	Yes (1)	No (2)
Approved by your agency's chief information officer?		
Approved by your agency's enterprise architecture steering committee?		
Approved by your agency's investment review board?		
Approved by the head of your agency?		
Approved by other official or committee?		
Please specify: _____		
Submitted to OMB?		

14. We are classifying as "complete" enterprise architecture(s) that meet **any** of the criteria listed in question 13. Did you answer "Yes" to **one or more** levels of approval/submission in question 13?
(Check one and provide additional information.)

- 1. ☐ Yes → Please provide the following costs for your agency's completed enterprise architecture:
(Note: cost figures should include all costs that have gone into the implementation of your agency's enterprise architecture, including the cost of outside contractors.)

The actual cost at completion \$ _____

The average annual maintenance cost \$ _____
- 2. ☐ No → Please provide the estimated total cost of your agency's enterprise architecture at completion:
(Note: cost figures should include all costs that have gone into the implementation of your agency's enterprise architecture, including the cost of outside contractors.)

\$ _____

Appendix VII
Survey of Federal Agencies' Enterprise
Architecture Efforts

15. Is your agency's enterprise architecture under configuration control?
(Check one box and provide additional information if necessary.)

1. ☐ Yes → If yes, please provide → Date of current version: ____/____/____ (mm/dd/yyyy)
Current version number: _____
2. ☐ No

16. Does your agency have a written policy that requires that information technology investments comply with the enterprise architecture? (Check one.)

1. ☐ Yes → *Continue with question 17.*
2. ☐ No → *Skip to question 18.*

17. Does your agency permit waivers to its requirement that information technology investments comply with the enterprise architecture? (Check one.)

1. ☐ Yes, only if the request provides a written justification
2. ☐ Yes, a waiver can be granted based on an informal request
3. ☐ No, the agency does not provide for waivers to this policy

18. Was your agency's decision to develop an enterprise architecture based on: 1) a business case that provided economic justification (i.e., benefits in excess of costs); 2) the need to comply with the Clinger-Cohen Act and/or OMB requirements; and/or, 3) some other factor(s) was considered?
(Check all that apply.)

1. ☐ A business case that anticipated a positive return
2. ☐ The need to comply with Clinger-Cohen and/or OMB requirements
3. ☐ Other factor(s) - Please specify: _____
- _____
- _____
- _____
- _____

Appendix VII
Survey of Federal Agencies' Enterprise
Architecture Efforts

- 19.** What are the primary quantitative and qualitative benefits that your agency expected to achieve by developing an enterprise architecture?

Quantitative benefits:

- a. _____
b. _____
c. _____
d. _____

Qualitative benefits:

- e. _____
f. _____
g. _____
h. _____

- 20.** Of the benefits that you listed in question 19, to what extent, if at all, have each of them been attained thus far? *(Check one box in each row that corresponds to the benefits listed in the previous question.)*

Benefits (By letter of question 19.)	Very great extent (1)	Great Extent (2)	Moderate extent (3)	Some or little extent (4)	No extent (5)	Too early to say (6)
Quantitative benefits						
Benefit a.						
Benefit b.						
Benefit c.						
Benefit d.						
Qualitative benefits						
Benefit e.						
Benefit f.						
Benefit g.						
Benefit h.						

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21. To what extent, if at all, did the following potential challenges affect the development of your agency's enterprise architecture? *(Check one box in each row.)*

	Very great extent (1)	Great extent (2)	Moderate extent (3)	Some or little extent (4)	No extent (5)
Top management's understanding of the importance and value of enterprise architecture					
Parochialism/cultural resistance					
Funding					
Skilled staff					
Other – Please specify: _____					
Other – Please specify: _____					
Other – Please specify: _____					

22. Has your agency developed quantitative or qualitative measures (i.e., metrics) of the benefits derived from using enterprise architecture? *(Check one.)*

1. ☐ Yes → *Continue with question 23.*

2. ☐ No → *Skip to question 24.*

23. Please describe these metrics used for measuring benefits.

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24. Is your agency a sub-component of a cabinet level federal department such as the Department of Treasury or USDA? *(Check one.)*

- 1. ☐ Yes → *Continue with question 25.*
- 2. ☐ No → *Skip to question 27.*

25. To what extent, if at all, has your agency's **department** provided oversight of your enterprise architecture efforts? *(Check one.)*

- 1. ☐ Very great extent
- 2. ☐ Great extent
- 3. ☐ Moderate extent
- 4. ☐ Some or little extent
- 5. ☐ No extent

26. Was your agency's enterprise architecture approved by your **department's** chief information officer? *(Check one.)*

- 1. ☐ Yes
- 2. ☐ No

27. Is your agency's enterprise architecture published? *(Check one.)*

- 1. ☐ Yes → *Please enclose a copy of any high-level, supporting architecture products with your response.*
- 2. ☐ No

28. Please provide any additional comments you would like to make on your agency's enterprise architecture program in the space provided.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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GAO Contact And Staff Acknowledgments

GAO Contact	Mark T. Bird, (202) 512-6260
Staff Acknowledgments	In addition to the person named above, Nabajyoti Barkakati, Holly Booth, Michael P. Fruitman, Pamlutricia Greenleaf, and Stuart M. Kaufman made key contributions to this report.

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