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Congressional Defense Committees

Subject: *DOD Business Systems Modernization: Limited Progress in Development of Business Enterprise Architecture and Oversight of Information Technology Investments*

The Department of Defense's (DOD) long-standing business systems problems adversely affect the economy, effectiveness, and efficiency of its business operations and have resulted in a lack of adequate transparency and appropriate accountability across all of its major business areas. To help the department transform its operations, we recommended¹ in 2001 that DOD develop an enterprise architecture to guide and constrain its almost \$20 billion annual investment in business systems and that it establish the investment controls needed to implement this architecture. In July 2001, DOD initiated a program² to, among other things, develop a DOD business enterprise architecture (architecture). This effort is an essential part of the Secretary of Defense's broad initiative to "transform the way the department works and what it works on."

Because DOD is one of the largest and most complex organizations in the world, overhauling its business operations and supporting systems represents a huge management challenge. In fiscal year 2003, DOD reported that its operations involved over \$1 trillion in assets, nearly \$1.6 trillion in liabilities, approximately 3.3 million military and civilian personnel, and disbursements of over \$416 billion. To support its business operations, DOD reported that it relies on about 2,300 business systems, including accounting, acquisition, logistics, and personnel systems. The department requested about \$19 billion—about \$4.8 billion for business systems³

¹U.S. General Accounting Office, *Information Technology: Architecture Needed to Guide Modernization of DOD's Financial Operations*, GAO-01-525 (Washington, D.C.: May 17, 2001).

²The Business Management Modernization Program is the department's business transformation initiative; it encompasses defense policies, processes, people, and systems that guide, perform, or support all aspects of business management—including development and implementation of the business enterprise architecture. The Under Secretary of Defense (Comptroller) established a DOD-wide program management office called Business Modernization and Systems Integration (BMSI), to oversee and manage the program.

³Business systems include financial and nonfinancial systems, such as civilian personnel, finance, health, logistics, military personnel, procurement, and transportation, with the common element being the generation or use of financial data to support DOD's business operations.

modernization and about \$14 billion for operation and maintenance of these systems—in fiscal year 2004.

Recognizing the importance of DOD's efforts to transform its business operations and systems through the use of an enterprise architecture, the Congress included provisions in the National Defense Authorization Act for Fiscal Year 2003⁴ that were aimed at developing and effectively implementing a well-defined architecture. Specifically, section 1004 of this act required that DOD (1) develop, by May 1, 2003, a financial management enterprise architecture⁵ and a transition plan for implementing the architecture that meets certain requirements and (2) review financial system improvements with proposed obligations of funds in amounts exceeding \$1 million to determine if those system improvements meet specific conditions that are called for in the act. The act also directed us to assess actions that DOD has taken to comply with these requirements. In July⁶ and September 2003,⁷ we reported on DOD's actions and made a number of recommendations to assist DOD in its efforts to effectively develop and implement an architecture and to guide and constrain its business systems investments.

The act further requires that the Secretary of Defense submit an annual report not later than March 15 of each year from 2004 through 2007 to congressional defense committees on its progress in implementing the architecture, including the transition plan. Additionally, the act directs us to submit to congressional defense committees, within 60 days of DOD's report submission, an assessment of DOD's actions taken to comply with these requirements. (See enc. I for a copy of section 1004 of the act.) DOD submitted its first annual report on March 15, 2004. This report is our assessment of DOD's March 15, 2004 report. As agreed with your offices, we determined (1) the actions DOD has taken to address our previous recommendations regarding the development and implementation of the architecture and (2) the actions DOD is taking to ensure its ongoing and planned investments will be consistent with its evolving architecture.

⁴Bob Stump National Defense Authorization Act for Fiscal Year 2003, Pub. L. No. 107-314, § 1004, 116 Stat. 2458, 2629 (Dec. 2, 2002).

⁵In May 2003, the DOD Comptroller changed the architecture name from the Financial Management Enterprise Architecture to the Business Enterprise Architecture to reflect the transformation of departmentwide business operations and supporting systems, including accounting and finance, budget formulation, acquisition, inventory management, logistics, personnel, and property management systems.

⁶U.S. General Accounting Office, *DOD Business Systems Modernization: Summary of GAO's Assessment of the Department of Defense's Initial Business Enterprise Architecture*, GAO-03-877R (Washington, D.C.: July 7, 2003).

⁷U.S. General Accounting Office, *DOD Business Systems Modernization: Important Progress Made to Develop Business Enterprise Architecture, but Much Work Remains*, GAO-03-1018 (Washington, D.C.: Sept. 19, 2003).

We performed our work from December 2003 through April 2004 in accordance with U.S. generally accepted government auditing standards. Details on our scope and methodology are in enclosure II.

Results in Brief

Since our last review—and after 3 years of effort and over \$203 million in obligations—we have not seen any significant change in the content of DOD’s architecture or in DOD’s approach to investing billions of dollars annually in existing and new systems. Few actions have been taken to address the recommendations we made in our September 2003⁸ report, which were aimed at improving DOD’s plans for developing the next version of the architecture and implementing the institutional means for selecting and controlling both planned and ongoing business systems investments. To DOD’s credit, it has established, for example, a group under the Business Management Modernization Program (program) steering committee⁹ to facilitate communication and coordination across the domains¹⁰ for modernization program activities, including extending and evolving the architecture. However, DOD has not yet adopted key architecture management best practices¹¹ and has not added the scope and detail to its architecture that we previously identified as missing. Further, DOD has not yet implemented an effective management structure and processes to provide adequate control and accountability over its \$5 billion annual investment in business systems modernization. Additionally, the department does not have reasonable assurance that it is in compliance with the National Defense Authorization Act for Fiscal Year 2003, which requires DOD’s Comptroller to review all system improvements with obligations exceeding \$1 million.

Regarding architecture management best practices, DOD has not yet implemented key elements, such as assigning accountability and responsibility for directing, overseeing, and approving the architecture. In addition, it has not explicitly defined performance metrics to evaluate the architecture’s quality, content, and utility. With

⁸GAO-03-1018.

⁹The steering committee, made up of senior leaders from across the department, is advisory in nature and is not accountable for directing, overseeing, and approving the architecture.

¹⁰DOD has six departmental domains, which are (1) accounting and finance, (2) acquisition, (3) human resources management, (4) installations and environment, (5) logistics, and (6) strategic planning and budgeting. It also has one enterprise information environment mission area. The domains and the mission area, comprised of the Under Secretaries of Defense and the Assistant Secretary of Defense for Networks and Information Integration/DOD Chief Information Officer, have authority, responsibility, and accountability within their domains for business transformation, implementation of the architecture, development and execution of the transition plan, portfolio management, and establishment of a structure to ensure representation of the DOD components and the appropriate federal agencies.

¹¹U.S. General Accounting Office, *Information Technology: A Framework for Assessing and Improving Enterprise Architecture Management* (Version 1.1), GAO-03-584G (Washington, D.C.: April 2003).

respect to the architectural content, DOD's latest version of the architecture does not include many of the key elements of a well-defined "As Is," "To Be," and transition plan that we previously reported as not being satisfied.¹² For example, the "To Be" environment does not provide sufficient descriptive content related to future business operations and supporting technology to permit effective acquisition and implementation of system solutions and associated operational change. Similarly, DOD's verification and validation contractor has concluded that this latest version of the architecture retains most of the limitations that the initial version had. Moreover, DOD has not yet defined specific plans, including milestones, detailing how it intends to extend and evolve the architecture to incorporate this missing content. For example, the program's first objective for increment one—to enable asset accountability, total force visibility, and an unqualified audit opinion on DOD's fiscal year 2007 consolidated financial statements—is not supported by a DOD-wide plan of action, and the individual component plans for accomplishing this objective may not be linked to the program's activities, including the architecture. According to DOD, it will not have the plans on how the capabilities for increment one will be achieved until August 2004.

DOD has also made limited progress in addressing our recommendations aimed at establishing and implementing effective investment management processes and, therefore, continues to lack effective management oversight and control over ongoing business systems modernization investments. While DOD has recently issued a policy that assigns investment management responsibilities to the domains, the policy has not yet been implemented, and DOD has not clearly defined the roles and responsibilities of the domains, established common investment criteria, and conducted a comprehensive review of its existing business systems to ensure that they are consistent with the architecture. Further, each of the DOD components continues to receive its own funding and make its own parochial investment decisions. Moreover, DOD has not yet established and implemented an effective process for ensuring that system improvements with obligations exceeding \$1 million are submitted to DOD's Comptroller for review and to determine whether they are consistent with the architecture, as required by the National Defense Authorization Act for Fiscal Year 2003. Based upon a comparison of limited information provided by the military services and defense agencies, we identified a total of \$863 million in obligations for improvements that exceeded \$1 million each but had not been submitted to DOD's Comptroller for review and determination.

The department acknowledges that it still has much more to do, including developing the architecture to a necessary level of detail, defining specific performance metrics, and clarifying the roles and responsibilities associated with managing the domains' portfolios of business systems and ensuring that these systems comply with the architecture. The limited progress that DOD has made is due, in part, to the lack of clearly assigned, accountable, and sustained program leadership and to changes in the program direction and priorities. For example, from May 2003 to February 2004, there was no program manager to identify, direct, and execute program activities.

¹²GAO-03-1018.

Our experience in reviewing other challenged architecture efforts shows that these efforts have suffered from limited senior management understanding of and commitment to an architecture and from cultural resistance to having and using one. Cultural resistance to change, organization component parochialism, and stovepiped operations are all evident at DOD.

Because many of our prior recommendations—for managing architecture development, maintenance, and implementation and for controlling ongoing and planned investments in business systems—remain open, we are not making any new recommendations in this report, but we are reiterating the 22 open recommendations that we made in our May 2001,¹³ February 2003,¹⁴ and September 2003¹⁵ reports. (Enc. III contains details on the status of all of our prior recommendations, including our assessment of DOD's actions.) It is imperative that DOD act swiftly to implement these recommendations. If it does not, the prognosis for this program is bleak, which in turn puts the department's business transformation efforts in jeopardy.

In written comments, which are reprinted in enclosure IV, DOD agreed with our assessment that the department's long-standing business systems problems have resulted in a lack of adequate transparency and appropriate accountability across all major business areas and that development and use of an architecture is necessary to transforming its business operations and supporting systems. In response to our characterization that progress has been limited, DOD stated that, over the past 3 years, progress has been slower than either GAO or DOD would prefer but that it has been significant, despite appearances to the contrary. In support of its view, DOD provided an extensive package of information. We considered this information, most of which we had previously evaluated. The willingness of DOD's leadership to tackle the department's decades-old problems with its business operations and supporting systems represents a major step forward. However, we remain convinced that it is fair to characterize DOD's progress in developing a well-defined architecture and implementing effective management oversight and control over its business systems as limited. As a result, we did not make any changes to this report.

¹³GAO-01-525.

¹⁴U.S. General Accounting Office, *DOD Business Systems Modernization: Improvements to Enterprise Architecture Development and Implementation Efforts Needed*, GAO-03-458 (Washington, D.C.: Feb. 28, 2003).

¹⁵GAO-03-1018.

Background

Prior Reviews of DOD's Architecture Efforts Have Identified Challenges and Weaknesses

Over the last 3 years, we have reported¹⁶ that one of the key elements to successfully meeting DOD's financial and related business management challenges is establishing and implementing an enterprise architecture, or modernization blueprint. An enterprise architecture provides a clear and comprehensive picture of an entity, whether it is an organization (e.g., federal department or agency) or a functional or mission area that cuts across more than one organization (e.g., financial management). This picture consists of snapshots of both the enterprise's current or "As Is" operational and technological environment and its target or "To Be" environment, as well as a capital investment road map for transitioning from the current to the target environment. These snapshots further consist of "views," which are basically one or more architecture products that provide conceptual or logical representations of the enterprise. We have made numerous recommendations to assist DOD in successfully developing the architecture and using it to gain control over its ongoing business systems investments. Enclosure III contains details on the status of all of our prior recommendations, including our assessment of DOD's actions.

In May 2001¹⁷, we reported that the department did not have an architecture for its financial and financial-related business operations, nor the management structures, processes, and controls in place to effectively develop and implement one. We reported that if the department continued to spend billions of dollars on new and modified systems, independently from one another and outside the context of an architecture, this would result in more processes and systems that are duplicative, not interoperable, and unnecessarily costly to maintain and interface. We made eight recommendations aimed at providing the means for effectively developing and implementing an architecture. The Secretary of Defense established a program in July 2001 to develop and implement an architecture. In April 2002, DOD entered into an agreement with International Business Machines (IBM) pursuant to a governmentwide General Services Administration contract, under which DOD issued task orders for services to begin developing the architecture.

During the first year of DOD's architecture development, in 2002, we reviewed the department's efforts and recognized that it was undertaking a challenging and

¹⁶GAO-01-525; U.S. General Accounting Office, *DOD Financial Management: Important Steps Underway But Reform Will Require a Long-term Commitment*, GAO-02-784T (Washington, D.C.: June 4, 2002); and U.S. General Accounting Office, *Department of Defense: Further Actions Needed to Establish and Implement a Framework for Successful Business Transformation*, GAO-04-626T (Washington, D.C.: Mar. 31, 2004).

¹⁷GAO-01-525.

ambitious task and following some architecture best practices and information technology (IT) investment management processes and controls. We also identified challenges and weaknesses in DOD's architecture efforts. For example, in a February 2003 report,¹⁸ we pointed out that DOD had not yet (1) established a governance structure and process controls needed to ensure ownership of and accountability for the architecture across the department, (2) clearly communicated to intended stakeholders its purpose, scope, and approach for developing the architecture, and (3) defined and implemented an independent quality assurance process. We also reported that DOD had yet to establish the necessary departmental investment governance structure and process controls needed to adequately align ongoing investments with its architectural goals and direction. We made six recommendations aimed at enhancing DOD's ability to further develop its architecture and guide and constrain its business systems modernization investments.

Our March 2003¹⁹ report noted that the draft version of the architecture did not include a number of items recommended by relevant architectural guidance and that DOD's plans would not fully satisfy the requirements of the National Defense Authorization Act for Fiscal Year 2003. For example, the draft architecture did not include a "To Be" security view, which defines the security requirements, including relevant standards to be applied in implementing security policies, procedures, and controls. DOD officials agreed with our preliminary assessment of the architecture and stated that subsequent versions of the architecture would provide these missing details.

In July and September 2003,²⁰ we reported that although DOD had expended tremendous effort and resources in complying with statutory requirements for developing and implementing a well-defined architecture, the initial version of its architecture, including the transition plan, did not adequately address the statutory requirements and other relevant architectural requirements. For example, the "As Is" environment did not include descriptions of the current business operations in terms of entities and people who perform the functions, processes, and activities and the locations where these are performed. The "To Be" environment did not include descriptions of actual systems to be developed or acquired to support future business operations and the physical infrastructure that would be needed to support the business systems. The transition plan did not include time frames for phasing out existing systems within DOD's reported current inventory of about 2,300 business systems. Overall, the department's initial version of the architecture did not contain sufficient scope and detail either to satisfy the act's requirements or to effectively guide and constrain the departmentwide business transformation and systems

¹⁸GAO-03-458.

¹⁹U.S. General Accounting Office, *Information Technology: Observations on Department of Defense's Draft Enterprise Architecture*, GAO-03-571R (Washington, D.C.: Mar. 28, 2003).

²⁰GAO-03-877R and GAO-03-1018.

modernization. In our September 2003 report²¹, we reiterated the open recommendations that we had made in our May 2001²² and February 2003²³ reports, and we made 10 new recommendations aimed at improving DOD's plans for developing the next version of the architecture and implementing the institutional means for selecting and controlling both planned and ongoing business systems investments. To date, DOD has yet to address 22 of our recommendations.

Funding Status of Architecture Program

As of March 12, 2004, about \$258 million had been appropriated to support the program, of which the department reported having obligated over \$203 million and having made disbursements of \$111 million since the program began in 2002. Table 1 shows the reported status of program funding by appropriation and fiscal year.

²¹ GAO-03-1018.

²² GAO-01-525.

²³ GAO-03-458.

Table 1: Reported Funding Status of DOD’s Business Management Modernization Program as of March 12, 2004
(Dollars in millions)

Appropriation	Appropriated	Obligated	Unobligated^a	Disbursed	Unliquidated^b
Fiscal year 2002/2003 Research, Development, Test, and Evaluation (RDT&E) – Defensewide (DW) ^c	\$94.5	\$94.5	\$0.0	\$83.0	\$11.5
Fiscal year 2003/2004 RDT&E –DW ^d	67.2	67.2	0.0	11.9	55.3
Fiscal year 2004/2005 RDT&E – DW ^e	45.1	8.5	36.6	0.0	8.5
Fiscal year 2003 Operations and Maintenance (O&M) – DW ^f	24.9	24.9	0.0	16.1	8.8
Fiscal year 2004 O&M- DW ^g	26.1	8.3	17.8	0.0	8.3
Total	\$257.8	\$203.4	\$54.4	\$111.0	\$92.4

Source: Unaudited funding information contained in DOD’s March 15, 2004 report to congressional defense committees. We did not validate the accuracy and reliability of the funding information reported.

^a Unobligated balances are the differences between funds appropriated and obligated; they represent funds that have not been obligated for expenditure. GAO’s calculations are based on DOD’s reported data.

^b Unliquidated balances are the differences between the funds obligated and disbursed; they represent funds that have been obligated but have not yet been paid. GAO’s calculations are based on DOD’s reported data.

^c The fiscal year 2002/2003 RDT&E funds supported the initial delivery of the architecture, transition plan, and change management and communications initiatives.

^d The fiscal year 2003/2004 RDT&E funds were used to refine the architecture through business process modeling/reengineering for the program’s first increment and to fund test and evaluation activities, verification and validation efforts, and engineering support.

^e The fiscal year 2004/2005 RDT&E funds will be used to complete the program’s first increment and begin work on the second increment and to fund the integration of the architecture, engineering support, and test and evaluation activities.

^f The fiscal year 2003 O&M funds were used for salaries, facilities, supplies, and program management support contracts.

^g The fiscal year 2004 O&M funds are being used for salaries, facilities, supplies, and program management support contracts.

DOD Has Taken Few Actions to Address Our Previous Recommendations

DOD has taken some steps since our last review, but it has not yet (1) implemented key architecture management best practices,²⁴ such as assigning accountability and responsibility for directing, overseeing, and approving the architecture to a committee or group comprised of representatives from across DOD's major organization components, (2) revised the architecture products to include the missing scope and detail needed to guide and constrain the implementation of system solutions, and (3) clearly defined near-term and long-term plans for guiding its transformation activities. Until the department addresses these key elements to fully satisfy relevant architectural guidance, it will be challenged in its ability to produce an architecture that is sufficient to guide and constrain its business operations and systems modernization efforts. In response to our recommendations, DOD has taken some actions, including establishing a group to facilitate communication and coordination across the domains for program activities; beginning to establish a configuration change management process; recently issuing a policy governing the development, maintenance, and implementation of the architecture; and updating the initial version of the architecture. However, these actions are not sufficient and do not fully address our concerns.

DOD Has Not Yet Implemented Key Architecture Management Best Practices

DOD's actions have not been adequate to address architecture management best practices or our previous recommendations. Since our last report, the department has taken some actions in response to our recommendations concerning the need to implement an effective architecture management program. First, in September 2003, it formally established the Domain Owners Integration Team (DO/IT), which reports to the steering committee. The DO/IT is comprised of the various senior executives from each domain and the Business Modernization and Systems Integration office. The DO/IT is responsible for facilitating communication and coordination across the domains for program activities, including extending and evolving the architecture. According to program officials, the DO/IT's role is continuing to evolve. In particular, the specific actions or tasks it needs to perform to carry out this responsibility have not been defined in detail.

Second, DOD has taken steps to establish and implement a configuration management process to ensure that all changes to the architecture products are justified and are accounted for in a manner that maintains documentation integrity. Specifically, the department has established a configuration control board (CCB), developed a charter, and written procedures governing this process. However, the CCB has been tasked with reviewing changes to only some, but not all, of the architecture products. For example, the CCB is not responsible for tracking changes that are being made to the transition plan. In addition, both the charter and the procedures governing this process are still in draft. According to DOD officials, the

²⁴GAO-03-584G.

charter is to be approved in June 2004, but no time frame has been provided for final approval of the procedures.

Third, DOD has recently issued an IT portfolio management policy governing the development, maintenance, and implementation of the architecture. This policy addresses, among other things, the roles, responsibilities, and relationships of key players and program participants, the value of an architecture, and the scope of the architecture. However, the policy does not address accountability for and approval of updates to the architecture, as called for by best practices, nor does it address the issuance of waivers in those instances when exceptions to the architecture are justified on the basis of documented analysis.

Finally, DOD has developed high-level performance measures that are to be used to develop the more specific results-oriented performance metrics needed to enable it to evaluate program progress and benefits. This means that DOD has yet to establish measurable, results-oriented goals to evaluate and track, on an ongoing basis, specific program progress, outcomes, and results. For example, it has not explicitly defined performance measures to evaluate the quality, content, and utility of subsequent major updates to its initial architecture. Given that DOD has reported obligations of over \$203 million since architecture development efforts began 3 years ago, this is a serious performance management weakness. It is critical that the department establishes meaningful, tangible, and measurable program goals and objectives—short-term and long-term—to enable the department to determine what value it is receiving for its investment.

In addition, the department has yet to address other prior recommendations related to architecture management best practices. Two examples are provided below.

- DOD has not assigned accountability and responsibility for directing, overseeing, and approving the architecture to a committee or group comprised of representatives from across the department. Although it previously established an executive and a steering committee, these committees are advisory in nature, and they are currently not accountable or responsible for directing, overseeing, and approving the architecture. According to the department, it expects to revise the committees' charters in June 2004 to include these responsibilities.
- DOD does not have an independent verification and validation function to review the architecture products and management processes. The department's current verification and validation contractor is not independent²⁵ and is responsible for reviewing the architecture products and only selected program deliverables. According to program officials, the department is planning to acquire the services of a new contractor to perform this work, who will be tasked with reviewing all

²⁵Best practices recommend that the verification and validation function be independent of the architecture program and report directly to the steering committee.

the architecture products and all other program deliverables. However, DOD officials also said that no decision has been made to change the reporting structure of this function to make it independent or to have this contractor review architecture management processes. In addition, no milestones have been set for any of these planned actions.

Several factors have contributed to the department's limited progress in implementing an effective architecture management program, such as changes to and a lack of accountability in program leadership, direction, and priorities. As we previously stated, DOD has not yet formalized responsibility for directing, overseeing, and approving the architecture. Further, from May 2003 to February 2004, there was no program manager to identify, direct, and execute program activities. DOD hired a new program manager in February 2004. Initially, DOD had planned to develop and implement its architecture in 1 year, but later it adopted an incremental approach to developing the architecture. About 1 year after adopting this approach, DOD has assigned labels to these increments, but it has not yet defined the purpose of these increments and plans of action to implement them.

Further, our research of successful organizations and experience in reviewing other challenged enterprise architecture efforts show that senior management's understanding of and commitment to an enterprise architecture and overcoming cultural resistance to having and using one are critical success factors. Cultural resistance to change, military service parochialism, and stovepiped operations have all contributed significantly to the failure of previous attempts to implement broad-based management reforms at DOD. Until such barriers are addressed, and effective architecture management structures and processes are established, it is unlikely that DOD will be able to produce and maintain a complete and enforceable architecture or implement modernized systems in a way that minimizes overlap and duplication and maximizes integration and mission support.

DOD's Architecture Products Remain Incomplete, with Minimal Content Change

Since our last review, DOD has not made significant changes to the content of its architecture. The department has an updated version of the architecture (version 2.0), which is currently being reviewed, but it has not been approved. According to DOD, this version of the architecture differs from the initial architecture (version 1.0) in that it incorporates integrated "baseline reference business process models," which, according to DOD, constitute a high-level process framework consisting of processes that provide a business perspective on the department's operations (e.g., execute budget and performance plans) that cut across functions and organizations. DOD also stated that version 2.0 includes the previously excluded requirements (e.g., revenue requirements) for the Joint Financial Management Improvement Program (JFMIP)²⁶ and partially addresses 21 of the 62 missing architecture content elements

²⁶JFMIP requirements arise from various public laws, regulations, bulletins, circulars, federal accounting standards, and leading practices and are applicable governmentwide.

that we recommended be added. According to DOD, the domains are currently validating all of the requirements—including the JFMIP requirements—that are contained in the architecture and, as a result, requirements may be added or deleted.

Further, with regard to the 21 missing elements, documentation provided by DOD shows that it is either just beginning to initiate activities or was planning to develop plans to address these missing elements. This documentation also did not specify either how or when any of the 21 elements would be fully addressed. Instead, it showed that the department, to date, has made only cosmetic changes to the architecture, such as correcting typographical (i.e., misspelled words) and grammatical errors, as well as deleting unnecessary text from various architecture products. DOD has yet to incorporate the missing scope and detail that we previously identified. For example, the “To Be” environment does not provide sufficient descriptive content related to future business operations and supporting technology to permit effective acquisition and implementation of system solutions and the associated operational change.

Program officials also stated that version 2.0 addresses some of the recommendations made by its verification and validation contractor. However, DOD did not provide documentation showing that it had addressed any of these recommendations. For example, the verification and validation contractor had previously reported that the “As Is” information was insufficient to support realistic transition planning. In April 2004, this contractor further reported that, while there have been some improvements in both the overall completeness of definitions and the structure of the architecture products, version 2.0²⁷ retains most of the critical problems previously cited for version 1.0. Some examples are below.

- The utility of the architecture to stakeholders and the ability of the architecture to support acquisition and portfolio investment management decisions remain unclear.
- Supporting documentation that describes the analysis and rationale for architecture choices represented within many of the architecture products remains incomplete in many areas and, when available, is poorly linked or referenced.
- The “As Is” environment, including business processes and existing business application systems and supporting technology, is inadequate, making it difficult for DOD to perform a gap analysis to support development of a transition plan.
- The information assurance (security) representation remains spotty and difficult to find even at the enterprise level, and it has some unnecessary deviations from the department’s accepted practices.

²⁷The focus of this review was limited to the “As Is” and “To Be” architecture products, because the transition plan has not been updated.

In addition, the verification and validation contractor stated that the reference business process models included in version 2.0, which DOD cited as the major difference from version 1.0, lacked the underlying data and linkage to make it useful in reengineering existing processes. The contractor also stated that these models would likely need to be reworked based on the results of efforts that the domains currently have under way.

According to DOD and contractor officials responsible for updating the architecture products, the changes made to date have primarily affected architecture management processes and not the architecture's content; and this is the result of the change in the program's focus and priorities, as discussed above. However, these officials also stated that the Architecture Integration Teams (AIT), comprised of representatives from the domains, are currently focused on developing needed architectural content—primarily business processes, business rules, and regulations for increment one.

Until the architecture is sufficiently complete and includes the missing scope and detail, the department remains at risk for not achieving its intended business transformation goals and of not having an architecture that can be used to guide and constrain ongoing and planned business systems investments to prevent duplicative and noninteroperable systems.

DOD Has Yet To Explicitly Define Near-term and Long-term Plans for Guiding Its Transformation Activities

DOD has not yet developed either near-term or long-term plans for developing the architecture that explicitly identify and establish a baseline for the actions to be taken, milestones to be achieved, cost estimates to be met, and targeted outcomes to be achieved. As we previously stated, DOD has adopted an incremental approach to developing the architecture, including the transition plan, and plans to refine and extend the architecture in three increments. The increments, as defined by DOD, are:

- *Increment one.* To enable asset accountability, total force visibility, and an unqualified audit opinion of DOD's consolidated fiscal year 2007 financial statements.
- *Increment two.* To focus on reducing acquisition cycle time and streamlining the Planning, Programming, Budgeting, and Execution System process between fiscal years 2004 and 2009.
- *Increment three.* To focus on providing total asset visibility and total force management between fiscal years 2004 and 2010.

However, it is unclear what the increments individually or collectively mean, and what they will provide or allow DOD to achieve in the near-term and long-term, because DOD does not have detailed plans that include performance measures for

the quality, content, and utility of the architecture. Although the three increments were identified in November 2003, program officials do not expect to have a plan for increment one until the next version of the transition plan is completed in August 2004. According to program officials, the goals and scope for the second and third increments were only recently approved by the steering committee and, therefore, detailed plans of action and milestones for developing these plans do not yet exist.

Currently, DOD has three initiatives under way to support increment one. First, the program office is developing a plan of action for increment one and intends to complete the plan by August 2004. Second, the accounting and finance domain is conducting workshops to develop needed business rules and requirements for extending and evolving version 2.0 of the architecture. This domain also has two ongoing pilot initiatives to acquire and implement production accounting systems by the end of 2005 at an estimated cost of \$135 million, which are intended to provide JFMIP-compliant financial management systems to support the department's general and working capital fund activities. Last, DOD components are developing individual plans detailing their respective efforts for supporting increment one. However, there is no evidence that the program office is coordinating with the components and that the components are coordinating amongst themselves. According to a Defense Logistics Agency (DLA) official, there is currently no direct link between DLA's plan and modernization program activities. Because there are not yet detailed plans guiding the program's activities, it is unclear whether and how these activities support each other and whether they support the department's goal of achieving an unqualified audit opinion in 2007.

DOD recognizes that it needs to develop detailed plans and establish performance metrics to measure and track program progress in order to determine (1) what it wants to accomplish by a certain point in time, (2) what it has actually accomplished by that point in time, and (3) how much it has spent. Changes in the direction of the program and a lack of sustained leadership have hindered DOD's ability to do so. In its March 15, 2004 progress report, DOD reported that it plans to establish an initial approved program metrics baseline to evaluate the cost, schedule, and performance of the program and that, beginning with the fourth quarter of fiscal year 2004, it plans to begin formal tracking and reporting of specific program goals, objectives, and measures.

The lack of explicitly defined program plans also has made it difficult to define measurable tasks that are or will be assigned to DOD employees and the 289 program contractor employees who are involved in architecture development, domain support, and program support functions. In reviewing the contractor's work statements for architecture development, we found that many of the tasks lacked the specificity necessary to use them effectively to monitor the contractor's progress. For example, tasks included such broad statements as "maintain, extend, and integrate" the architecture. Since DOD is acquiring services on the basis of direct labor hours at specified fixed hourly rates and cost of materials, it is essential that the department use efficient methods and effective cost controls to measure the work

being performed.²⁸ It is also essential because the proposed work statement that DOD plans to approve, at an estimated cost of \$43 million, explicitly states that work is considered complete when the hours allotted have been expended, rather than defining completion as the contractor's delivery of products that meet predefined quality standards. According to DOD, to enable it to better monitor the contractor's progress, it plans to reduce future tasks to 15 staff-day increments (from 6 week increments) and to require the contractor to provide more frequent, informal products to program officials so they can monitor and track progress more rigorously.

Without an explicitly defined program baseline, detailed plans, and performance measures, it is difficult to validate or justify the \$122 million that DOD has requested for fiscal year 2005 and the \$494 million the department estimates it will need for fiscal years 2006 through 2009. In fact, DOD has been unable to show measurable progress and meaningful utility of the architecture products to DOD stakeholders for the \$203.4 million that had been obligated for this program as of March 2004.

DOD Has Taken Few Actions to Control Ongoing and Planned Investments in Business Systems

DOD continues to lack effective investment management oversight and control over its numerous investments in business systems. While the domains have been designated to oversee business systems investments, the actual funding continues to be spread among DOD's components, which continue to make their own parochial decisions regarding those investments, including obligations in excess of \$1 million for system improvements, without having received the scrutiny of DOD's Comptroller as required by the National Defense Authorization Act for Fiscal Year 2003.²⁹ Because DOD lacks a departmentwide focus and effective management oversight and control of its business systems investments, it continues to invest billions of dollars in systems that potentially will fail to deliver the integrated business systems outcomes

²⁸We also found that in issuing task orders to International Business Machines (IBM) pursuant to the General Services Administration contract, DOD did not execute a Determination and Finding to support its use of Time-and-Materials task orders, as required by Federal Acquisition Regulation 16.601, 48 C.F.R. § 16.601 (2003). This Determination and Finding requirement guides agencies in evaluating the cost and performance risks assumed by the government in awarding Time-and-Materials contracts compared to other types of contracts that may provide increased incentives for the contractor to control costs and efficiency.

²⁹ Subsection 1004(d) of the Bob Stump National Defense Authorization Act for Fiscal Year 2003, Pub. L. No. 107-314, 116 Stat. 2630, (Dec. 2, 2002), provides that any amount in excess of \$1 million may be obligated for Defense financial system improvements before approval of its enterprise architecture and a supporting transition plan only if the DOD Comptroller makes a determination that the improvement is necessary for (1) critical national security capability or critical safety and security requirements or (2) prevention of significant adverse effect on a project that is needed to achieve an essential capability. The act further provides that after the architecture and transition plan are approved, the DOD Comptroller must determine, before making obligations that exceed \$1 million for system improvements, that such improvements are consistent with the enterprise architecture and the transition plan.

that are needed to provide DOD management with timely and reliable financial information.

We previously recommended³⁰ that DOD establish investment review boards to better control its business systems investments (with each board comprised of representatives from across the department) and that the boards, consistent with recognized best practices, use a standard set of investment review and decision-making criteria to ensure compliance and consistency with the architecture. DOD agreed with our recommendations and, in response, it issued in March 2004 an IT portfolio management policy that assigns the domains responsibility for IT portfolio management. However, the procedures to be followed to implement the policy are still under development and no time frames for completion have been provided. According to the IT portfolio management policy, the department has 180 days (until mid-September 2004) to develop these procedures. In addition, the department has yet to formalize specific roles and responsibilities of the domains, develop standard criteria for performing the system reviews, and assign explicit authority for fulfilling roles and responsibilities. DOD recognizes the need to clarify the roles and responsibilities associated with managing the domains' portfolios of business systems and ensure compliance with the architecture. However, it has yet to establish time frames for completing these activities.

DOD has not yet implemented an effective investment management structure and processes for controlling ongoing and planned business systems investments, including one that meets the act's requirements for ensuring that system improvements with obligations in excess of \$1 million are consistent with the architecture. In an attempt to substantiate that the obligations for business systems modernization were in accordance with the National Defense Authorization Act for Fiscal Year 2003, we requested that DOD agencies provide us with a list of obligations greater than \$1 million for fiscal year 2003³¹ and fiscal year 2004, as of December 2003. To ascertain whether DOD's Comptroller had made the determination required by the act, we compared a list of systems approvals provided by the program office with the obligational data (by system) provided by the DOD activities. As we previously testified,³² we identified \$479 million in obligations for business systems modernization reported by the DOD military services that were not submitted to DOD's Comptroller for review. Subsequently, we requested information from the defense agencies and found \$384 million in reported obligations for business systems modernization that had not been submitted to DOD's Comptroller for review. Examples of DOD system improvements with obligations in excess of \$1 million that were not submitted include the following:

³⁰GAO-01-525 and GAO-03-458.

³¹We requested the obligational data for fiscal year 2003 for the period December 2, 2002, the date of enactment of the act, through September 2003.

³²GAO-04-626T.

- The Defense Finance and Accounting Service (DFAS) obligated about \$19 million in fiscal year 2003 for the DFAS Corporate Database/DFAS Corporate Warehouse. We previously reported³³ that DOD had yet to provide economic justification that its investment in this system would result in tangible improvements to DOD's financial management operations. As of April 2004, an economic analysis has yet to be approved but, according to DOD officials, about \$129 million had been spent on the program through January 2004.
- The Defense Information Systems Agency obligated about \$7 million in fiscal year 2003 and about \$2 million in fiscal year 2004 for the Wide Area Workflow.³⁴
- DFAS obligated about \$7 million in fiscal year 2003 for the Defense Standard Disbursing System before it was terminated in December 2003 after approximately 7 years of effort and a reported investment of about \$53 million. We previously reported³⁵ that continued investment in this system had not been justified, because an economic analysis had not been updated to reflect significant schedule delays. DFAS noted that this system was terminated because a valid business case for continuing the effort could not be made.
- DLA obligated about \$5 million in fiscal year 2003 and about \$2 million in fiscal year 2004 for the Defense Medical Logistics Standard Support Program.

These and other examples demonstrate that DOD does not have reasonable assurance that it is in compliance with the National Defense Authorization Act for Fiscal Year 2003, which provides that obligations in excess of \$1 million for system improvements may not be made unless DOD Comptroller makes a determination that the improvement is in accordance with the criteria specified in the act. The act places limitations on the legal authority of individual program and government contracting officials to obligate funds in support of the systems for which they are responsible, but DOD has yet to proactively manage its investments to avoid violations of the limitations and to review and approve investments in any meaningful way in order to comply with these statutory limitations.

DOD acknowledges that the department does not have a systematic means to identify and determine which system improvements should be submitted to DOD's Comptroller for review and, in essence, is dependent upon system owners coming forward to the domains and requesting approval. Also, as we have testified,³⁶ DOD components continue to receive direct funding for their business systems and continue to make their own parochial decisions regarding investments without the

³³U.S. General Accounting Office, *DOD Business Systems Modernization: Continued Investment in Key Accounting Systems Needs to be Justified*, GAO-03-465 (Washington, D.C.: Mar. 28, 2003).

³⁴Wide Area Workflow is a secure web-based system for electronic invoicing, receipt, and acceptance.

³⁵GAO-03-465.

³⁶GAO-04-626T.

scrutiny of DOD's Comptroller that is required by the act. The current funding process has contributed to the proliferation of duplicative, nonintegrated, and stovepiped business systems that are highly prone to error and are unable to provide DOD management with timely, reliable financial information. In March 2004,³⁷ we offered a suggestion for legislative action to address this issue, consistent with our open recommendations to DOD that funds for its business systems be appropriated directly to the domains in order to provide for accountability, transparency, and the ability to prevent the continued parochial approach to systems investments that exists today. The legislation we envisioned—for which we will make a legislative proposal in a related report to be issued soon—would define the scope of the domains and establish functional responsibility for managing the portfolio of business systems to the domains. The domains would establish business systems investment review boards with DOD-wide representation, including the military services and defense agencies.

Until DOD strengthens its process for selecting and controlling business systems investments and sufficiently develops a well-defined architecture that can be used to guide and constrain investment decisions, it will likely continue to spend billions of dollars on duplicative, nonintegrated, stovepiped systems that do not optimize mission performance and accountability and, therefore, do not support the department's transformation goals.

Conclusions

Having and effectively using a well-defined architecture is essential for guiding and constraining DOD's business transformation efforts and moving the department away from nonintegrated business systems development efforts. DOD's efforts to date to address our prior recommendations aimed at accomplishing this have not been sufficient. Specifically, despite 3 years of effort and over \$203 million in reported obligations, DOD's architecture remains insufficiently defined, and the way in which the department makes business systems investments decisions remains largely unchanged. As a result, billions of dollars continue to be at risk of being spent on more systems that are duplicative, are not interoperable, cost more to maintain than necessary, and do not optimize mission performance and accountability.

The future of DOD's architecture development and implementation activities is at risk; this in turn places the department's business transformation effort in jeopardy of failing as other efforts by the department have in the past. Therefore, it is imperative that DOD move swiftly to implement our 22 open recommendations, which are aimed at strengthening architecture management activities, adding missing content to architecture products, and implementing investment oversight and control measures.

³⁷U.S. General Accounting Office, *Department of Defense: Further Actions Needed to Establish and Implement a Framework for Successful Financial and Business Management Transformation*, GAO-04-551T (Washington, D.C.: Mar. 23, 2004) and GAO-04-626T.

Agency Comments and Our Evaluation

In commenting on a draft of this report (reprinted in enc. IV), DOD agreed with our assessment that its long-standing business systems problems have resulted in a lack of adequate transparency and appropriate accountability across all major business areas. It confirmed that development and use of an architecture is necessary to transforming its business operations and supporting systems. However, in response to our characterization that progress has been limited, DOD stated that, over the past 3 years, progress has been slower than either GAO or DOD would prefer but that it has been significant, despite appearances to the contrary. The willingness of DOD's leadership to tackle the department's decades-old problems with its business operations and supporting systems represents a major step forward. However, we continue to believe that our characterization of DOD's progress in developing a well-defined architecture and implementing effective management oversight and control over its business systems as limited is fair. Therefore, we are not making any changes to our report.

DOD stated that we did not adequately consider or incorporate in our report important completed and ongoing activities, plans, and documentation, and provided an extensive package of information. We disagree that we did not adequately consider or incorporate in our report important completed and ongoing activities, plans, and documentation. While our assessment focused primarily on the department's completed, ongoing, and planned activities that it reported to Congress on March 15, 2004, we also considered and incorporated various activities, plans, and documentation through April 27, 2004, which included the vast majority of the information in the package.

In addition, we acknowledged in this report most, if not all, of the actions DOD represents in their comments as having been completed such as issuing the IT portfolio management policy and establishing the DO/IT. We also recognized many of DOD's ongoing activities, such as the workshops being held by the accounting and finance domain and the department's establishment of the AIT, which are currently focused on developing needed architectural content for increment one. To gain an understanding of the specific AIT activities, which began in January 2004, we met with the domains during our review and discussed various collaborative efforts, such as their participation in validating business rules and requirements to support the development of end-to-end business processes. Regarding planned activities, we recognized DOD's intent to revise the executive and steering committees' charters to include responsibilities for directing, overseeing, and approving the architecture, and to develop the procedures for implementing the IT portfolio management policy. In its response, DOD stated that it plans to complete these actions in June and December 2004, respectively.

Because we received information about certain activities after we completed our fieldwork—or not at all—these activities are not included in our evaluation. For example, DOD stated that the department plans to release a management initiative during May 2004; establish an architecture and program management maturity plan

and supporting metrics to address the quality, content, and utility of the architecture; and establish a balanced scorecard and supporting metrics focused on the organization's internal management processes. While we inquired about the management initiative during our review, program officials stated that they were unable to provide us a copy because DOD does not allow the release of such draft documents outside the department. In addition, program officials did not provide a characterization of the focus or scope of the management initiative; therefore we were unable to include it in our report. We made inquiries about other initiatives during the course of our review, but were not advised of the maturity plan and balanced scorecard. However, it is important to note that carrying out activities does not necessarily guarantee results, and thus progress, unless these activities are based on an approved program plan that can be used to measure progress.

In addition, we disagree with DOD's other comments. Specifically, DOD stated that the Comptroller is accountable for approval of updates to the architecture as called for by best practices. As we previously reported³⁸ and reiterated in this report, best practices recommend that the accountability and responsibility for directing, overseeing, and approving the architecture be assigned to a committee or group comprised of representatives responsible for the core business areas across the department—not a single individual. The purpose of assigning the accountability and responsibility to such a committee is to obtain and ensure continued enterprisewide support of the architecture effort, thereby, increasing the department's chances for success.

In addition, DOD stated that its verification and validation function is independent because the contractor responsible for these activities currently reports to the Deputy Director, Program Support, who is not directly involved with developing the architecture. DOD also stated that to ensure this independence, reports prepared by this contractor are provided directly to GAO and the steering committee. We disagree that this function is sufficiently independent. According to best practices, the contractor performing this role should report the results of its work directly to the steering committee, as well as the program office. Since the Deputy Director, Program Support reports directly to the program management office and not the steering committee, the function is not independent. In addition, the verification and validation contractor agreed with us that its reports are not provided directly to GAO or the steering committee. The contractor also concurred with our statement that, in the one instance in which it briefed the steering committee, the program office modified the content of the presentation.

DOD disagreed with our prior position that funds for DOD business systems be appropriated directly to the domains. We are reaffirming that position as stated by the Comptroller General in his March 2004 testimony³⁹ before the Subcommittee on Readiness and Management Support, Senate Armed Services Committee. This matter

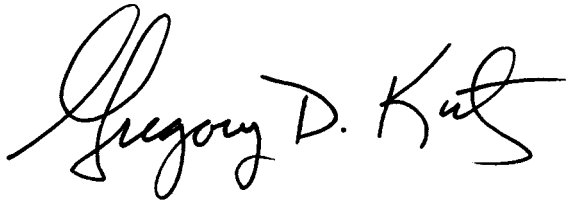
³⁸ GAO-03-458.

³⁹ GAO-04-551T.

for congressional consideration and related changes in responsibility will be discussed in additional detail in a report to be issued shortly.

We are sending copies of this report to interested congressional committees; the Director, Office of Management and Budget; the Secretary of Defense; the Under Secretary of Defense (Comptroller); the Assistant Secretary of Defense (Networks and Information Integration)/DOD Chief Information Officer; the Under Secretary of Defense (Acquisition, Technology, and Logistics); the Under Secretary of Defense (Personnel and Readiness); and the Director, Defense Finance and Accounting Service. This report will also be available at no charge on our Web site at <http://www.gao.gov>.

If you have any questions concerning this information, please contact Gregory Kutz at (202) 512-9095 or kutzg@gao.gov or Randolph Hite at (202) 512-3439 or hiter@gao.gov. GAO contacts and key contributors to this report are listed in enclosure V.



Gregory D. Kutz
Director, Financial Management and Assurance



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

Enclosures

List of Committees

The Honorable John W. Warner
Chairman
The Honorable Carl Levin
Ranking Minority Member
Committee on Armed Services
United States Senate

The Honorable Ted Stevens
Chairman
The Honorable Daniel K. Inouye
Ranking Minority Member
Subcommittee on Defense
Committee on Appropriations
United States Senate

The Honorable Duncan Hunter
Chairman
The Honorable Ike Skelton
Ranking Minority Member
Committee on Armed Services
House of Representatives

The Honorable Jerry Lewis
Chairman
The Honorable John P. Murtha
Ranking Minority Member
Subcommittee on Defense
Committee on Appropriations
House of Representatives

**SEC. 1004. [of Public Law 107-314] DEVELOPMENT AND
IMPLEMENTATION OF FINANCIAL MANAGEMENT ENTERPRISE
ARCHITECTURE**

(a) REQUIREMENT FOR ENTERPRISE ARCHITECTURE AND FOR TRANSITION PLAN—

Not later than May 1, 2003, the Secretary of Defense shall develop—

- (1) a financial management enterprise architecture for all budgetary, accounting, finance, enterprise resource planning, and mixed information systems of the Department of Defense; and
- (2) a transition plan for implementing that financial management enterprise architecture.

(b) COMPOSITION OF ENTERPRISE ARCHITECTURE—

(1) The financial management enterprise architecture developed under subsection (a)(1) shall describe an information infrastructure that, at a minimum, would enable the Department of Defense to—

- (A) comply with all Federal accounting, financial management, and reporting requirements;
 - (B) routinely produce timely, accurate, and reliable financial information for management purposes;
 - (C) integrate budget, accounting, and program information and systems; and
 - (D) provide for the systematic measurement of performance, including the ability to produce timely, relevant, and reliable cost information.
- (2) That enterprise architecture shall also include policies, procedures, data standards, and system interface requirements that are to apply uniformly throughout the Department of Defense.

(c) COMPOSITION OF TRANSITION PLAN—The transition plan developed under subsection (a)(2) shall include the following:

- (1) The acquisition strategy for the enterprise architecture, including specific time-phased milestones, performance metrics, and financial and nonfinancial resource needs.
- (2) A listing of the mission critical or mission essential operational and developmental financial and nonfinancial management systems of the Department of Defense, as defined by the Under Secretary of Defense (Comptroller), consistent with budget justification documentation, together with—
 - (A) the costs to operate and maintain each of those systems during fiscal year 2002; and
 - (B) the estimated cost to operate and maintain each of those systems during fiscal year 2003.
- (3) A listing of the operational and developmental financial management systems of the Department of Defense as of the date of the enactment of this Act (known as 'legacy systems') that will not be part of the objective financial and nonfinancial management system, together with the schedule for terminating those legacy systems that provides for reducing the use of those legacy systems in phases.

(d) **CONDITIONS FOR OBLIGATION OF SIGNIFICANT AMOUNTS FOR FINANCIAL SYSTEM IMPROVEMENTS**—An amount in excess of \$1,000,000 may be obligated for a defense financial system improvement only if the Under Secretary of Defense (Comptroller) makes a determination regarding that improvement as follows:

(1) Before the date of an approval specified in paragraph (2), a determination that the defense financial system improvement is necessary for either of the following reasons:

(A) To achieve a critical national security capability or address a critical requirement in an area such as safety or security.

(B) To prevent a significant adverse effect (in terms of a technical matter, cost, or schedule) on a project that is needed to achieve an essential capability, taking into consideration in the determination the alternative solutions for preventing the adverse effect.

(2) On and after the date of any approval by the Secretary of Defense of a financial management enterprise architecture and a transition plan that satisfy the requirements of this section, a determination that the defense financial system improvement is consistent with both the enterprise architecture and the transition plan.

(e) **CONGRESSIONAL REPORTS**—Not later than March 15 of each year from 2004 through 2007, the Secretary of Defense shall submit to the congressional defense committees a report on the progress of the Department of Defense in implementing the enterprise architecture and transition plan required by this section. Each report shall include, at a minimum—

(1) a description of the actions taken during the preceding fiscal year to implement the enterprise architecture and transition plan (together with the estimated costs of such actions);

(2) an explanation of any action planned in the enterprise architecture and transition plan to be taken during the preceding fiscal year that was not taken during that fiscal year;

(3) a description of the actions taken and planned to be taken during the current fiscal year to implement the enterprise architecture and transition plan (together with the estimated costs of such actions); and

(4) a description of the actions taken and planned to be taken during the next fiscal year to implement the enterprise architecture and transition plan (together with the estimated costs of such actions).

(f) **COMPTROLLER GENERAL REVIEW**—Not later than 60 days after the approval of an enterprise architecture and transition plan in accordance with the requirements of subsection (a), and not later than 60 days after the submission of an annual report required by subsection (e), the Comptroller General shall submit to the congressional defense committees an assessment of the extent to which the actions taken by the Department comply with the requirements of this section.

(g) **DEFINITIONS**—In this section:

(1) The term ‘defense financial system improvement’ means the acquisition of a new budgetary, accounting, finance, enterprise resource planning, or mixed information system for the Department of Defense or a modification of an existing budgetary, accounting, finance, enterprise resource planning, or mixed information system of

the Department of Defense. Such term does not include routine maintenance and operation of any such system.

(2) The term ‘mixed information system’ means an information system that supports financial and non-financial functions of the Federal Government as defined in Office of Management and Budget Circular A-127 (Financial Management Systems).

(h) REPEAL—(1) Section 2222 of title 10, United States Code, is repealed. The table of sections at the beginning of chapter 131 of such title is amended by striking the item relating to such section.

(2) Section 185(d) of such title is amended by striking ‘has the meaning given that term in section 2222(c)(2) of this title’ and inserting ‘means an automated or manual system from which information is derived for a financial management system or an accounting system’.

Enclosure II

Scope and Methodology

Consistent with the act and as agreed with congressional defense committees' staffs, our review focused on (1) the actions the Department of Defense (DOD) has taken to address our previous recommendations regarding the development and implementation of the architecture and (2) the actions DOD is taking to ensure its ongoing and planned investments will be consistent with its evolving architecture.

To determine what actions DOD has taken to address our previous recommendations that relate to the development and implementation of the architecture, we met with DOD and contractor officials to obtain an update on the status of our prior recommendations. We used our *Enterprise Architecture Management Maturity Framework*,⁴⁰ which describes the stages of management maturity, to update the status of key elements of architecture management best practices that DOD had not adopted. To make this determination, we reviewed program documentation, such as program policies and procedures, communications plan, and charters for the governance bodies; and we compared them to the elements in the framework. We reviewed program documentation, such as requests documenting proposed and actual changes to the architecture and external⁴¹ requirements extracted from the updated architecture. We also reviewed contractor task orders to determine the work performed and planned by the prime contractor associated with extending and evolving the architecture.

To determine what actions DOD is taking to ensure its ongoing and planned business systems investments are consistent with its evolving architecture, we met with DOD officials to obtain an update on the status of our prior recommendations. We met with appropriate officials from the offices of the Under Secretary of Defense (Comptroller) and the Assistant Secretary of Defense (Networks and Information Integration)/DOD Chief Information Officer, and with representatives from the domains to discuss the status of various draft policies and guidance that are aimed at improving the department's control of and accountability for business systems investments. We also reviewed and analyzed DOD's budget request for fiscal year 2004 to identify the business systems investments that could be subject to the requirements of the National Defense Authorization Act for Fiscal Year 2003, which requires that all financial system improvements with obligations in excess of \$1 million be reviewed by DOD's Comptroller, who must make a determination on whether the system improvements are in accordance with criteria specified in the act. To assess DOD's compliance with the act, we also obtained and reviewed departmental guidance, memorandums, DOD Comptroller review decisions, and

⁴⁰U.S. General Accounting Office, *Information Technology: A Framework for Assessing and Improving Enterprise Architecture Management (Version 1.1)*, GAO-03-584G (Washington, D.C.: April 2003).

⁴¹External requirements are those that are obtained from authoritative sources, such as the Joint Financial Management Improvement Program, and constrain various aspects of the architecture.

other documentation provided by the program office. Additionally, we requested that DOD provide us with data on obligations in excess of \$1 million for business systems modernization for fiscal years 2003 and 2004, as of December 2003. We also received obligational data from some of the defense agencies. We then compared the obligational data with the information we had received from the program office to ascertain if the systems modernization had been reviewed.

To augment our document reviews and analyses, we interviewed officials from various DOD organizations and contractors, including the Office of the Under Secretary of Defense (Comptroller); Office of the Under Secretary of Defense (Acquisition, Technology, and Logistics); Office of the Under Secretary of Defense (Personnel and Readiness); International Business Machines; and MITRE Corporation.

We did not validate the accuracy and reliability of the funding information contained in DOD's March 15, 2004, report. Also, the unliquidated and unobligated calculations that we made were based on DOD reported data. Further, we did not validate the accuracy and reliability of the obligational data provided by the military services and the defense agencies for systems modernization.

We requested comments on a draft of this report from the Secretary of Defense or his designee. We received written comments from the Acting Under Secretary of Defense (Comptroller), which we printed in enclosure IV. We considered, but did not reprint the voluminous attachments that DOD provided with its written comments.

We conducted our work primarily at DOD headquarters offices in Washington, D.C., and Arlington, Virginia, from December 2003 through April 2004, in accordance with U.S. generally accepted government auditing standards.

Enclosure III

Status of Prior Recommendations on DOD’s Business Enterprise Architecture (BEA)

Recommendation	Status of recommendation			DOD’s comments and our assessment
	Implemented	Partially implemented	Not implemented	
GAO-01-525: <i>Information Technology: Architecture Needed to Guide Modernization of DOD’s Financial Operations</i> . May 17, 2001.				
(1) The Secretary of Defense immediately designate DOD financial management modernization a departmental priority and accordingly direct the Deputy Secretary of Defense to lead an integrated program across the department for modernizing and optimizing financial management operations and systems.	X			
(2) The Secretary immediately issue a DOD policy that directs the development, implementation, and maintenance of a financial management enterprise architecture.		X		DOD recently issued its Information Technology (IT) Portfolio Management policy. This policy, in conjunction with the overarching Global Information Grid ^a policy, assigns responsibilities for the development, implementation, and maintenance of the BEA. ^b However, it does not provide for having accountability for and approval of updates to the BEA, processes for BEA oversight and control, and review and validation of the BEA.
(3) The Secretary immediately modify the Senior Financial Management Oversight Council’s charter to <ul style="list-style-type: none"> designate the Deputy Secretary of Defense as the Council Chair and the Under Secretary of Defense (Comptroller) as 		X		The department had previously established the executive and steering committees, which we reported were advisory in nature. The department recently established the Domain Owners Integration Team ^c and stated that these three bodies are responsible for governing the program. However, these three groups have not been assigned the

Recommendation	Status of recommendation			DOD's comments and our assessment
	Implemented	Partially implemented	Not implemented	
<p>the Council vice-Chair;</p> <ul style="list-style-type: none"> empower the Council to serve as DOD's financial management enterprise architecture steering committee, giving it the responsibility and authority to ensure that a DOD financial management enterprise architecture is developed and maintained in accordance with the DOD C4ISR Architecture Framework; empower the Council to serve as DOD's financial management investment review board, giving it the responsibility and authority to (1) select and control all DOD financial management investments and (2) ensure that its investment decisions treat compliance with the financial management enterprise architecture as an explicit condition for investment approval that can be waived only if justified by a compelling written analysis; and expand the role of the Council's System Compliance 				<p>accountability and responsibility for directing, overseeing, and approving the BEA. According to DOD, it expects to revise and finalize the executive and steering committees' charters to include these responsibilities in June 2004.</p> <p>DOD issued an IT portfolio management policy (March 2004) that assigns the domains^d responsibility for IT portfolio management. However, the procedures to be followed to implement the policy are still under development and no time frames for completion have been provided. According to the IT portfolio management policy, the department has 180 days (until mid-September 2004) to develop these procedures. In addition, the department has yet to formalize specific roles and responsibilities of the domains, develop standard criteria for performing the system reviews, and assign explicit authority for fulfilling roles and responsibilities. DOD has yet to establish time frames for completing these activities.</p>

Recommendation	Status of recommendation			DOD's comments and our assessment
	Implemented	Partially implemented	Not implemented	
Working Group to include supporting the Council in determining the compliance of each system investment with the enterprise architecture at key decision points in the system's development or acquisition life cycle.				
<p>(4) The Secretary immediately make the Assistant Secretary of Defense (Command, Control, Communications & Intelligence), in collaboration with the Under Secretary of Defense (Comptroller), accountable to the Senior Financial Management Oversight Council for developing and maintaining a DOD financial management enterprise architecture.</p> <p>In fulfilling this responsibility, the Assistant Secretary appoint a Chief Architect for DOD financial management modernization and establish and adequately staff and fund an enterprise architecture program office that is responsible for developing and maintaining a DOD-wide financial management enterprise architecture in a manner that is consistent with the framework defined in the CIO Council's</p>		X		<p>The Assistant Secretary of Defense (Networks and Information Integration)/DOD Chief Information Officer is a member of the executive and steering committees; however, as discussed previously, members' roles and responsibilities are advisory in nature.</p> <p>DOD established a Financial Management Modernization Program Office in July 2001. DOD has also appointed a chief architect and, according to the department, it has adequate program funding and staff for developing and maintaining its BEA. However, DOD has not yet defined the roles and responsibilities for the Chief Architect.</p>

Recommendation	Status of recommendation			DOD's comments and our assessment
	Implemented	Partially implemented	Not implemented	
<p>published guide for managing enterprise architectures. In particular, the Assistant Secretary should take appropriate steps to ensure that the Chief Architect</p> <ul style="list-style-type: none"> • obtains executive buy-in and support; • establishes architecture management structure and controls; • defines the architecture process and approach; • develops the baseline architecture, the target architecture, and the sequencing plan; • facilitates the use of the architecture to guide financial management modernization projects and investments; and • maintains the architecture. 				
<p>(5) The Assistant Secretary of Defense (Command, Control, Communications & Intelligence) reports at least quarterly to the Senior Financial Management Oversight Council on the Chief Architect's progress in developing a financial management enterprise architecture, including the Chief Architect's adherence to enterprise architecture policy and guidance from OMB, the CIO Council, and DOD.</p>		X		<p>The Assistant Secretary of Defense (Networks and Information Integration)/DOD Chief Information Officer is a member of the steering committee, which is briefed monthly by the program office on various program activities; but not necessarily on the development and maintenance of the BEA's content. The Chief Architect is a member of the program office.</p>
<p>(6) The Senior Financial</p>		X		<p>The Deputy Chief Financial</p>

Recommendation	Status of recommendation			DOD's comments and our assessment
	Implemented	Partially implemented	Not implemented	
Management Oversight Council report to the Secretary of Defense every 6 months on progress in developing and implementing a financial management enterprise architecture.				Officer briefed the Secretary of Defense in November 2003 on behalf of DOD's Comptroller, who chairs the executive committee.
(7) The Secretary reports every 6 months to the congressional defense authorizing and appropriating committees on progress in developing and implementing a financial management enterprise architecture.		X		Senate Report 107-213 directs that the department report every 6 months on the status of the BEA effort. DOD submitted status reports on January 31 and July 31, 2003 and on January 31, 2004. However, these reports were submitted by DOD's Comptroller and were not signed by the members of the executive or steering committees.
(8) Until a financial management enterprise architecture is developed and the Council is positioned to serve as DOD's financial management investment review board as recommended above, the Secretary of Defense limit DOD components' financial management investments to <ul style="list-style-type: none"> • deployment of systems that have already been fully tested and involve no additional development or acquisition cost; • stay-in-business maintenance needed to keep existing systems operational; • management controls needed to effectively invest in modernized systems; and • new systems or existing system 			X	DOD has not yet defined and implemented an approach for selecting and controlling business systems investments. In March 2004, the Deputy Secretary of Defense signed the IT portfolio management policy and assigned responsibility to the domains for IT portfolio management. However, the procedures to be followed to implement the policy are still under development and no time frames for completion have been provided. According to the IT portfolio management policy, the department has 180 days (until mid-September 2004) to develop these procedures. In addition, the department has yet to formalize specific roles and responsibilities of the domains, develop standard criteria for performing the system reviews, and assign explicit authority for fulfilling roles and responsibilities. DOD has yet to establish time frames for completing these activities.

Recommendation	Status of recommendation			DOD's comments and our assessment
	Implemented	Partially implemented	Not implemented	
changes that are congressionally directed or are relatively small, cost effective, and low risk and can be delivered in a relatively short time frame.				
GAO-03-458: <i>DOD Business Systems Modernization: Improvements to Enterprise Architecture Development and Implementation Efforts Needed</i> . February 28, 2003.				
(1) The Secretary of Defense ensure that the enterprise architecture executive committee members are singularly and collectively made explicitly accountable to the Secretary for the delivery of the enterprise architecture, including approval of each version of the architecture.			X	The department had previously established the executive and steering committees, which we reported were advisory in nature. The department recently established the Domain Owners Integration Team and stated that these three bodies are responsible for governing the program. However, these groups have not been assigned the accountability and responsibility for directing, overseeing, and approving the BEA. According to DOD, it expects to revise and finalize the executive and steering committees' charters to include these responsibilities in June 2004.
(2) The Secretary of Defense ensure that the enterprise architecture program is supported by a proactive marketing and communication program.		X		DOD has a strategic communications plan; however, the plan has not yet been executed. According to DOD, the plan is scheduled to be executed between June and December 2004.
(3) The Secretary of Defense ensure that the quality assurance function <ul style="list-style-type: none"> • includes the review of adherence to process standards and reliability of reported program performance, • is made independent of the program management 		X		According to DOD, the quality assurance function does not yet address process standards and program performance, nor is it yet an independent function. Further, DOD subject matter experts continue to be involved in the quality assurance function.

Recommendation	Status of recommendation			DOD's comments and our assessment
	Implemented	Partially implemented	Not implemented	
<p>function, and</p> <ul style="list-style-type: none"> is not performed by subject matter experts involved in the development of key architecture products. 				
<p>(4) The Secretary gain control over ongoing IT investments by establishing a hierarchy of investment review boards, each responsible and accountable for selecting and controlling investments that meet defined threshold criteria, and each composed of the appropriate level of executive representatives, depending on the threshold criteria, from across the department.</p>			X	<p>DOD has not yet defined and implemented an approach for selecting and controlling business systems investments. In March 2004, the Deputy Secretary of Defense signed the IT portfolio management policy and assigned responsibility to the domains for IT portfolio management. However, the procedures to be followed to implement the policy are still under development and no time frames for completion have been provided. According to the IT portfolio management policy, the department has 180 days (until mid-September 2004) to develop these procedures. In addition, the department has yet to formalize specific roles and responsibilities of the domains, develop standard criteria for performing the system reviews, and assign explicit authority for fulfilling roles and responsibilities. DOD has yet to establish time frames for completing these activities.</p>
<p>(5) The Secretary gain control over ongoing IT investments by establishing a standard set of criteria to include (a) alignment and consistency with the DOD enterprise architecture and (b) our open recommendations governing limitations in business systems investments pending development of the</p>			X	<p>DOD has not developed standard criteria for evaluating business systems investments and has not established time frames for completing this activity.</p>

Recommendation	Status of recommendation			DOD's comments and our assessment
	Implemented	Partially implemented	Not implemented	
architecture.				
(6) The Secretary gain control over ongoing IT investments by directing these boards to immediately apply these criteria in completing reviews of all ongoing IT investments, and to not fund investments that do not meet these criteria unless they are otherwise justified by explicit criteria waivers.			X	In March 2004, the Deputy Secretary of Defense signed the IT portfolio management policy and assigned responsibility to the domains for IT portfolio management. However, the procedures to be followed to implement the policy are still under development and no time frames for completion have been provided. According to the IT portfolio management policy, the department has 180 days (until mid-September 2004) to develop these procedures. In addition, the department has yet to formalize specific roles and responsibilities of the domains, develop standard criteria for performing the system reviews, and assign explicit authority for fulfilling roles and responsibilities. DOD has yet to establish time frames for completing these activities. Further, the policy also does not address the issuance of waivers in those instances when exceptions to the BEA are justified on the basis of documented analysis.
GAO-03-1018: <i>DOD Business Systems Modernization: Important Progress Made to Develop Business Enterprise Architecture, but Much Work Remains.</i> September 19, 2003.				
(1) The Secretary of Defense or his appropriate designee define and implement an effective investment management process to proactively identify, control, and obtain DOD Comptroller review and approval of expenditures for new and ongoing business systems investments exceeding \$1 million while the architecture is being developed and after it is			X	As discussed in this report, DOD has not yet defined and implemented an effective investment management process to proactively identify and control system improvements exceeding \$1 million in obligations. DOD officials have acknowledged that the department does not have a systematic means to identify and determine which system improvements should be submitted to the Comptroller for review and, are dependent upon system owners coming forward to the

Recommendation	Status of recommendation			DOD's comments and our assessment
	Implemented	Partially implemented	Not implemented	
completed, and which includes clearly defined domain owners' roles and responsibilities for selecting and controlling ongoing and planned system investments.				domains and requesting approval.
(2) The Secretary of Defense or his appropriate designee implement the core elements in our <i>Enterprise Architecture Framework for Assessing and Improving Enterprise Architecture Management</i> that we identify in this report as not satisfied, including ensuring that minutes of the meetings of the executive body charged with directing, overseeing, and approving the architecture are prepared and maintained.		X		<p>DOD has taken some actions, but these actions are not sufficient to fully address our previous concerns. For example, DOD has</p> <ul style="list-style-type: none"> • established the Domain Owners Integration Team; • begun to establish a configuration management process; • recently issued an IT portfolio management policy governing the development, maintenance, and implementation of the BEA; and • developed high-level performance measures that are to be used to develop the more specific results-oriented performance metrics that are needed to enable it to evaluate program progress and benefits. <p>However, as discussed previously, accountability and responsibility have not been assigned to a committee or group comprised of representatives from across the DOD component organizations—which would be responsible for directing, overseeing, and approving the BEA. DOD plans to update the executive and steering committees' charters to include these responsibilities in June 2004. Also, the configuration control board has been tasked with reviewing changes to only some, not all BEA products (e.g., the board is not responsible for tracking</p>

Recommendation	Status of recommendation			DOD's comments and our assessment
	Implemented	Partially implemented	Not implemented	
				changes that are being made to the transition plan as part of the BEA effort). In addition, both the charter and the procedures governing the configuration management process are still in draft. According to DOD, the charter is to be approved in June 2004, but no time frame has been provided for final approval of the procedures. The portfolio management policy does not address accountability for and approval of updates to the BEA—as called for by best practices. In addition, the policy does not address the issuance of waivers in those instances when exceptions to the BEA are justified on the basis of documented analysis. The department's current verification and validation contractor is not independent and is responsible for reviewing the BEA products and only selected program deliverables.
(3) The Secretary of Defense or his appropriate designee update version 1.0 of the architecture to include the 340 Joint Financial Management Improvement Program requirements that our report identified as omitted or not fully addressed.	X			
(4) The Secretary of Defense or his appropriate designee update version 1.0 of the architecture to include the 29 key elements governing the "As Is" architectural content that our report identified as not being fully satisfied.			X	Of the 29 elements, DOD stated that it plans to address 26, but it did not have detailed plans on how and when they would be fully addressed. According to DOD, it is currently addressing 2 of the 26—system and process inventories—which will be part of the transition plan. With respect to the system inventory, DOD's Comptroller recently testified

Recommendation	Status of recommendation			DOD's comments and our assessment
	Implemented	Partially implemented	Not implemented	
				that the actual number of DOD systems could be twice as many as is currently reported; 2,274. For the 3 elements that DOD did not consider to be relevant to the program, it did not provide any explicit analysis as to why the 3 would be irrelevant. Until DOD provides such an analysis, we consider all 29 elements to be critical for the "As Is" architectural content.
(5) The Secretary of Defense or his appropriate designee update version 1.0 of the business enterprise architecture to include the 30 key elements governing the "To Be" architectural content that our report identified as not being fully satisfied.			X	According to DOD, it has partially addressed 21 elements, but it plans to address all 30. However, DOD did not provide any detailed plans showing how and when it would fully address these elements. In addition, the information provided for the 21 elements shows that it had not addressed them but was planning to address them or had just begun to take needed actions.
(6) The Secretary of Defense or his appropriate designee update version 1.0 to ensure that "To Be" architecture artifacts are internally consistent, to include addressing the inconsistencies described in this report, as well as including user instructions or guidance for easier architecture navigation and use.			X	DOD did not have information readily available to show that it had addressed inconsistencies identified in our report.
(7) The Secretary of Defense or his appropriate designee update version 1.0 of the architecture to include (a) the 3 key elements governing the transition plan content that our report identified as not being fully satisfied and (b)			X	According to DOD, the next transition plan will be available in August 2004. However, DOD did not have information readily available to show how or when it would fully address our recommendations.

Recommendation	Status of recommendation			DOD's comments and our assessment
	Implemented	Partially implemented	Not implemented	
those system investments that will not become part of the "To Be" architecture, including time frames for phasing out those systems.				
(8) The Secretary of Defense or his appropriate designee update version 1.0 of the architecture to address comments made by the verification and validation contractor.			X	According to DOD, it has addressed some of its verification and validation contractor's comments and plans to address the majority of the others. However, DOD did not have documentation readily available to show that it had addressed some of the contractor's comments, and was unable to provide plans detailing how and when it would fully address the remaining comments. According to DOD, the verification and validation contractor's comments would be addressed in BEA updates after version 2.0.
(9) The Secretary of Defense or his appropriate designee develop a well-defined near-term plan for extending and evolving the architecture and ensure that this plan includes addressing our recommendations, defining roles and responsibilities of all stakeholders involved in extending and evolving the architecture, explaining dependencies among planned activities, and defining measures of activity progress.			X	As discussed in this report, DOD has not developed well-defined near-term or long-term plans to be used to guide day-to-day program activities to enable it to evaluate its progress.
(10) The Secretary of Defense or his appropriate designee limit the pilot projects to small, low-cost, low-risk prototype investments that are			X	The accounting and finance domain has two ongoing pilot initiatives to acquire and implement production accounting systems by the end of 2005—at an estimated cost of \$135 million. This domain is

Recommendation	Status of recommendation			DOD's comments and our assessment
	Implemented	Partially implemented	Not implemented	
intended to provide knowledge needed to extend and evolve the architecture, and are not to acquire and implement production version system solutions or to deploy an operational system capability.				also currently conducting workshops to develop needed business rules and requirements for extending and evolving the BEA in support of DOD's achieving objective of increment one, which includes achieving an unqualified audit opinion on DOD's fiscal year 2007 consolidated financial statements. However, the department did not provide detailed plans that showed how or if the workshop results would serve as the basis for acquiring these production systems.

Source: GAO analysis of DOD data.

^a DOD defines the Global Information Grid as the globally interconnected, end-to-end set of information, capabilities, associated processes, and personnel for collecting, processing, storing, disseminating, and managing information on demand to warfighters, policymakers, and support personnel.

^b In May 2003, the DOD Comptroller changed the architecture name from the Financial Management Enterprise Architecture to the Business Enterprise Architecture to reflect the transformation of departmentwide business operations and supporting systems, including accounting and finance, budget formulation, acquisition, inventory management, logistics, personnel, and property management systems.

^c In September 2003, DOD established the Domain Owners Integration Team, comprised of domain representatives, to facilitate communication and coordination across the domains.

^d DOD has six departmental domains, which are (1) accounting and finance, (2) acquisition, (3) human resources management, (4) installations and environment, (5) logistics, and (6) strategic planning and budgeting. It also has one enterprise information environment mission area. The domains and the mission area, comprised of the Under Secretaries of Defense and the Assistant Secretary of Defense for Networks and Information Integration/DOD Chief Information Officer, have authority, responsibility, and accountability within their domains for business transformation, implementation of the BEA, development and execution of the transition plan, portfolio management, and establishment of a structure to ensure representation of the DOD components and the appropriate federal agencies.

Enclosure IV

Comments from the Department of Defense



UNDER SECRETARY OF DEFENSE
1100 DEFENSE PENTAGON
WASHINGTON, DC 20301-1100



MAY 10 2004

COMPTROLLER

Mr. Gregory Kutz
Director
Financial Management and Assurance
United States General Accounting Office
Washington, DC 20548

Dear Mr. Kutz:

Enclosed is the proposed response by the Department of Defense (DoD) to the General Accounting Office (GAO) Draft Report, "DoD Business Systems Modernization: Limited Progress in Development of Business Enterprise Architecture and Oversight of Information Technology Investments," (GAO-04-731R), dated April 30, 2004.

The referenced draft General Accounting Office (GAO) report accurately describes the size and scope of the Business Management Modernization Program (BMMP). As stated in the opening paragraphs of the draft report, "DoD is one of the largest and most complex organizations in the world, overhauling its business operations and supporting systems represents a huge management challenge." Furthermore, the draft report pointedly describes the adverse effect of long-standing business system problems, which have resulted in "a lack of adequate transparency and appropriate accountability across all major business areas."

The DoD agrees with that assessment and concurs with the urgent need to undertake the largest ongoing transformation in the public sector. Since July 2001, we have been actively engaged in efforts to correct these long-standing problems. However, GAO's draft report characterizes DoD's progress so far as "limited." Though progress over the past 3 years admittedly has been slower than either GAO or DoD would prefer, it has been significant, despite appearances to the contrary. The report also underestimates development methodology of the Business Enterprise Architecture (BEA), as well as the significant growth in program maturity. The Department remains committed to working with GAO to address these issues.

My point of contact for this matter is Dr. Paul Tibbits, Director for Business Modernization and Systems Integration (BMSI). Dr. Tibbits may be contacted by email: Paul.Tibbits@osd.mil or by telephone at (703) 607-3370.

Sincerely,

Lawrence J. Lanzillotta
Acting

Enclosure:
As stated

**Department of Defense (DoD) Response to General Accounting Office (GAO) Draft Report,
“DoD Business Systems Modernization: Limited Progress in Development of Business
Enterprise Architecture and Oversight of Information Technology Investments”
(GAO-04-731R)**

DoD Response: The referenced draft General Accounting Office (GAO) report accurately describes the size and scope of the Business Management Modernization Program (BMMP). As stated in the opening paragraphs of the draft report, “...DoD is one of the largest and most complex organizations in the world, overhauling its business operations and supporting systems represents a huge management challenge.” Furthermore, the draft report pointedly describes the adverse effect of long-standing business system problems, which have resulted in “a lack of adequate transparency and appropriate accountability across all major business areas.” The Department of Defense (DoD) agrees with that assessment and concurs with the urgent need to undertake the largest ongoing transformation in the public sector. Since July, 2001, we have been actively engaged in efforts to correct these long-standing problems. However, GAO’s draft report characterizes DoD’s progress so far as “limited.” Though progress over the past 3 years admittedly has been slower than either GAO or DoD would prefer, it has been significant, despite appearances to the contrary. The report also underestimates development methodology of the Business Enterprise Architecture (BEA), as well as the significant growth in program maturity.

See comment 2.

GAO’s report states that DoD has little to show for its three-year effort and \$203 million investment. However, GAO’s assessment does not adequately consider or incorporate in their report important completed and ongoing activities, plans, and documentation. In addition to the scope and complexity of the BMMP, DoD must solve difficult, persistent, and tenacious culture, management and partnership barriers to defining and using the BEA to drive business transformation, conditions for which the GAO report seems to offer no allowances, although it certainly acknowledges them.

See comment 1.

The draft report asserts that GAO has not observed significant change since their last review, which seems improbable considering the level of effort expended during the past year. However, it is possible that GAO’s observations overlooked ongoing architecture development activity or governance deliberations and therefore did not recognize relevant improvements in their report. For example, the report should highlight the significance of the Information Technology (IT) Portfolio Management policy memorandum issued March 22, 2004. This document lays the foundation of the Department’s portfolio management strategy and will be supplemented by the IT Portfolio Management Instruction, currently under development, and other management initiatives.

See comment 1.

In 2003-2004, DoD Chief Financial Officer (CFO) and Chief Information Officer (CIO) collaborated on the DoD portfolio management policy. The BMMP and its associated governance also enabled development of a comprehensive directive to leverage the BEA and portfolio management for near term IT investment decisions.

The DoD IT budget request for FY05 totals \$29B. This budget includes business applications, warfighting systems, shared infrastructure, information assurance and related

technical activities. The business applications portion of the DoD IT budget totals \$5.03B in FY05, which includes BMMP systems and IT activities that support business functions of the Department. Warfighting systems account for \$7.8B, shared infrastructure accounts for \$12.8B, and Information Assurance and related technical activities account for \$3.1B. DoD Domains clearly have responsibility for developing and implementing business transition plans and portfolios that will assure that the \$4.8B annual business system expenditures cited in the referenced GAO report are focused on the established business transformation goals of the Department.

See comment 1.

DoD's proposed Management Initiative is a key document that lays out specific Domain responsibility and authority for DoD business transformation. It is expected to be released in May 2004. The GAO report does not recognize the magnitude of the BMMP governance accomplishments. For the first time in its history, DoD's business executives are taking an integrated view of the business environment and making collaborative decisions based on an enterprise view. In addition, a major accomplishment and strong indicator of DoD architecture management maturity is the series of completed and ongoing Domain-led workshops and the subsequent collaborative Domain-led Architecture Integration Team (AIT) sessions.

See comment 1.

The portfolio management policy (Attachment 1), draft portfolio management instruction and other related documents, provide clear direction and accountability for management and oversight of IT investment decisions. This accountability structure, organized along functional business owner lines, is the key mechanism for achieving DoD investment control frequently called for in GAO and other audit and management reports. These policy documents will provide the Department the visibility and information necessary to make informed investment decisions.

The Department's BEA, containing the baseline "blueprint" of the Department's vast, worldwide business activities (e.g., business policies and rules, business process controls, information flows, and business operational data collection and use), is one of the largest, most complex, and most pervasive business architectures developed to date, in either the public or private sectors. The DoD progress in the past three years exceeds any experience in the private sector and government.

There is no proven roadmap to guide our actions thus far. Despite the absence of a direct precedent or example to follow, DoD continues to take full advantage of guidelines, lessons learned and consultant expertise in addition to the guidance provided by GAO.

BEA Scope and Detail

The BEA 1.1 Release provided the baseline and also illustrated the need to approach architecture extensions in an incremental manner on creating additional detail. As such, DoD is deliberately delivering these extensions in increments, each scoped to take approximately a year to define in the BEA. DoD identified and approved the focus areas of the additional two increments (Two and Three) at the Domain Owner Integration Team (DO/IT) meeting on March 22, 2004 and the BMMP Steering Committee meeting on March 25, 2004 (Attachments 2 and 3). The scope of increment one had already been approved.

See comment 3.

- Increment One: Unqualified audit opinion (UAO), asset accountability and total force visibility.
- Increment Two: Acquisition best practices, total asset visibility, improved force management, improved military health care, and improved environmental safety and occupational health.
- Increment Three: Improved planning, programming, budgeting and execution, integrated total force management, and improved force management.

The scope for each increment includes the processes, information, requirements and business rules pertinent to accomplishing each of the major focus areas. For the BEA, the Executive Summary Concept of Operations (Attachment 4) defines the needed level of detail: “The BEA shall depict architecture products in sufficient detail to provide an unambiguous interpretation of cross-Domain business transactions”.

Plans to Extend and Evolve BEA

The BEA is an integrated plan for Departmental business transformation. It includes work products consisting of models, diagrams, tables, and narratives, all of which translate DoD's business activities into meaningful representations of business processes with comprehensive integration of relevant rules and regulations. These include the initial all views (AV), system views (SV), technical views (TV) and operational views (OV) of the business processes of the six key DoD business Domains. The Domains encompass the following business areas; Accounting and Finance, Acquisition, Human Resource Management, Installations and Environment, Logistics, and Strategic Planning and Budget. For the first time in the history of DoD, each Domain Owner is now serving as the single authoritative source of interpretation of rules and regulations for the Department in each of their respective areas of cognizance. In addition to the Business Domains, the Assistant Secretary of Defense (Networks and Information Integration)/Chief Information Officer – ASD(NII)/CIO – is the leader of the Enterprise Information Environment (EIE) Mission Area. This Mission Area is composed of equipment, software and common information capabilities or services for Enterprise use.

In the Fall of 2003, the BEA was extended to include the Reference Business Process Model (RBPM), which proposed a desired condition for the enterprise-level business processes for BEA 2.0. This Release was published in February 2004.

For Increment One, all Domains conducted preparatory workshops to define supporting business processes more fully. From October 2003 to January 2004, the Accounting and Finance Domain conducted 26 workshops (Attachment 5) to specifically analyze DoD business processes and associated financial management requirements. These formed the basis for extended analysis by the increment one Architecture Integration Team (AITs), which focus on the following process categories:

- Team #1: Apportionment
- Team #2: Receipts & Acceptance
- Team #3: Commitments & Obligations
- Team #4: Receivables, Payables & Disbursements

- Team #5: Asset Accountability
- Team #6: Purchase Card/Travel Card

See comment 1.

Each of the AITs is comprised of 8 to 21 team members consisting of Domain Action Officers (DAOs) serving as a Team Lead, domain Subject Matter Experts (SMEs) and Business Modernization Systems Integration (BMSI) staff supporting the teams with process modelers, data modelers, requirements analysts and accountants. Although they did not take advantage of the DoD offer, GAO was invited to participate in any and all the AIT sessions to witness the significance and depth of this collaborative work. The AITs are key to assuring cross domain integration, unambiguous interpretation of requirements across the Department, and coherent representation of end-to-end processes that will serve as the roadmap for subsequent IT investment and system configuration decisions.

See comment 4.

As described in the AIT methodology, DoD is developing the Enterprise Business Process Model (EBPM), and end-to-end descriptions of DoD business processes. This model will accurately identify financially relevant requirements and business rules necessary to resolve all known material weaknesses to support an Unqualified Audit Opinion and asset accountability. These rules and requirements, along with their associated data objects, are being linked to DoD business processes. The EBPM will update the RBPM previously published in BEA Release 2.0. The initial EBPM (in HTML) and updated Overview and Summary (AV-1) were released on April 30, 2004 (BEA 2.1) as scheduled and approved. This Release represents a significant improvement of the BEA and can be found on the BMMP Portal (portal navigation instructions are at Attachment 6).

The near term schedules for completing Release 2.2 are shown in Attachments 7 and 8. The EBPM defines the complete end-to-end process of doing business in the Department, from planning to disposal. The activity model developed for the baseline BEA will be aligned with the enterprise processes (EBPM) to ensure architectural completeness, and to facilitate its use. BEA Release 2.1 Overview and Summary (AV-1, Attachment 9) explains that the content of BEA Release 2.2, scheduled for July 2004, will support IT investment decisions for the FY06 Budget. Release 2.3 (October 2004) and 2.4 (January 2005) will augment BEA 2.2 for enhanced portfolio management acquisition decision support and business process re-engineering. Attachment 10 maps architecture products to business utility and will serve to prioritize and focus development of BEA products.

In BEA Release 2.2, DoD will concentrate on completeness and correctness of the requirements repository, business rules, the enterprise business process model, the conceptual data model, and system functions, entities and information exchanges related to Increment One. Release 2.3 will add the relevant realigned activity model, and updated organizational nodes, roles, information and activities.

In summary, since the publication of BEA Release 1.0 in May 2003, the Department has:

See comment 5.

- Completed an initial Transition Plan that identifies BMMP concept strategy and delineates steps for future business transformation.
- Established the enterprise-wide DoD Portfolio Management policy.

See comment 3.

- Established a DoD-wide BMMP Governance Structure, which defines program strategies, performs strategic decision-making, and provides oversight and control of portfolio management responsibilities with respect to IT business system investments.
- Established an incremental approach for extending the BEA into implementable parts that will drive transformed business operations into DoD. BMMP Increments One, Two, and Three have been approved by the BMMP Steering and Executive Committees.
- Established initial BMMP and BMSI program office performance metrics (i.e., goals, objectives, measures and targets), and is near completion of an integrated set of enterprise and domain business transformation metrics. DoD plans to begin data collection and reporting in the 4th Quarter of FY04.
- Established the initial inventory of business IT systems.
- Identified the template and program entries to instruct the implementation of a Standard General Ledger (SGL).
- Developed a schedule for completion of initial business process reengineering and modeling for integration with the next extension of the BEA.

Independent Verification and Validation Contractor

See comment 1.

GAO states that “DOD does not have an independent verification and validation function to review the architecture products and management processes. The department’s current verification and validation contractor is not independent and only reviews selected architecture products.” The current independent verification and validation (IV&V) contractor is a neutral third party, a Federally Funded Research and Development Center (FFRDC), free of organizational conflict of interest (OCI) issues. The contractor is not directly involved with the BEA or the Transition Plan development; hence they provide the requisite independence. Under the recently revised BMSI organization structure, the IV&V contractor is not within the BEA or Transition Planning chain of command. IV&V contractor activities are included in a separate directorate with Quality Assurance and Risk Management. To assure independence, reports of the IV&V contractor are provided directly to GAO and the Steering Committees. (The list of IV&V items reviewed since April 2003 and provided to GAO is included in Attachment 11)

See comment 6.

The IV&V contractor provides input to evaluation criteria for major deliverables and reviews the significant architecture-related documentation developed by the BMSI office. These include; architecture methodology, requirements management methodology, BEA Releases and other significant documents. The BMSI office is in the process of extending the IV&V support through a competitive acquisition process. The contract award is anticipated by June 2004.

GAO and Verification and Validation Contractor Comments

See comment 7.

Attachment 12 is the verification and validation contractor’s report on BEA Release 2.0 as submitted to DoD and GAO. It supports DoD statements that some of the contractor’s recommendations were addressed in Release 2.0. Specific comments are on pages 17, 18, 19, 21, 22, and 23. DoD expects Release 2.2 and 2.3 of the architecture to address the remaining IV&V comments. Attachment 13 is a matrix showing consolidated comments mapped to disposition.

See comment 8.

DoD is also addressing the 61 content elements identified by GAO. Attachment 14 shows the evaluation criteria for the detailed action plan for developing AS-IS BEA products. This action plan, scheduled for completion June 28, 2004, will provide the timeline to reconcile and address GAO content elements. Status for addressing the TO-BE architecture products is at Attachment 15. Attachment 16, BEA Information Assurance (IA) Guidance, illustrates DoD's plans to address IA and Security and Attachment 17 contains the BEA Configuration Management (CM) Plan as approved and implemented on January 28, 2004. To ensure that BEA considers and implements all of the GAO comments concerning the maturity of the architecture, DoD is using the GAO Framework for Enterprise Architecture Management Maturity to measure BMSI performance, as briefed to the BMMP Steering Committee.

DoD will measure BMSI performance relative to the quality of BEA content, and its alignment with the Federal Enterprise Architecture (FEA), using the Office of Management and Budget (OMB) Guidelines for Enterprise Architecture Assessment Framework. To ensure consistent mapping to FEA, DoD has developed a set of DoD enterprise reference models (see Attachment 18) that map to each of the FEA reference models.

BMMP Governance Structure

The Department has established a BMMP Governance structure that institutionalizes the participation of senior civilian and military leaders from the Department's key business areas. We have created, and are using, a hierarchy of governance committees to address and resolve business transformation issues in the most efficient manner, at the lowest level possible.

Through the Program's Executive Committee, the Secretary's senior political leadership provides strategic direction and guidance. The BMMP Executive Committee and Steering Committee are jointly chaired by the DoD CFO and DoD CIO, and include representatives from both the Office of the Secretary of Defense and the Military Services. The Domain Owners Integration Team (DO/IT) are responsible for business transformation by establishing and maintaining intra-Domain governance processes, managing domain-specific Information Technology (IT) investment portfolios, ensuring systems compliance with the BEA, and assisting in the extension of the enterprise architecture..

The Governance Structure, at the appropriate level, has actively engaged in developing the Department's enterprise level Portfolio Management policies, and now is developing the guidance to the DoD Components regarding the submission of IT exhibits for the FY06 budget. With the release of the Department's Management Initiative, expected in May 2004, greater detail regarding roles and responsibilities will be explicitly articulated and Domain Owners will be provided additional direction to manage DoD IT investments as portfolios. DoD's Management Initiative will establish specific time frames (30 days from signature date) for the issuance of initial Portfolio Management guidance, to include the criteria for performing reviews of proposed IT investments.

Architectural compliance is noted as one of the criteria for decisions on what investments to make, and to modify or terminate a system in the recently issued Information Technology

Portfolio Management policy memorandum. This policy memorandum states that the Under Secretary of Defense (Comptroller)(USD(C))/CFO is responsible for developing and maintaining the DoD BEA as a component of the overarching Global Information Grid (GIG) architecture. The USD(C) is therefore accountable for the approval of updates to the BEA, as called for by best practices.

See comment 1.

The issue of waivers is addressed in DoD Directive 8100.1, "Global Information Grid (GIG) Overarching Policy", dated September 19, 2002. This directive is referenced in the Information Technology Portfolio Management policy memorandum. DoD Directive 8100.1 states that the DoD Chief Information Officer is responsible for establishing GIG compliance and enforcement mechanisms to minimize duplication of IT. The BEA Conops (Attachment 4) clarifies that the BEA is a component of the GIG and, as such, the GIG waiver policy applies to the BEA as well.

Timeframes have been established for the development and implementation of a DoD directive and instruction on IT Portfolio Management. The IT Portfolio Management policy memorandum was signed by the Deputy Secretary of Defense, March 22, 2004. This policy memorandum will be issued as a directive within 180 days (mid-September 2004). An accompanying IT Portfolio Management Instruction is under development, and as stated earlier, will be issued 30 days from signature of the Management Initiative. Coordination of this instruction will begin in June 2004, with a scheduled completion date of December 2004. The Department is not waiting for the publication of these documents to begin the review process. The Steering Committee completed its first round of IT Portfolio Management reviews for all Domains in March 2004. Decisions from these and subsequent reviews this Summer and Fall will guide the FY06 budget preparation process.

See comment 9.

The Domains have a strong oversight responsibility for guiding investment in IT. However, the GAO has recommended that funds for DoD business systems be appropriated directly to the Domains in order to provide for accountability, transparency, and the ability to prevent "...a continued parochial approach to systems investments that exists today."

See comment 1.

The Department does not concur with this recommendation, and does not envision a governance structure in which Domain owners are assigned the management responsibility for the planning, design, acquisition, deployment, operation, maintenance, and modernization of individual DoD business systems. Similarly, DoD does not envision a governance or program management strategy in which funds are appropriated to Domain leaders rather than the military service and Defense agencies to operate, maintain, and modernize DoD business systems. The Department does not consider this recommendation to be advisable for several reasons.

See comment 1.

The GAO's recommendation appears to have been made without consideration of the Department's long standing recognition of the need for operational expertise and perspective in the development of business IT systems. The recommendation was made without regard for collaborative consultation before advancing a concept that is radically different from the portfolio management concepts being implemented in DoD today. Finally, funds management by the Domains would require creation of a completely new layer of bureaucracy to assure proper management of appropriated funds.

See comment 1.

Beginning with the FY06 DoD program budget development process, the Domains will be acting as an Investment Review Board, and will provide strong management oversight to the Department's business IT investment decisions. Therefore the Domains will oversee, coordinate and guide the business system investment decisions made by the DOD Components. IT investments will be based on Domain approval. The DoD demonstrated in last year's Program Review how the Logistics Domain realigned resources from lower priority efforts into programs that better support the BEA. In this case, the DoD moved \$121M within the Army, \$87M within the Navy, and the \$139M within the DLA – clearly a successful demonstration of portfolio management. We are expanding that effort by working with all the Domains to identify opportunities for similar realignments in the FY06 budget.

See comment 10.

DOD has the strongest requirements, acquisition and budgeting processes of any Federal Agency. Our efforts to govern BMMP within these existing processes, suggests that we will have an even more robust oversight process for controlling portfolio investments. All Major Automated Information Systems (MAIS) programs are subjected to the same acquisition oversight as Major Defense Acquisition Programs (MDAP), including adherence to Clinger-Cohen Act requirements. IT Capital Planning and Investment Control have been instituted in DoD through longstanding processes and executive-level forums. The Department uses the Planning, Programming, Budgeting, and Execution System and the Defense Acquisition System to select, manage, and evaluate IT investments. DoD uses these existing management processes in lieu of creating parallel processes to manage IT investments – ensuring the integration of IT investments into the total DoD investment portfolio in compliance with the BEA.

See comment 11.

Several decision-making forums govern the movement of proposed IT investments from one phase to the next, and ultimately determine whether programs will be approved for funding. These bodies include the Defense Resources Board, Defense Acquisition Board, IT Overarching Integration Product Teams (OIPT), the DoD CIO Executive Board, and the GIG Architecture Integration Panel. The roles of these bodies include ensuring proposed IT investments support core missions, allocating resources, overseeing and controlling IT investments, and overseeing the development and configuration management of integrated architectures.

Systems Review and Legislative Compliance

The Department acknowledges that a more proactive approach is required to ensure certification compliance with the legislative requirement of the FY03 National Defense Authorization Act. To that end, we are currently finalizing and issuing guidance that will significantly improve the process by clearly delineating roles and responsibilities, establishing time frames and making key system modifications to better align budgets with actual IT expenditures. The guidance directs the Business Domains to develop and submit business IT system certification compliance plans to the USD(C) within thirty days of issuance of Management Initiative. The plan must include a schedule to accomplish the reviews for all the systems comprising at least 80 percent of the total business system funding by August 23, 2004. To facilitate development of the plans the Department will use the Information Technology Application (ITMA) and system repositories of the Components, which serve as key components

See comment 12.

in developing the Department's IT budget requirements, as the primary source to identify Business IT systems needing USD(C) certification.

The completion of these reviews by Fall 2004 is required so that Domains will have the opportunity to review component budget submissions during the Program/Budget review cycle and make necessary funding adjustments to the FY06 budget.

Both the BEA and the Business IT investment governance structure depend significantly on the business system portfolio management process being established within the Department's key business Domains. Beginning with the FY06 budget development process, the Domains will provide strong management oversight to the Department's near-term business system investment decisions. Additionally, the Department has developed standard architecture criteria by which the business systems can be evaluated, to ensure they are being developed and managed in accordance with BMMP. These criteria will be enhanced as the BEA matures.

Metrics

The Department understands the importance of establishing meaningful, tangible, and measurable program goals and objectives to guide and measure the value of business transformation investments. The establishment of a comprehensive performance measurement process for the transformation of DoD business operations, the largest business operations in the world, takes substantial time, resources, and extensive cross-organizational coordination. BMMP has made substantial progress establishing metrics (i.e., goals, objectives, measures, and targets) to include business transformation metrics and BMSI Program Management Office management metrics.

As approved by the Steering Committee and the DO/IT, DoD is nearing completion of an initial integrated set of enterprise and domain business transformation metrics and plans to begin data collection and reporting in 4 Quarter FY04. BMMP expects the integrated set of metrics to encompass approximately 16 to 20 goals, 30 to 50 objectives, and 90 to 120 measures. These metrics reflect a major accomplishment because they provide the basis for demonstrating the alignment of business transformation investments with strategic outcomes.

Additionally, BMSI has established Architecture Integration Team (AIT) performance metrics that track the number of requirements dispositioned relative to the total number of requirements and the percent of process steps reviewed relative to the total number of process steps. BMSI tasking to contractors is quite clear, serving as the basis for use of rigorous Earned Value Management metrics for BEA development. BMSI is establishing an Architecture and Program Management Maturity Plan and supporting metrics to address the quality, content, and utility of the BEA. BMSI is establishing a balanced scorecard (BSC) and supporting metrics focused on the organization's internal management processes.

Contracting Issues

Under the General Services Administration (GSA) schedule through which the BEA Blanket Purchase Agreement (BPA) was awarded, only two types of contracts are permitted,

See comment 13.

See comment 13.

Time and Materials (T&M) and Firm Fixed Price (FFP). Due to the complexity and evolutionary nature of the BEA development effort, it is not prudent acquisition strategy to use a firm, fixed price vehicle. Maintaining, extending and integrating the architecture can be accomplished in a variety of ways using many different approaches, such as the use of AITs.

The Government and the prime contractor establish acceptance criteria prior to work beginning on each deliverable. The Government uses the established criteria to evaluate the deliverables, after providing a clear understanding of the work expectations. Government personnel monitor the progress on a daily basis.

In addition, the Government holds weekly reviews with the Contractor to monitor deliverables, performance (Earned Value Management System-EVMS). The attached work statement for Call 0009 (Attachment 19) includes additional EVMS requirements the Government is instituting to more closely monitor performance.

Pilot Initiatives

The Accounting and Finance Domain is serving as the program advocate and oversight entity, to assure compliance with the BEA, in accordance with the responsibilities assigned to the Domains, for two Component acquisitions of Joint Financial Management Improvement Program (JFMP)-compliant financial management systems (Defense Enterprise Accounting and Management System (DEAMS) and General Fund Enterprise Business System (GFEBS)) to support the Department's general and working capital fund activities. These initiatives are being funded by the individual Components, not the Accounting and Finance Domain.

See comment 14.

The following are GAO's comments on the Department of Defense's (DOD) letter dated May 10, 2004.

GAO Comments

1. See the "Agency Comments and Our Evaluation" section of this report.
2. We have reviewed multiple versions of the architecture development methodology, including the latest version, which is currently draft. Based on our review of the latest draft, we concluded that this methodology does not provide a documented approach for performing activities in a coherent, consistent, accountable, and repeatable manner. Key DOD stakeholders also expressed concerns about the methodology. For example, these stakeholders stated that it is an "after-the-fact" description of work products rather than a prescriptive document that details the approach to be followed to develop the architecture.
3. The descriptions of increments 2 and 3 in DOD's comment letter are different than the descriptions the program manager provided to us on April 27, 2004, as reflected in this report. Because of the inconsistencies in the responses, it remains unclear what the department's focus is for increments 2 and 3. DOD's response also stated that the executive committee approved all three increments; however, DOD did not provide evidence of this approval.
4. As stated in our report, DOD's objective for achieving an unqualified audit opinion is not supported by a DOD-wide plan of action nor are the individual component plans linked to program activities.
5. As stated in our report, DOD does not expect to complete the next version of its transition plan until August 2004. In addition, as we previously reported,⁴² its initial transition plan was basically a plan to develop a transition plan and did not possess the attributes needed to guide its transformation efforts.
6. Attachment 11 does not list the deliverables the verification and validation contractor has reviewed since April 2003.
7. The matrix does not show the anticipated disposition (e.g., date and architecture version) of the verification and validation contractor's comments.
8. This information was provided after fieldwork was completed.
9. These briefings were presentations given by each domain describing its approach for conducting portfolio management reviews. The steering

⁴² GAO-03-1018.

committee did not review actual systems investments nor was there detailed discussion about the domains' approaches.

10. The scope of our review did not include an evaluation of the realignment of funds made by the logistics domain to determine an effective demonstration of portfolio management.
11. DOD's characterization of its current process for oversight and control of modernization investments is inaccurate. We along with the DOD Inspector General continue to report on significant weaknesses in the department's requirements, acquisition, and budgeting processes for business systems modernization projects. For example, we reported⁴³ that estimated costs for the Defense Procurement Payment System had increased by \$274 million and the schedule had slipped by almost 4 years after having already invested 7 years and over \$126 million. DOD Comptroller's noted that the project was being terminated due to poor program performance and increased costs.
12. We look forward to receiving DOD's forthcoming guidance to contracting and program officials that describes the process by which these officials obtain DOD Comptroller's statutorily required determination before making obligations exceeding \$1 million for a financial system improvement. However, given the obligation data provided to us by DOD and included in our report, we are concerned that DOD plans no action to review previous obligations for system improvements to ensure that there have been no such violations since the enactment of the limitation.
13. We continue to believe that contractor tasks have not been clearly defined and that, because DOD is acquiring services on the basis of time and materials, it is essential that the department use efficient methods and effective cost controls to measure the work being performed. While we did not take issue with DOD on its use of a time and materials contract, we did state that DOD's failure to execute the required Determination and Finding to evaluate the cost and performance risks assumed by the government illustrates an overall lack of clear architecture development plans.
14. According to a program official, DOD did not begin requiring acceptance criteria prior to the contractor beginning work until August 2003. Further, DOD has paid the contractor under the time and materials contract even when the contractor did not meet all of the criteria for the deliverable. For example, based on reports provided by DOD, the department paid the contractor for delivery of version 2.0 of the architecture even though this version did not meet 50 percent of the acceptance criteria.

⁴³ GAO-03-465.

Enclosure V

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