



Highlights of GAO-06-831, a report to the Chairman, Committee on Government Reform, House of Representatives

ENTERPRISE ARCHITECTURE

Leadership Remains Key to Establishing and Leveraging Architectures for Organizational Transformation

Why GAO Did This Study

A well-defined enterprise architecture is an essential tool for leveraging information technology (IT) to transform business and mission operations. GAO's experience has shown that attempting to modernize and evolve IT environments without an architecture to guide and constrain investments results in operations and systems that are duplicative, not well integrated, costly to maintain, and ineffective in supporting mission goals. In light of the importance of enterprise architectures, GAO developed a five stage architecture management maturity framework that defines what needs to be done to effectively manage an architecture program. Under GAO's framework, a fully mature architecture program is one that satisfies all elements of all stages of the framework. As agreed, GAO's objective was to determine the status of major federal department and agency enterprise architecture efforts.

What GAO Recommends

To increase the maturity of federal enterprise architecture efforts, GAO is making a recommendation to each department and agency aimed at improving their respective architecture programs. In commenting on a draft of this report, all but one department fully agreed with its recommendation and all but six departments and agencies fully agreed with our findings about its program. Two departments did not comment.

www.gao.gov/cgi-bin/getrpt?GAO-06-831.

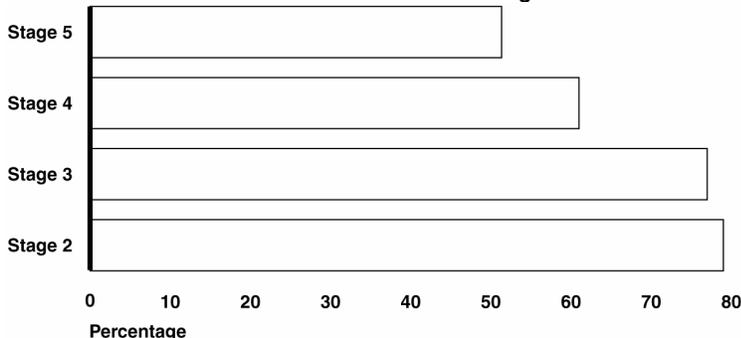
To view the full product, including the scope and methodology, click on the link above. For more information, contact Randolph C. Hite at (202) 512-3439 or hiter@gao.gov.

What GAO Found

The state of the enterprise architecture programs at the 27 major federal departments and agencies is mixed, with several having very immature programs, several having more mature programs, and most being somewhere in between. Collectively, the majority of these architecture efforts can be viewed as a work-in-progress with much remaining to be accomplished before the federal government as a whole fully realizes their transformational value. More specifically, seven architecture programs have advanced beyond the initial stage of the GAO framework, meaning that they have fully satisfied all core elements associated with the framework's second stage (establishing the management foundation for developing, using, and maintaining the architecture). Of these seven, three have also fully satisfied all the core elements associated with the third stage (developing the architecture). None have fully satisfied all of the core elements associated with the fourth (completing the architecture) and fifth (leveraging the architecture for organizational change) stages. Nevertheless, most have fully satisfied a number of the core elements across the stages higher than the stage in which they have met all core elements, with all 27 collectively satisfying about 80, 78, 61, and 52 percent of the stage two through five core elements, respectively (see figure). Further, most have partially satisfied additional elements across all the stages, and seven need to fully satisfy five or fewer elements to achieve the fifth stage.

The key to these departments and agencies building upon their current status, and ultimately realizing the benefits that they cited architectures providing, is sustained executive leadership, as virtually all the challenges that they reported can be addressed by such leadership. Examples of the challenges are organizational parochialism and cultural resistance, adequate resources (human capital and funding), and top management understanding; examples of benefits cited are better information sharing, consolidation, improved productivity, and reduced costs.

Percentage of Framework Elements Collectively Satisfied by All Departments and Agencies in Each Stage



Source: GAO analysis of department/agency data. Note: There are no framework elements in stage 1.