GAO Highlights

JOINT INFORMATION ENVIRONMENT

DOD Needs to Strengthen Governance and Management

Why GAO Did This Study

For fiscal year 2017, DOD plans to spend more than $38 billion on information technology to support thousands of networks and millions of computers and other electronic devices connected to its networks. In August 2010, the Secretary of Defense announced an initiative, the JIE, to consolidate infrastructure in order to improve mission effectiveness, achieve savings, and improve network security.

A Senate Armed Services committee report included a provision for GAO to evaluate JIE. GAO's objectives were to (1) determine the extent to which DOD has effectively established scope, cost, and implementation plans for the initiative and (2) determine the extent to which DOD is executing effective oversight and governance of JIE. GAO compared JIE scope, cost, schedule, workforce planning, and security planning with leading program management practices, DOD guidance, and statutes. In addition, it compared JIE governance with leading practices.

What GAO Recommends

To help achieve JIE benefits and to enable effective oversight and governance, GAO recommends that DOD, among other things, fully define JIE's scope and expected cost, and take steps to improve workforce and security planning. DOD described steps it is taking or plans to take to address all of GAO's recommendations.

What GAO Found

The Department of Defense (DOD) plans to spend almost $1 billion by the end of this fiscal year to implement one element of the Joint Information Environment (JIE); however, the department has not fully defined JIE's scope or expected cost. Officials reported that assessing the cost of JIE is complex because of the size and the complexity of the department's infrastructure and JIE's implementation approach. However, without information about expected JIE costs, the ability of officials to oversee and make effective resource decisions is limited.

In addition, DOD has begun to assess the workforce needed to operate JIE, but has not determined the number of staff and the specific skills and abilities needed. DOD also lacks a strategy to ensure required JIE security assessments are conducted. Officials stated that the department has taken steps to address JIE personnel and security needs, but it does not have plans in place to address these existing gaps. As a result, DOD risks having a deficient security posture and not being able to ensure that it will have the appropriate workforce knowledge and skills needed to support JIE.

Table: JIE Elements

Element	Description
Single security architecture	Department-wide network security architecture
Optimized networks	Reduced number of networks
Identity and access management	Capability to create and administer identities across the department
Data centers and nodes	Core data centers and nodes to provide fast and secure connections to any application or service from any authorized network at any time
Software application rationalization and server virtualization	An effort intended to enable efficiencies and enhance information sharing
Desktop virtualization	A standardized virtual desktop environment
Mobility services	Integration of secure and non-secure communications and portable, cloud-enabled command and control capability
Enterprise services	Services, such as e-mail, provided in a common way across the department
Mission partner environment	A common set of standards, protocols, and interfaces to enhance data sharing with other agencies; allies; coalition partners; and private sector organizations

Source: GAO analysis of agency data. I GAO-16-593.

DOD has recently begun efforts to update the JIE governance structure and processes, including identifying the decisions and processes that it needs to document to support the effort. For example, it identified the need to document the process for planning and approving deployment of new JIE capabilities. However, the department has not established associated time frames. Until DOD establishes processes for helping to ensure that JIE decisions are based on reliable scope, cost, and schedule information, the department will face continued challenges in its ability to effectively oversee the initiative.

United States Government Accountability Office