September 2005

DEFENSE LOGISTICS

Better Strategic Planning Can Help Ensure DOD's Successful Implementation of Passive Radio Frequency Identification

GAO Accountability·Integrity·Reliability
Highlights

Highlights of GAO-05-345, a report to congressional committees

Why GAO Did This Study

The Department of Defense (DOD) has had problems with tracking and identifying inventory for many years, most recently in Operation Iraqi Freedom. One of several tools DOD is using to address these inventory problems is radio frequency identification (RFID). RFID technology consists of passive or active tags that are attached to equipment and supplies that are shipped from one location to another. Although DOD did not begin official implementation of passive RFID technology until January 1, 2005, DOD has been using active RFID technology since the early 1990s and began developing policy and pilot testing passive RFID in 2003. As of January 1, 2007, all commodities, excluding bulk commodities, are to have passive RFID tags. Full implementation of passive RFID is estimated to cost hundreds of millions of dollars. This report (1) provides information on the status of passive RFID implementation, (2) addresses the extent to which DOD has developed a strategic approach for implementing passive RFID, and (3) highlights challenges DOD recognizes it faces in implementing passive RFID and any plans developed by DOD to mitigate these challenges.

What GAO Recommends

To ensure that passive RFID is effectively implemented, GAO is making three recommendations. DOD concurred with one and did not concur with two of our recommendations.

www.gao.gov/cgi-bin/getrpt?GAO-05-345.

To view the full product, including the scope and methodology, click on the link above. For more information, contact William M. Solis at (202) 512-8365 or solisw@gao.gov.

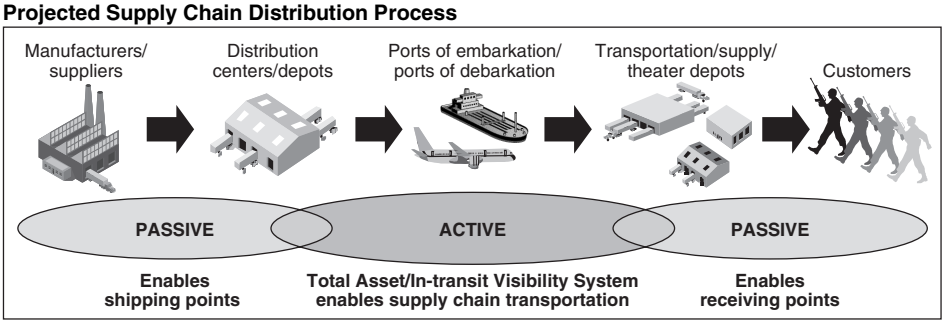
What GAO Found

Since 2003, DOD and the components have taken actions to begin using a potentially promising technology, known as passive RFID, throughout their supply chain operations (see figure below). These actions include development of policy and guidance and the use of pilot projects and initial implementation to test the technology's application to their business processes. In addition, infrastructure and funding have been provided, but this has been minimal because implementation did not officially begin until January 2005. Future funding requirements are expected to increase sharply as full implementation proceeds—from $6.6 million as of January 2005 to about $472 million projected from fiscal years 2006 through 2011. This $472 million projection does not include the cost of system interoperability, which officials believe will be the most expensive element of implementation. Full implementation of passive RFID in supply operations is not anticipated until 2016 or beyond.

While DOD has taken a number of actions to direct the implementation of passive RFID, it has not yet developed a comprehensive strategic management approach that incorporates sound management principles. The planning by DOD and its components lacks or only partially incorporates several key management principles needed to effectively guide, monitor, and assess implementation. The development of a comprehensive strategic management approach that fully incorporates these principles could provide decision makers with a framework to guide RFID implementation efforts and the means to determine whether these efforts are achieving the desired results. This affects both DOD and its components because the components are developing implementation plans to support DOD's RFID policy.

DOD has identified several challenges that will need to be resolved before passive RFID can be fully implemented, but it has not yet developed a mitigation plan to address these challenges. Some challenges relate to the fact that passive RFID is a new and evolving technology, while other challenges derive from operational issues and obtaining adequate funding. Furthermore, certain regulatory and administrative obstacles remain. Until DOD and the components identify actions to mitigate these implementation challenges, their progress in resolving these challenges may be impeded.

Projected Supply Chain Distribution Process



Source: U.S. Army.