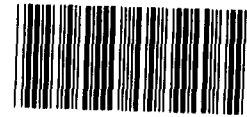


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Defense Distribution System Illustrates Problems
Facing Corporate Information Management
Interim Standard Systems

Statement for the record by
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Before the
Subcommittee on Readiness
Committee on Armed Services
House of Representatives



Mr. Chairman and Members of the Subcommittee:

I am pleased to submit this statement for the record as part of the Subcommittee's hearing on the Department of Defense's Corporate Information Management (CIM) initiative. This information reflects GAO's work to date on the Defense Distribution System, or DDS--a computer system nominated under CIM to be an interim standard system. DDS will integrate several existing systems that automate supply depots, including shipping and receiving, process control, and related warehouse operations. We plan to issue a report at a later date.

As you know, the Subcommittee requested that we review DDS as a case study to illustrate the issues Defense faces in developing and implementing interim standard systems under CIM. Under this concept, Defense seeks to identify the best of existing information systems in the Department, combine them as needed into a reduced number of systems, and then implement the interim standard systems across the Department. The Department hopes this will effect necessary management improvements until the CIM systems are fully developed and fielded.

Our review of DDS raises concerns about the analyses necessary to justify Defense's nomination of DDS as an interim standard system. DDS was nominated as an interim standard system even though (1) a cost/benefit analysis has not been developed, and (2) Defense's own

alternatives analysis did not conclusively recommend DDS. As a result, Defense's pursuit of DDS as the interim standard system for supply depots may not be justified.

BACKGROUND

In October 1989, the Deputy Secretary of Defense established the CIM initiative under the Defense Comptroller to improve business practices and the quality and consistency of data; reduce spending on multiple systems aimed at the same functional requirements; and develop common data requirements and formats. Distribution centers, or supply depots, became one of the first functional areas addressed by CIM. CIM stemmed from the Department's Defense Management Review.

In June 1990, the Defense Comptroller added an important new element to CIM--establishing interim standard information systems. He noted that this derived from "many comments on the merits of selecting the best system in the Department (i.e., Best of Breed) and fielding that system in order to realize savings sooner." Interim standard systems would replace redundant systems across the components and serve as standard systems pending development of long-term CIM functional and systems requirements.

In November 1990, Defense's Materiel Management Board nominated DDS as an interim standard system for supply depot automation.

According to Defense, the DDS nomination awaits final approval. Development and spending for DDS is proceeding, however, under another Defense Management Review initiative directing consolidation of all Defense supply depots to be managed by the Defense Logistics Agency (DLA). Defense estimated that significant savings would be achieved by combining the components' separate depot systems into a standard depot automation system. Accordingly, DDS is proceeding as a prototype effort to consolidate depots in the San Francisco Bay Area and includes the objective of demonstrating a standard system. Some DDS software is now being implemented in the Bay Area.

Technically, DDS is an attempt to integrate a number of existing systems and subsystems. The design was based on an understanding between DLA and the Navy, in which the DLA Warehousing and Shipping Procedures (DWASP) and the Naval Integrated Storage, Tracking and Retrieval System (NISTARS) would be integrated together. DDS was later expanded to integrate these core systems with other systems from the Army and Air Force.

COST-BENEFIT AND ALTERNATIVES ANALYSES REQUIRED

In June 1990, the Defense Comptroller issued guidelines on interim standard information systems emphasizing that a system qualifies as an interim standard system "only if net benefits accrue to the Department prior to deployment of the ultimate vision-driven

standard system." The guidelines note that benefits of selected systems must exceed the costs of transition and implementation. The guidelines also emphasize that an interim standard system must meet current functional operational requirements, be flexible enough to adjust to operational changes, and prove technically feasible, with the ability to interface with other systems. CIM functional groups were tasked with reviewing a list of alternative systems, assessing the capabilities of these systems and recommending the interim standard systems for each functional area.

COST/BENEFIT ANALYSIS NOT COMPLETED

According to senior Defense officials, Defense did not perform a formal cost/benefit analysis for DDS prior to its nomination as an interim standard system. It is not clear what the full DDS program will cost or whether its benefits will justify these costs. Defense's nomination of DDS as an interim standard system requires further review. Nevertheless, the program is proceeding under Defense's initiative to consolidate supply depots. According to Defense officials, DDS has been funded from budgets originally allocated for other systems, but they could not provide a complete forecast of DDS life-cycle costs. At the time of its nomination, DDS estimates did not identify all costs for installing DDS at supply depots outside the Bay Area or integrating it with various financial systems and other related logistics systems. The cost of

this integration, including customization of DDS for individual depots, may be high.

DDS NOMINATION NOT SUPPORTED BY CONCLUSIVE ALTERNATIVES ANALYSIS

Defense's decision to nominate DDS is not supported by conclusive analysis of the functional and technical merits of DDS relative to alternative systems. Defense's recommendation notes that the alternative systems had relatively equal functionality, and technical differences were insufficient to further differentiate them. The functional review team noted that given the subjective nature of the evaluation and the somewhat arbitrary development of criteria, it was unclear whether differences between system ratings were statistically significant.

As to meeting current functional needs, it is unclear whether DDS is suitable for combined supply and maintenance operations, which are typical of the Air Force's Air Logistics Centers. Relative to technical merits, the DWASP component of DDS is based on batch methods rather than modern on-line, database methods, such as those employed in the Air Force system. Further, a consultant's study provided to DLA sharply criticized the merits of the Navy's NISTARS system used in DDS, finding it technically inferior to another candidate warehouse control system.

Finally, as noted, the CIM criterion for technical feasibility requires that interim standard systems be able to interface with other systems. According to Defense officials, there are disparities between data and transaction structures used by the systems being integrated into DDS, and by other related systems. The lack of underlying data and transaction standards can account for a substantial amount of the technical difficulty and cost of integrating separate logistics systems into DDS.

OBSERVATIONS

Although we have not yet concluded our review of DDS, the uncertainties surrounding its costs and benefits, as well as Defense analysis finding no conclusive superiority over other alternatives, leave open to question whether DDS is justified as a CIM interim standard system.