



Whitemarsh
Information Systems Corporation

Section of
Analysis of United States DoD
Defense Information Systems Agency
8320.1-M-1 Data Standardization
Procedures

Whitemarsh Information Systems Corporation
2008 Althea Lane
Bowie, Maryland 20716
Tele: 301-249-1142
Email: mmgorman@wiscorp.com
Web: www.wiscorp.com

EXECUTIVE SUMMARY

The current draft of the DoD 8320.1-M-1 Data Standardization Procedures manual and its attendant software system are sure to be changed and supplanted by an adequate DoD data standardization procedure in the near future. This change will occur for the following reasons:

- Federal standards policy requirements. The DoD is required to follow public law (PL 104-106 and PL 104-113 (e.g., OMB Circular A-119 now public law)) that requires federal agency use of standards developed by private consensus standards organizations at the national and international level (e.g. ANSI, ISO, and IEC). This means in practice that the DoD (Draft) Data Standardization Procedures must give way to the ISO standard 11179 on the same subject.
- Inadequacy for its intended purpose. The current DISA draft data standardization procedure cannot achieve the objectives of DoD data standardization because of a critical conceptual error in the DISA approach to data standardization. This critical conceptual error is its inappropriate definition of a data element. A data element in DISA's approach is defined at the level of granularity of a column within a table. For sharing data between different database systems, however, a data element must exist in a one-to-many relationship with columns within tables (or any other type of container such as file, screen, process, report, etc.). Because of this critical and methodologically fatal error, the DISA data standardization approach cannot ever achieve the objectives and goals of DoD data standardization.
- Lack of scalability and extensibility. The current draft DISA data standardization approach and procedure addresses only one of the five classes of databases within an enterprise's total data architecture. This current procedure does not allow DoD to share data across the full range of databases that currently exist and that are under development for original data capture (also known as OLTP database applications), TDSA (transaction-data staging area) database applications, subject area databases (also known as ODS (operational data store) database applications), wholesale and retail data warehouses, and finally, reference data database applications. The DISA model addresses only the first class of data architecture: original data capture (OLTP).

