DoD FORMS MANAGEMENT PROGRAM

AUTOMATED INFORMATION SYSTEM (AIS)

FORMS DESIGN SYSTEM MODERNIZATION PLAN

Directorate for Information Operations and Reports
Information Control Division
Washington Headquarters Services
Office of the Secretary of Defense

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#398

Migration of the Current ICD Forms Processing System to a

DoD Electronic Forms Standardized Initiative

This plan identifies the major aspects of AIS program management documentation for the modernization of the forms automation capability of the system currently used by the Directorate for Information Operations and Reports, Washington Headquarters Services (DIOR, WHS). It is being completed to provide a basis for management review and assurance of the implementation of a sound program management approach.

Additionally, the documentation in this plan is intended to provide facts to permit assessment of compliance with DoD Life Cycle Management (LCM) policy, and the evolving Corporate Information Management policy; to indicate AIS affordability and cost-effectiveness, including a Business Case Analysis; to illustrate plans that minimize program and technical risks, and to demonstrate the quality and completeness of program planning and program management in this matter.

Current DoD Life Cycle Management policy requires the following elements to be addressed in the program management activities related to a new or modernized automated information system:

1. Need Justification - What's needed? Is it justified?
2. Concept Development - How best can it be done?
3. Design - Is the design okay?
4. Development - Does the system work?
5. Deployment - Is the system operationally acceptable?
6. Operations - Time to modernize or replace? How best can this be done?

In addition to the DoD LCM policy that has traditionally served to ensure sound AIS program management, the DoD Corporate Information Management Initiative has initiated these additional systems principles to govern DoD activities in AIS acquisition:

CIM System Principles direct that the ultimate technical objectives are vendor-independent systems, assembled from standard components, interoperable, with single-point data entry, nonredundant databases and freedom of customer choice. Effective variety is constructed from standard elements. There are no future systems and no interim systems; there are only migrating systems. Tightly focused rapid implementation within a generally defined strategy offers most gains and lowest risks.

CIM Management Principles embody several concepts impacting information technology. The objectives of the CIM are to meet functional cost reduction targets and to deploy information

technology in support of functional cost reduction and effectiveness objectives. A Functional Economic Analysis (FEA) must be completed for every Automated Information System (AIS) as one of the factors to be used in approval for funding.

The following three CIM Principles provide a governing managerial context for information technology program planning and implementation.

First CIM Principle:

The customer - the Function with business process authority and performance accountability - defines systems requirements, manages implementation, and measures results.

Second CIM Principle:

Simplify the business process before you computerize. Gain effectiveness and reduce costs by changing how people work. Apply technology only after you are sure that organizations can implement the changes.

Third CIM Principle:

Fastest progress, at lowest risk achieved by evolutionary migration. Organizations learn best by experiencing frequent successes.

Announced in June 1991, the CIM Managerial Concept for the DoD Open Systems Architecture 1991 directs an evolutionary and rapid response acquisition process that is based on an information technology strategy that complements the business or DoD mission strategy.

The business strategy is derived from a review of the business methods and process models. Productivity improvement projects are initiated to simplify or improve the business methods and process models.

Productivity improvements that can be derived from use of modern technology are factored into requirements for architecture tools, software components, and data and standards that are subsequently reflected in the evolutionary design, evolutionary deployment, operations, and maintenance of an AIS. An analysis is made of the costs of the alternative business methods and process models. This analysis is referred to as a business case or functional economic analysis. The costs of continuing current methods and processes vs. investments in other ways of accomplishing the mission functions and processes should produce the best business case. (See Appendix 1).

The acquisition of the computer resources occurs in parallel with the refining of the information technology strategy to ensure the continuing effectiveness of AIS resources in the support of the business strategy of the DoD Component.

I. ICD NEED AND JUSTIFICATION

A. The current Xerox forms design system is obsolete. Currently, a PC based AIS in ICD satisfies many of the ICD administrative support and forms data management requirements. A separate system, a Xerox 6085 configuration and laser printers, supports the ICD forms design function. The Xerox 6085 system has completed its life cycle, having been in operation in DIOR since the 1982-83 timeframe. Repairs are becoming increasingly more expensive. The Xerox Corporation introduced this technology in 1982 and will not support future enhancements to the 6085; but, instead, has moved to a PC based technology as its own direction of the future. The desktop publishing/graphics emphasis of this system deemphasizes technical capabilities otherwise needed, such as, database processing. It is a proprietary system and does not permit interoperability with the primary system in the organization.

B. ICD functions require migration of the forms management system toward technical standards currently evolving in DoD.

(1) DoD Forms Management Program automation initiatives must also be cognizant of the need to be consistent with the evolving DoD Electronic Data Interchange (EDI) Initiative. The EDI Initiative focuses entirely on greater automation of the business processes of the procurement activities between the Department of Defense and its suppliers. Forms serve as the basis for these business processes.

(2) Technical standards such as those contained in the DoD Computer Aided Logistics System (CALS), and those being developed by the National Institute of Standards and Technology for the EDI program, with CIM sponsorship, are migrating towards PC based, open system architectures. Data dictionaries technology standards are also being addressed by an EDI initiative involving the DoD procurement agencies. As Manager of the DoD Forms Program, the DIOR, WHS, must plan to rapidly migrate from the current Xerox system toward such architecture tools and software components.

C. Productivity improvement opportunities represent significant cost savings and more timely information support to DoD.

(1) The uncontrolled proliferation of the electronic forms design, existing lack of integrity of the forms being electronically generated and the information being collected, use

of outdated editions of the form, use of copies that are not true facsimiles of the approved forms, and other similar practices compromise the integrity and effectiveness of the DoD mission function for which a form was originally carefully constructed and designed to support.

(2) Significant cost reduction, productivity improvements, timeliness of response to DoD information support needs, and more positive controls over proliferation and integrity are thought to be possible by a standardized DoD software approach for the electronic design, fill-in, storage and printing, and reuse of the information collected by the forms in the databases.

(3) The DoD Component Forms Management Officers (FMOs) and their forms constituents are all customers of DIOR for forms management support. Current procedures used to accomplish the forms design function involve iterative rounds of correspondence between DIOR and the customer. The process may take several weeks and much staff involvement, through several levels of the DoD, before a form can be approved for use. Revisions to existing forms follow the same procedures.

(4) With a standardized forms management and design software package, DoD Component FMOs may choose to design their own Department of Defense (DD) Forms or DoD-sponsored Standard Forms (SF) or Optional Forms (OF) and submit the design electronically, or on a disk to DIOR for approval (instead of the currently used marked up hard copy of the form). If changes are required to meet DIOR design or regulatory standards, these changes can quickly be made by the DIOR/WHS FMO and the electronic form or floppy disk returned to the Component FMO until such time as the form is approved for use. This process can represent significant savings in staff handling of the requests, reduce DIOR design energies, and produce the product in a more timely process without compromising design standards or regulatory requirements.

(5) A recently revised DD Form 67, "Form Processing Action Request," has been approved for use at all DoD levels for processing and subsequently approving new, revised, or cancelled forms. This form will represent a tracking document used to generate a forms index at the DoD level, the Component level, and the Command or Installation level, as desired. Database development will correspond to the actual forms data and will permit formulation of forms listings (indexes) and functional files which can be searched by functional code or other basis to assist in the review for duplication and redundancy among those forms created and managed at the various DoD levels.

(6) The listings of all approved DD and DoD-sponsored Standard Forms (SFs) and Optional Forms (OFs) are currently published and distributed semi-annually to 39 FMOs. Publishing these listings represents significant expenditures in staff time and printing costs to notify the forms community of newly approved, revised, or cancelled forms. Additionally, the use of the DoD DDN is an objective for a comprehensive DoD Forms Library, whereby world-wide access to a copy of the most current edition of each DD Form, SF, and OF could be obtained. Use of the Forms Library could completely eliminate the need for installations to maintain copies of low-use forms.

(7) The forms listings will eventually be replaced through the distribution of CD-ROM disks which will be replicated from the database maintained by the DIOR, WHS, and updated each time DIOR approves a new, revised, or cancelled form. The Component FMOs will not have to duplicate the DIOR index, merely add its Component level forms. The CD-ROM disks will hold all the DD Forms and DoD sponsored SFs and OFs, and allow to print stock "on-demand" rather than maintain large stocks of preprinted forms. The savings in waste, and shipping and storage costs will be enormous.

II. CONCEPT DEVELOPMENT

A. Prior to the technology modernization of the DoD Forms Management business process, the following steps have been and/or are being taken to simplify the current procedures:

(1) Publishing DoD 7750.7-M, "DoD Forms Management Program Procedures Manual," which precisely and clearly documents the current forms processing procedures.

(2) Examining the potential simplifications, cost reductions, and productivity improvements which can be achieved by standardizing the DoD Forms Management Program and initiating subsequent changes to current procedures in the business processes.

(3) Obtaining a consensus within the DoD Component FMO community on specific forms management procedures and standards to be followed in forms processing, data management, and forms indexing to permit the data collected during forms processing to be reused in database systems and to allow transportability from the source machine to a variety of systems, through the use of floppy disks, CD ROMs, etc.

(4) Identifying a means to standardize and simplify the current support requirements of the 39 DoD Component FMOs currently provided forms management support by the DIOR, WHS, as the DoD Forms Management Officer.

(5) The PC based AIS used by ICD for general purpose computing has been modernized with "off-the-shelf" software applications, with some additional programming of the database applications. The evolutionary migration of the forms design software as an "off-the-shelf" package to be run on the existing ICD PCs moves the overall system forward as a more integrated system, and towards the open architecture which provides added flexibility for use. Elimination of the existing Xerox proprietary system from the configuration would also be an end product.

(6) Consistent with this concept, resources have been planned for within the ICD budget submissions which were incorporated into the DIOR IRM Plan (See Attachment 1).

III. FORMS DESIGN AND DATA MANAGEMENT REQUIREMENTS

A. The critical functional needs for the forms automation package must address the following requirements:

(1) Ensure the form image is "locked" to prevent any modification of the form's design after the DIOR, WHS, has approved the form.

(2) Provide affordable software (acquisition, use, and maintenance).

(3) Obtain open architecture, "off-the-shelf" software, usable in the MS-DOS, PC environment, at a minimum.

(4) Provide the flexibility of modular packages to permit the use of a forms design and fill-in packages for the limited number of DoD FMOs who will design the forms, and a forms fill-in package with low-end "fill-in" capability for the magnitude of users at a minimal cost.

(5) Provide government control and unrestricted reuse of data and design.

(6) Provide the capability to create floppy disks and CD-ROMs from the database field references.

(7) Provide accurate automatic fill-in, calculation, and validation.

(8) Provide the ability to extract data from the DD Form 67 database for automatic index and functional files creation and maintenance.

B. An alternative analysis of software packages was conducted. A variety of forms design and data management software packages were assessed by technical specialists from the

Departments of the Air Force and the Navy. The results of the technology assessments were incorporated into technical specifications which the DoD Electronic Forms Working Group determined met the functional requirements of the majority of DoD Component FMOs. These specifications resulted in the selection of PerFORM Pro in a recently awarded competitive contract. The U.S. Navy Standard Desktop Computer "Companion" Contract, Contract No. N66033-91-D-0002, complements the Air Force Standard Desktop III Contract. Both contracts permit use by most of DoD. This provides for rapid deployment at the least additional cost in acquisition activities for DoD Components. The cost of the software is the most advantageous as a product of a large volume competitive contract.

IV. DEVELOPMENT

A. The DoD Component FMOs and their constituents are all customers of DIOR, and the DIOR, WHS, has the mission performance accountability for the controls and procedures prescribed by a number of public laws, DoD issuances, and DoD programs. Involvement of the DIOR customer in defining system requirements, implementing the system, and measuring the results is being accomplished through the DoD Electronic Forms Working Group, chartered under the authority of the Director, Administration and Management.

B. The concurrence of the Working Group's recommendation to use a DoD Standardized Electronic Forms approach, using the variety of software and hardware products on the Navy and Air Force Standard Desktop contracts, has been obtained from the senior level approving officials of the Army, Navy, Air Force, Defense Logistics Agency, and the Defense Information Systems Agency, and the DoD Director of Administration and Management/Director, Washington Headquarters Services. (See Attachment 2).

C. A technical management plan and an implementation schedule, which encompass the development and deployment phases of the DoD Standardized Electronic Forms Initiative have been developed and are currently being expanded as additional details are coordinated through the DoD Electronic Forms Working Group (See Attachment 3). Each of the objectives and implementation schedules will be worked in collaboration, as well as specifically by each DoD Component FMO for his or her respective DoD Component. DIOR anticipates identifying additional information technology technical services through its own in-house resources, through those in the Air Force presently being used, and possibly though the DIOR, WHS, SSD, channels to the Air Force 7th Communications Group (7CG). These services will be further identified as the details of development and installment are further refined.