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**Blue Print for
Paper-free Contracting Process**



Revision A

4 Sept 97

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Blue Print for Paper-free Contracting Process

4 September 1997

I. Objective

Develop a blueprint for a plan to move to a totally paper-free contracting process that responds to the Department of Defense (DoD) Comptroller's Management Reform Memorandum #2 of 21 May 1997 - "Moving to a Paper-free Contracting Process by January 1, 2000" and Addendum to Management Reform Memorandum #2 of 29 July 1997. The Addendum requires the inclusion of the logistics community in their role for identification of requirements and product acceptance as part of the overall paper-free contracting process.

II. Vision

This blueprint envisions a shared information environment that builds upon ongoing electronic information initiatives (TAB A) and emerging technologies to ensure the integrity of information as it is developed, managed, and utilized throughout the contracting life cycle. When executed and managed, this electronic environment will allow global, secure access to procurement and payment related information for all functional areas of the DoD acquisition community.

The envisioned paper-free contracting environment will comply with the Global Combat Support System (GCSS) Common Operating Environment (COE), the DoD Technical Architecture Framework for Information Technology, and meet statutory and DoD requirements for information protection.

III. Background

Traditionally, the DoD acquisition process has been paper based, labor intensive, and heavily dependent upon manual and repetitive inputs from multiple functional communities. Improvements in electronic information communication, processing, and storage technology provide the tools necessary to replace traditional processes with a shared electronic process where information is created once and used many times. The capability exists to link multiple users at different geographic locations together to access,

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create, store, and retrieve common data and information elements. Each DoD functional area has embraced these electronic technologies and has implemented initiatives to eliminate paper within their respective communities. To meet the paper-free contracting process objective, these functional communities must now be electronically linked to share cross-functional information.

IV. *Blueprint and Process Plan Relationship*

- This blueprint is built on a foundation of full utilization of source data input; shared electronic documents, data and information; and secure transactions.
- The blueprint provides the current state of automated systems and electronic interfaces for the procurement function including the areas; contract writing, contract administration, finance, auditing, and requirements definition and acceptance. It drives the development of a detailed process to identify, analyze, and define required interfaces, infrastructure, and technical requirements along with re-engineered business practices essential to implement a totally paper-free contracting process.
- The detailed process will result in a plan that will allow for a managed contracting life cycle approach to ensure the integrity and continuity of information so it is created once and distributed to users through a shared environment.
- The plan will define a process to address integration of existing capabilities, and re-engineered business practices to allow a streamlined effort that will simplify and modernize the acquisition process.

V. *Blue Print Assumptions*

- The Defense Information Infrastructure (DII) will be in place,
- Military Departments and Defense Agencies will have local infrastructures and interface requirements in place that support data distribution, and
- Resources and maturing technology will be available to support the process.

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VI. *Paper-free Contracting Process Requirements*

The goal of the paper-free contracting process initiative is to utilize Electronic Commerce (EC) and automated methods, paper-based transactions and non-automated information systems from the DoD contracting process which incorporates requirements definition through product acceptance and payment by 1 January, 2000.

To achieve this goal, DoD must implement electronic systems to generate, manipulate, access, exchange, and share acquisition-related information and data. These electronic systems must be integrated to provide interoperable and compatible connectivity to all functions involved in the contracting process. The distribution environment formed by the integration of these systems must include all data essential to the conduct of the DoD contracting process. It must support the warfighter and combat support requirements, increase readiness by accelerating cycle times, decrease costs through improved efficiency, and simplify and streamline DoD operations.

This blueprint addresses the functions that are involved in the contract development, award, administration, audit and payment applications of the DoD acquisition process, the systems which currently support these functions, and the necessary changes that must be made to make these systems electronic, interoperable, and integrated to support the required paper-free acquisition information environment. It includes policies and procedures along with implementation milestones to drive achievement of the overall paper-free acquisition process goal.

VII. *DoD Contracting Process*

The DoD contracting process involves developing and acquiring goods and services to support the warfighter and related combat support requirements. Goods and services requirements can range from office supplies to major weapon systems. The DoD contracting process must support all these requirements with ordering, purchasing, payment, and other systems that facilitate and enable the overall acquisition process to occur. The functions of these systems include the following:

- Receiving requirements for goods and services
- Developing and acquiring goods and services

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- Identifying, selecting, and contracting with suppliers for goods and services
- Establishing and providing funds for goods and services
- Monitoring acquisition funds and goods inventories
- Paying suppliers for goods and services received, and
- Auditing the acquisition of goods and services

In general, these functions are divided into three inter-related communities; Logistics, Procurement and Finance. The paper-free contracting initiative seeks to automate processes and information management within and between these functional areas. It envisions implementation of a seamless interface among DoD requirements definition to include appropriate accounting, procurement, payment and receipt systems to expedite and improve responsiveness and management effectiveness of all DoD purchases. Paper-free contracting initiative objectives include:

- Interaction among the contracting, finance and logistics communities throughout the contract cycle
- Facilitate cross-functional shared, electronic data environment
- Simplify and improve the DoD contracting process through expanded use of electronic media such as purchase cards, electronic malls, and electronic solicitations (bulletin boards, e-mail, EDI, and Internet)
- Integrate all program accounting, procurement, and payment systems to expedite information sharing, contractor payment and elimination of accounting errors
- Automate DoD payment processes and use of Electronic Funds Transfer (EFT) to eliminate paper transactions and checks

VIII. Systems Within the DoD Contracting Process

The DoD contracting process begins with a user's requirement for goods and/or services. Requirements for new weapon systems and major system modifications go through formal processes to ensure they are compatible with National Military Strategy and Defense Planning Guidance. These system requirements are validated by the Joint Requirements

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Oversight Council. Funding for these programs is entered into the Five Year Defense Plan as part of the Department's Planning, Programming, and Budgeting System (PPBS). Other DoD requirements such as office support, replenishment spares, maintenance support, and a myriad of other requirements are also funded through the PPBS. For the purposes of the paper-free contracting process initiative, the requirement and the budgeted funds for that requirement can be considered inputs to the process. The output is the goods or services needed to meet the requirement and the payments for those goods and services.

To turn contractor requirements into the needed goods and services, the DoD utilizes a number of procurement, purchasing, and financial systems. The Department is moving to standardized, electronic systems to accomplish these functions. The Standard Procurement System (SPS) is being implemented to replace almost all current DoD procurement systems by the end of FY01 except for systems currently supporting DoD fuel requirements. SPS will be used to generate and support all types of contracts from major weapon systems to catalog-type ordering arrangements where Government buyers can use purchase cards to obtain goods and services using the basic contracts established by SPS. Like SPS, the Defense Procurement Payment System (DPPS) is planned to replace all current DoD procurement payment systems. DPPS is planned to be implemented in the FY99-FY01 time frame. These systems will be linked together via a common system architecture to facilitate electronic information exchange of DoD standard data.

The paper-free acquisition process environment must accommodate the vast array of goods and services purchased by the DoD. Although small purchases and micro-purchases are small dollar transactions, they account for the vast majority of DoD's procurement actions. Paper based, manual systems are still being used for these types of purchases.

The use of electronic methods for small purchase transactions must be expanded throughout DoD. Numerous small purchases and micro-purchases are now being conducted using electronic technologies such as purchase cards, electronic catalogs, electronic malls, electronic bulletin boards, Electronic Data Interchange (EDI), etc. SMART cards will soon be available as an additional technology to support small purchases and micro-purchases.

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IX. Paper-free Performance Measurements

As depicted in Figure 9-1, full implementation of the paper-free contracting environment will increase electronic commerce and improve contract and buyer efficiencies. A decrease in procurement administrative lead time (PALT), interest on late contract payments, and unmatched disbursements (UMD) should result when the paper-free environment is implemented. These metrics will be tracked to assess paper-free contracting performance.

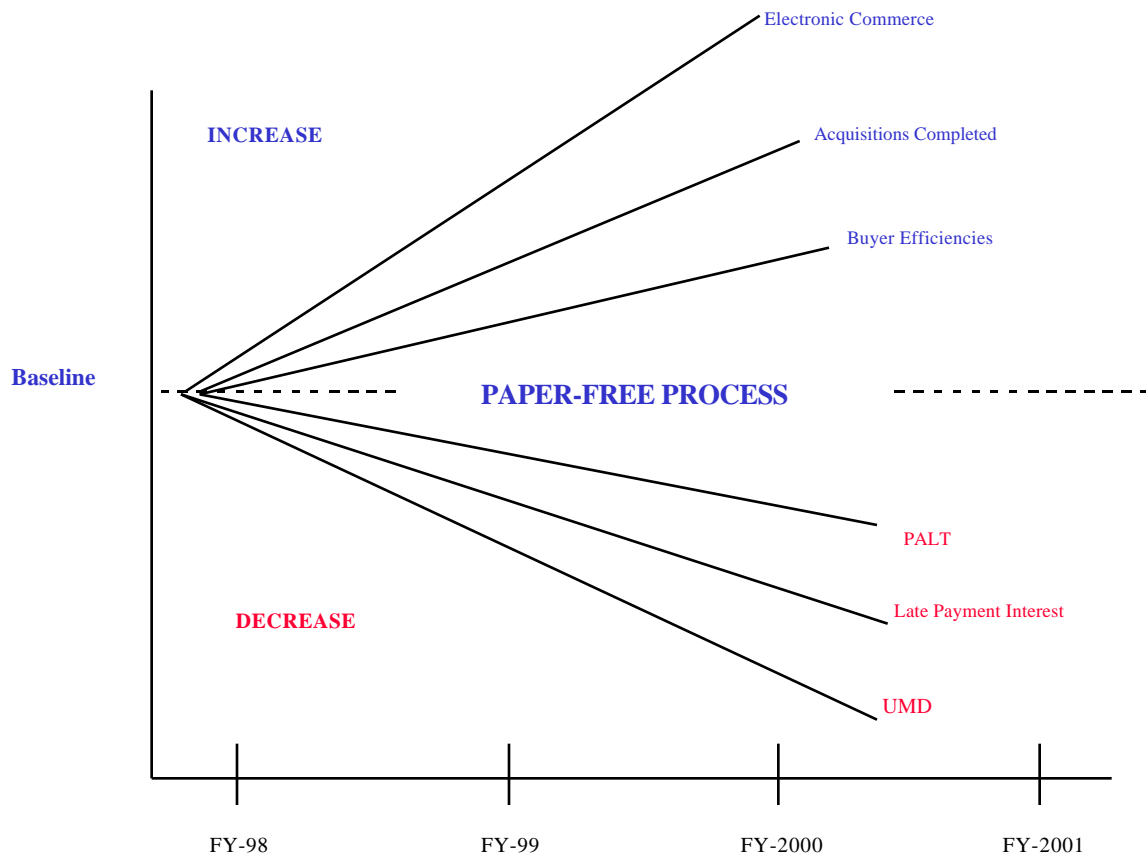


Figure 9-1 Paper-free Contracting Performance Measurements

X. Current DoD Contracting, Financial, and Logistics System Baseline

The following provides an overview of existing DoD major automated logistics, contracting, and financial processes. TABs B, C and D provide a brief synopsis of each of the major systems within these communities. TAB E provides statistics on current electronic commerce transactions being conducted by the Services, DLA, and DFAS.

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A. DoD Logistics Requirements Systems

The Addendum to Management Reform Memorandum #2 requested the inclusion of the logistics community as part of the paper-free contracting process.

While logistics business practices can interface with procurement activities in a myriad of requirements, two areas represent the majority of the workload.

Base and local level logistics systems interact with local procurement activities to acquire goods and services . Much of this business is largely satisfied by an interactive procurement and finance process which is planned for the Department's base level organization. Many local purchases can be made using electronic purchase cards.

The second of the two major areas of interface between procurement and logistics is the interaction associated with the purchase and delivery of all nine classes of supply which provide for wholesale inventories.

Blueprint of the Wholesale Logistics/Procurement Interface:

- Step 1. Legacy materiel management systems will forecast and generate purchase and repair requirements.
- Step 2. An electronic procurement folder will be initiated by a purchase request from the materiel management system.
- Step 3. Electronic communications among all principal functions will be facilitated and tracked throughout the procurement cycle.
- Step 4. Funding availability and funds citations will be automatically obtained through an interface with accounting systems. Automated funds status and accounting will be interactive throughout the procurement cycle.
- Step 5. An automated technical data package (TDP) checklist or performance specification for the requirement will be produced based upon the acquisition method coding and specified requirements of the item manager and buyer. Data will be automatically populated to the checklist whenever feasible.
- Step 6. Electronic interfaces with data bases containing packaging, transportation, hazardous material handling, or other special consideration information will be provided .

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- Step 7. A electronic interface with the JEDMICS repository will enable automated assembly of the technical data package (TDP) when a TDP is required.
- Step 8. The TDP will be electronically accessible by all authorized bidders.
- Step 9. Contract Status Accounting among procurement, distribution, materiel management and financial systems will be provided through data sharing technologies when feasible. Receipt and inspection reports will be in electronic formats.
- Step 10. Discrepancies will be submitted and processed electronically.
- Step 11. Procurement folders containing all referral actions and decisions will be electronically archived.

B. DoD Contracting Systems

There are nine major and ten minor DoD procurement systems in operation. Statistics included in Figure 10-1 are for only the major contracting systems as baselined by the SPS Program Office using FY94 data. More current statistics on specific systems were provided by DLA and are annotated in Figure 10-2. A full data call is required to identify current system velocity.

According to FY94 statistics, about two-thirds of DoD procurements were (and continue to be) processed by two major systems - the Air Force's BCAS and the Army's SAACONS. Manual processes at mostly Navy sites account for about 16% of DoD procurement actions, and about 30% of obligated dollars.

Major Systems	Total Actions(#)	Total Value (\$)	Total Actions (%)	Total Value (%)
BCAS	3,629,767	9,770,211,477	32.4	7.44
SAACONS	3,473,997	19,540,422,955	31.0	14.88
DPACS	1,257,363	9,494,439,379	11.2	7.23
APADE	647,732	4,386,089,561	5.8	3.34
BOSS	202,837	367,696,131	1.8	0.28
AFMC	78,445	32,724,955,647	0.7	24.92
ITIMP	72,842	1,707,160,608	0.7	1.30
PADDS	36,981	13,696,680,875	0.3	10.43
MOCAS	4,483	13,132,005	0.0	0.01
Non-Automated	1,800,875	39,619,258,101	16.1	30.17
DoD Total	11,205,321	131,320,046,738	100.0	100.00

Data taken from SPS MAISRC II/IIIA Report Feb 97

Figure 10-1 Major Procurement Systems (1994 Baseline)

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System	Total Actions	Total Values (\$K)	Total Actions (%)	Total Value(%)
SAMMS	1,215,202	\$4,428,031	3%	12%
BOSS	78,872	\$336,383	.6%	.2%
DISMS	220,359	644,894	1.8%	.5%
DFAMS	1,744	3,965,756	.01%	2.9%
DISMS Detail	348,005	470,100	2.8%	.3%

Figure 10-2 DLA Contracting Systems Statistics (1996)

C. DoD Financial Systems

There are 198 certified Financial Manager's Integrity Act systems in place. For the purpose of this blueprint, only those financial systems providing contractual payments are shown in Figure 10-3 are addressed.

Systems	Invoice Activity	
	Quantity Processed	(%)
CAPS	4,399,386	29.4
IAPS	3,031,646	20.2
STARS	2,503,615	16.7
SAVES	2,385,936	15.9
MOCAS	1,226,831	8.2
SAMMS	1,068,020	7.1
DISMS	292,632	2.0
AVEDS	75,720	0.5
Total Activity	14,983,786	100

Figure 10-3 Major DoD Financial Systems Providing Contract Payment

XI. Transition to SPS and DPPS

A. Transition to Standard Procurement System (SPS)

The Standard Procurement System (SPS) has been approved as the single, standard procurement system to be used throughout DoD (Replacing Non-SAP only). SPS deployment is planned to over 800 contracting sites to replace all existing DoD procurement systems. Deployment of SPS will be completed by the end of FY01. SPS has initiated primary deployment to sites employing manual applications. Full implementation of SPS at all non-automated DoD procurement sites is essential to allow for these sites to interface electronically with other functional areas. The migration plan for SPS deployment is shown in Figure 11-1.

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Major Systems

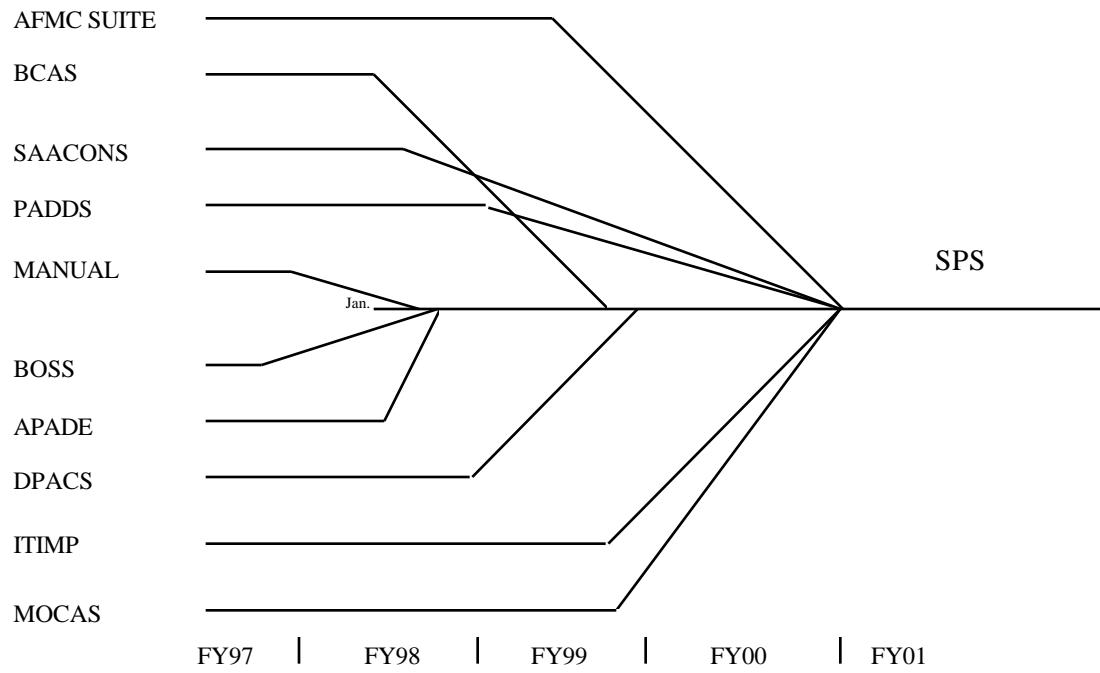


Figure 11-1 Migration of Major Procurement Systems to SPS

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B. Transition to Defense Procurement Payment System (DPPS)

The Defense Procurement Payment System (DPPS) will become the standard DoD procurement payment system used for contract and vendor payments, grants and other agreement entitlements, and generating information used by accounting, disbursing, procurement, and other systems. DPPS will not be used for DoD Fuels requirements. DPPS does not support the Year 2000 goal as currently structured. The DFAS Electronic Document Access (EDA) effort provides an interim solution for contract and vendor payment. Figure 11-2 provides the migration schedule for DoD contract payment systems to DPPS.

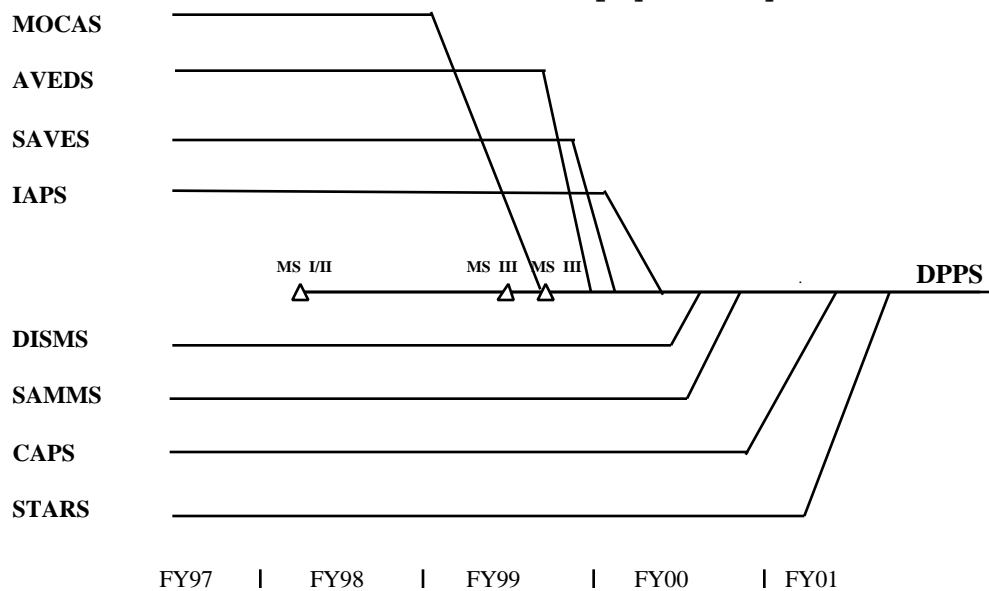


Figure 11-2 Migration of Major Payment Systems to DPPS

XII. Integrated Electronic Systems

To achieve a paper-free contracting process, a seamless web of electronic interfaces and systems must be established to generate, manipulate, access, exchange, share, and dispose of acquisition-related information and data throughout the contracting community. The shared electronic environment must assure the integrity and authentication of data provided to all users. As a minimum, the following functions must be accommodated electronically:

- Capture of requirements for goods and services must be provided to buying agencies;
- Budgetary fund cites for goods and services to accounting agencies;

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- Development of source data for solicitations;
- Issuance of solicitations;
- Linking of suppliers;
- Award of contract electronically;
- Invoicing suppliers electronically;
- Paying suppliers;
- Acknowledging receipt and authorizing payment by receiving systems;
- Tracking budgets, commitments, obligations, and payments without requiring data reentry in accounting systems;
- Providing supplier source data for potential future acquisitions (drawings, repair instructions and specifications); and
- Defining current and future environments for data and process flows.

All of these functions must be supported by a secure, electronic infrastructure. This infrastructure will range from the Defense Information Infrastructure (DII) and Internet to electronic bulletin boards and encrypted SMART cards. Figure 12-1 illustrates the required functional linkages which must be in-place to facilitate the paper-free acquisition process

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Figure 12-1 Migration of Major Payment Systems to DPPS

XIII. Electronic Bridge for SPS and DPPS

The Standard Procurement System (SPS) is being developed to replace contract placement and contract administration systems being used within the Military Departments and DoD Agencies. Until SPS provides the required functionality, the legacy systems will continue to be used. The SPS Program Office is responsible for fulfilling interface requirements between the SPS and standard non-procurement legacy systems. Interfaces between the DCAA auditing process and SPS have been included in the SPS functionality. No electronic bridges between SPS and legacy procurement systems are intended. When SPS contains the functions and interfaces for the legacy system users, a transition process will be initiated to include data conversion.

A central feature of SPS is a Shared Data Warehouse (SDW) that will provide electronic data storage and real time access to and manipulation of contract data. Stored data will be available to all DoD functional areas and can be made available to others on a controlled access basis.

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The Defense Procurement Payment System (DPPS) will generate information used by accounting, disbursing, procurement, and other systems. DFAS developed a concept and has begun the functional requirements analysis for the DFAS Corporate Database (DCD). The DCD will provide the capability to store finance and accounting data that is shared within the financial and other functional communities. It requires shared data to be migrated to a standard functional, technical, and systems environment. The implementation of the DCD will allow accounting, procurement, logistics, entitlement, disbursing, and reporting systems to share data using standard processes and interfaces. The DCD will house and maintain the business rules and interfaces to standardize the interaction and minimize the impact on existing accounting systems.

A need for separate procurement and financial data bases is questionable due to added costs associated with development and maintenance to assure that data is standard and both databases are synchronized. However, it is critical that an electronic bridge between SDW and DCD along with logistics systems interfaces be defined, developed, and implemented as shown in Figure 13-1 to allow global management, access and control of all life-cycle information.

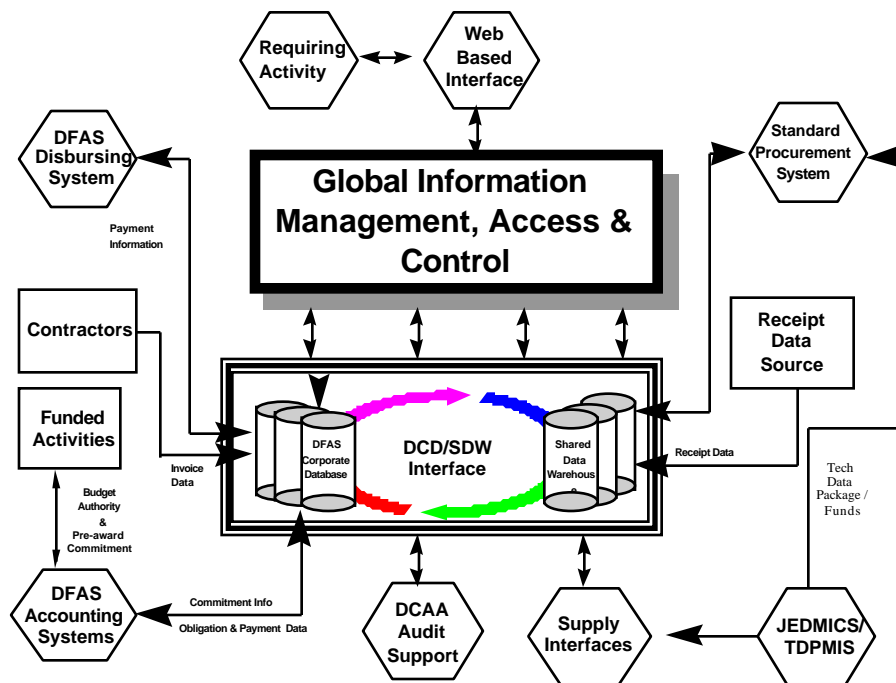


Figure 13-1 Shared Environment

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XIV. Paper-Free Contracting Process Plan

The initial step following adoption of this blue print in moving to a paper-free contracting process is the development of an integrated process plan. The process plan will identify, analyze, and define a methodology to manage the interfaces, infrastructure, and technical requirements along with re-engineered business practices to develop the secure, paper-free contracting environment.

A. Making It Happen

A Paper-free Contracting Team (PET) must develop the process and implementation plan for Paper-free Contracting. This will include as-is and to-be processes, required interfaces and facilitating technologies. The results of this effort will provide near-term results for management decisions to expedite implementation of the paper-free environment. This core Team will coordinate with in-place IPTs and dedicated working groups within each of the specific functional areas to achieve success in the implementation of each of these goals and ultimately a totally paper-free contracting process.

B. Goals and Milestones

The following specific goals and milestones must be implemented in the timeframes defined to allow for a paper-free environment for the acquisition and payment of goods and services within the Department by January 1, 2000. Each of these goals will require policy and/or guidance to ensure implementation.

1. Automate all non-automated sites within the Military Departments and Defense Agencies by January 1, 1999.
2. All automated procurement systems will output digital contract documents to the Defense Finance and Accounting Service (DFAS) Electronic Document Access (EDA) homepage for the purpose of electronically capturing contract payment information by October 1998.
3. Specific guidelines and protective applications or interim workarounds will be in place for the sharing of secure and accurate information both internal to the DoD and to our industry partners by October 1, 1999.
4. Credit cards will be used for 90% of all micro-purchases made within the DoD by June 1, 1999.

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5. All transactions associated with contracting, product acceptance, and contract payment will be standardized by January 1, 1999.
6. Technical data package information will be in digital format by January 1, 1999. The requirement for and delivery of aperture cards and other non-electronic drawing formats will be eliminated.
7. A single electronic receipt for settlement shall be the method of payment.
8. Solicitations will be electronically posted and distributed via electronic commerce methods by January 1, 1999.
9. All catalog supplier information will be available throughout DoD electronically, including WEB-based access, by 1 January 1999.
10. The internal use of digital signatures will be standard practice using guidelines provided by MRM#16.

XV. Process Plan Development & Execution

Global management and access to information by multiple users are the foundation for establishing an electronic environment to support a paper-free contracting process. To maximize the efficiencies of shared data, virtual technologies using distributive architectures to access data stored locally without regard to physical location must be further explored and implemented.

A Task Force must be chartered to develop the paper-free contracting process plan. To facilitate the development of this plan, the following management initiatives, schedule, and resources are recommended:

Management Initiatives	Schedule	Resources
• Establish a Senior Steering Group (USD Level) to monitor and support progress to a Paper-free Environment.	1 th Qtr FY98	
• Task the Principal Staff Assistants (PSA) to develop an integrated paper-free process plan from generation of requirement to contract close-out.	1 th Qtr FY98 through 2 nd Qtr FY98	\$ TBD*
• Task the Principal Staff		

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| Assistants to provide dedicated resources in support of paper-free contracting implementation | 1 th Qtr FY98 through 4 th Qtr FY99 | \$ TBD* |
| • Functional Area Implementation | 2 nd Qtr FY98 through 4 th Qtr FY99 | \$ TBD* |
| • Joint PSA Status Reviews | Quarterly mtgs | |
| • Senior Steering Group Monitoring | Quarterly mtgs | |
| • Establish Industry Steering Group to Provide Corporate Lessons Learned | Quarterly mtgs | |
| • Issue guidance/policy to mandate goals and milestones in Section XV. | 1 st Qtr FY-98 | |

Note: Resources required to develop a paper-free process plan by 2nd Qtr FY98 are estimated at \$300K with one dedicated full-time subject matter expert from each of the functional/Service communities. Funding requirements for electronic bridge development and paper-free functional implementation will be analyzed and defined in the process plan and provided to the senior steering group for coordination.

XVI. Estimated Costs to Achieve Success

It is estimated that the cost to achieve a totally paper-free contracting environment will be approximately \$722M. Tab F provides a breakout of these cost.

XVII. Concerns

Major Challenges

- Electronic interface to allow shared information
- Cross functional coordination
- Funding for infrastructure development
- Timely implementation of required systems
- Standard interface for information access via EC
- Standard face to industry for DoD buying and paying activities
- Transaction and data security

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Potential Challenges Requiring Further Study

- Resource availability and infrastructure adequacy at the field level sites
- Federal requirements to keep records in paper format
- Outsourcing potentials for procurement and financial functions.

There are no known technical barriers to implementing a paper-free process

XVIII. *Summary*

The Paper-free contracting process initiative will encompass all DoD. The Defense Information Infrastructure, Internet, and SMART card technology will provide the foundation to support information management and electronic commerce throughout the Department. The initiative will span the DoD acquisition process from electronic requirements documents and budgeted funds through electronic contracts, delivery notifications, acceptance documents, and payments and includes purchases made to sustain and maintain DoD systems and equipment. The paper-free contracting process will integrate logistics and procurement community systems with corresponding financial community accounting and payment systems to facilitate an integrated environment for the sharing of electronic information required to conduct business within the DoD.

XIX. *Recommendations*

- Approve this blue print.
- Establish a Senior Steering Group (USD Level) to drive the paper-free contracting process.
- Incentivize opportunities that will encourage process improvement to exchange digital information.
- Improve cross functional coordination and communication to effectively integrate the flow of information throughout the contract life-cycle.
- Review and eliminate at all levels those policies and procedures that require information to be stored on paper.
- Review statutory requirements for proposed legislative relief from paper creation, storage requirements, and

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monetary thresholds that apply to purchase card transactions.

XX. *Blueprint Team Leadership*

Name	Functional Area	Organization
Ann Barnes	Team Leader	ODUSD(L)/LCIIO/CALS
Bob Donatuti/Col Dave Kerrins	Contract Writing and Admin	OSD(A&T)DP
Ken Sweitzer/Dennis Idol	Finance	DFAS-HQ/FC
Joe Garcia	Audit	DCAA

XXI. *Blueprint Team Membership*

Name	Organization
Chandra Evans	ASA(RDA)
Charles A. Mills	ASN(RDA)/(ABM)
LTC Diana Davis	CECO (Wash)
Rosanne Beckerle	DFAS-HQ/M
Linda Holcombe	DLA-AQAC-R
Scottie Knott	DLA-MMP
Chris Bruno	DLA-MMPPRS
Jim Kimberly	ODUSD(L) (LCIIO/LBS)
Maj. Paul Yandik	ODUSD(L/ECIO)
Tim Denhardt	DUSD(AR)
Maj. Garry Shafovaloff	SAF/AQCI
Michael Sherman	TASC/OSD(CALS)

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Current DoD Paper-free Contract Automation Initiatives

Significant actions and initiatives currently in-place or being implemented to improve and automate contracting processes include:

The **Department's Logistics Community** is implementing Integrated Data Environment (IDE) solutions to support the development and storage of technical and program data. These efforts are utilizing Continuous Acquisition and Life Cycle Support (CALC) tools to migrate from a paper-intensive to paperless modes of operation. The IDE allows for the development and access of high quality and timely life cycle information. The IDE facilitates more efficient functional processes where technical data, created once and utilized many times, is managed through global data management and workflow applications to support acquisition and sustainment of weapons systems and commodities.

The **DoD Procurement Community** is developing and fielding the DoD Standard Procurement System (SPS), an electronic contract writing and contract administration system that will provide electronic reference libraries, forms, filing, and information distribution. SPS uses DoD standard data to facilitate information exchange. The objective is a seamless, paperless process from requirement receipt through contract close-out.

A central feature of SPS is a Shared Data Warehouse (SDW) that will provide electronic data storage and real time access to and manipulation of contract data. Stored data will be available to all DoD functional areas and can be made available to others on a controlled access basis.

The **Defense Finance and Accounting Service** is implementing a number of initiatives to secure a paperless environment by the year 2000.

DFAS is developing the standard Defense Procurement Payment System (DPPS) that will make use of the procurement information created through the Standard Procurement System (SPS) and stored as standard data in the Shared Data Warehouse (SDW) to calculate contract and vendor payments. The standard DPPS-generated information will be shared by SPS/SDW as well as accounting, disbursing, and any other systems requiring payment information through the DFAS Corporate Database (DCD).

With the implementation of Electronic Commerce/Electronic Data Interchange (EC/EDI), DFAS is currently receiving contracts, progress pay requests, public vouchers, and commercial invoices via the DoD Information

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Infrastructure. DFAS is pursuing Web-based technologies as a means to receive financial data in ANSI X12 format. DFAS is aggressively marketing the use of EDI with customers. The debt collection act of 1996 has accelerated the DFAS payment to electronic funds transfer (EFT) by mandating EFT for all transactions by January 1, 1999, thereby eliminating checks. Also in the area of outputs to the vendors, DFAS is providing the advice of payment in ANSI formats and sending these transactions with the payments through the Federal Reserve as CTX transactions.

Additionally, DFAS has implemented electronic document access (EDA) that allows the sharing of contracts and other business-essential documents using Internet and Web technology. Through the use of EDA, authorized DoD personnel can access contracts and modifications on line. EDA is an efficient Department-wide virtual file cabinet, making electronic read-only "shared" documents available to users in different functional communities to accomplish the mission. EDA provides the capability to electronically route, store, and retrieve documents, minimizing the need to print, mail, file, and manage the paper.

Internally, DFAS is implementing electronic document management (EDM) which employs automated workflow with imaging and foldering technology for all business documents. This allows processing of entitlements without any associated paper. If the DFAS customer cannot provide DFAS the data electronically, the information will be imaged and processed through EDM. DFAS is also developing the Defense Procurement Payment System to access data from the shared database eliminating paper transactions.

The **Defense Logistics Agency (DLA)** has implemented a number of electronic catalogs. In addition, GSA is putting in place a number of Government Wide Acquisition Contracts (GWACs) and Federal Supply Schedules (FSS's) catalogs for commodities especially in the information technology arena. Most of these catalogs can be accessed electronically via the Web. Catalog contracts will be developed using SPS with orders placed electronically using EC/EDI technologies after award. DLA has implemented an Electronic Mall whereby customers can access a wide variety of catalogs from their desktop via the Web, search for a specific commodity, and place the order using a Government purchase card or MILSTRIP requisition. Currently, it primarily applies to the ordering of commercial items but will evolve as other products, supply items, and services are included.

The **Defense Contract Audit Agency (DCAA)** has implemented initial steps in a move to entirely electronic workpapers and audit reports. In June of 1996 DCAA began delivering audit reports to customers in electronic format. DCAA has also

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developed a system to facilitate preparation of standard audit workpapers. The system automatically tailors workpapers to specific types of audits and creates an electronic workpaper file. DCAA is currently working on the next phase of electronic workpapers which will allow auditors to electronically share workpackages and provide for the electronic review of workpapers. DCAA will electronically access the SPS and SDW for audit related contractor inputs. DCAA will develop procedures for obtaining electronic contractor inputs not available from the SPS and the SDW. Outputs (primarily audit reports) from DCAA processes will flow electronically into the SPS on a routine basis.

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Procurement System Descriptions

MAJOR SYSTEMS:

1. **AFMC Suite** Air Force Materiel Command Suite

POC: Tony Braswell 937-255-4954 (ext.480)

AFMC has primarily used a proprietary system DPCI/WANG (products centers) and ACPS (logistic centers) for contract writing. ACPS users have EDI/FACNET capability through the Menu Assisted Data Entry System (MADES). An enhanced automated system is being provided to product centers that will enable populating MOCAS using 850 EDI transactions.

2. **APADE** Automation of Procurement & Accounting Data Entry

POC: Matt Neilson 717-790-4437

Automates procurement from receipt of requisition to close-out. Provides automated document preparation, clause selection, prices and purchase history, management information and workload reporting.

3. **BCAS-USAF** Base Contracting Automated System-USAF

POC: LtCol. Roland Schwandt 334-416-5965

The Base Contracting Automated System (BCAS) is an on-line minicomputer system located in each Air Force base contracting office worldwide. In response to requisitions from major customers, it produces buyer abstracts, written solicitations, purchase and delivery orders, basic agreements and contracts. Modifications to these orders are also produced. The system prints its own special contracting forms and produces management reports. Electronic customer interface is the normal means of providing data to customers with tape or floppy disk capability as a backup.

4. **BCAS-USMC** Base Contracting Automated System - USMC

POC: LtCol. Roland Schwandt 334-416-5965

The Base Contracting Automated System (BCAS) is an on line minicomputer system located at various Marine Corps

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installations. It processes requisitions/demands from major customers. It produces buyer abstracts, written solicitations, purchase and delivery orders, basic agreements and contracts. Modifications to these orders are also produced. The system prints its own special contracting forms and produces management reports. Electronic customer interface is the normal means of providing data to customers with tape or floppy disk capability as a backup.

5. **BCAS-USN** Base Contracting Automation System-USN

POC: LtCol. Roland Schwandt 334-416-5965

The Base Contracting Automated System (BCAS) is an on line minicomputer system located at various Navy contracting offices worldwide. In response to requisitions from major customers, it produces buyer abstracts, written solicitations, purchase and delivery orders, basic agreements and contracts. Modifications to these orders are also produced. The system prints its own special contracting forms and produces management reports. There are no interfaces.

6. **BOSS** Base Operating Supply System

POC: Michael Shea 703-767-1621

BOSS is an integrated supply system with a financial subsystem that includes funds control, trial balance reporting, subsidiary ledgers, and an allotment ledger. BOSS does not contain official accounting records, but passes a daily summarized interface file to DBMS containing commitment, obligation, expense, and disbursement transactions.

BOSS supports DLA deposits and Supply Centers and accounts for supplies, equipment, job services, rentals, and a retail stock fund. Labor and travel transactions are not processed in BOSS and the system does not have disbursing or entitlement functionality. Normally Operations and Maintenance (O&M) and Defense Business Operations Funds (DBOF) are accounted for in BOSS. BOSS also provides for automated purchase orders, Milstrip requisitions and inter-fund billings.

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7. DPACS DLA Pre-Award Contracting System

POC: Alan Alvarez 703-767-1431

DPACS utilizes desktop workstations and a three tier architecture (mainframe, minicomputer, PC) to automate traditionally "manual" simplified acquisition threshold purchases. It establishes electronic folders for buys and performs PR management, electronic solicitations, electronic receipt of vendor responses, and electronic award processes. It features expert systems to assist the buyer with vendor performance data, pricing assistant as well as help screens. Its clause module aids in clause selection and provides automated fill-in capabilities. DPACS is deployed at the Defense Industrial Supply Center, the Defense Supply Center-Richmond, and the Defense Supply Center-Columbus.

The ANSI X12, Version 3050, 836/850 transaction set has been deployed at the Defense Supply Center-Richmond and Defense Supply Center-Columbus. Their deployment dates were 16 Apr 97 and 23 Apr 97 respectively. The ANSI X12, Version 3050, 840 and 843/824 transaction sets are currently being tested at user sites and will be deployed in August 1997.

Initial data collection associated with DPAC's interfaces is not complete. Initial collection is tentatively scheduled to be completed on 11/16/97. More information will be available on-line at that time.

8. ITIMP Integrated Technical Item Management Procurement System

POC: Kathy Tonoff 215-697-0322

ITIMP is a standardized procurement data processing system designed to provide document control, management and buyer support information, automated document preparation, and interdependent system support to the NAVICP in Philadelphia and Mechanicsburg, PA, and the Marine Corps Logistics Base in Albany, GA.

The actual requirement for the purchase of an item or repair originates external to the ITIMP System. The funding of the Purchase Document (PD) and the management of the item or resource are also external to ITIMP. Therefore ITIMP interfaces with the internal Uniform Inventory Control Point (UICP) operations that control these functions including Inventory Management, Provisioning, Requisition Processing, Calendar Trigger, Transaction Processing, Financial Control, Budget

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Preparation, Data Entry/Maintenance, Data Retrieval, Cataloging, Repair Management, Pricing, and Decision Support. The system will accommodate such external requirements as Electronic Data Interchange (EDI) and Military Standard Contract Administration Procedures (MILSCAP).

The primary objective of the ITIMP System is to improve the responsiveness of the supply system by providing more effective and efficient procurement activities at the ICPs. Improved responsiveness is realized by reducing the time required to satisfy customer needs for materials and services while minimizing the effort and cost involved in meeting these needs.

Initial data collection associated with ITIMP's interfaces is not complete. Initial collection is tentatively scheduled to be completed on 8/20/97. More information will be available on line at that time.

9. MOCAS Mechanization of Contract Administration Services

POC: John May 614-692-9206

MOCAS is an on-line interactive database system designed to provide day-to-day support to a vast variety of post-award functions including: Contract and property administration, program and technical support, transportation, quality assurance, and contract payment.

10. PADDS Procurement Automated Data and Document System

POC: Carmen Jennings 703-617-8348

The system supports and provides the capability to automatically generate procurement documents such as solicitations, contracts, agreements, amendments and orders. The system electronically transmits data to contract administration components as well as financial offices and generates management reports and various registers used as management tools for wholesale level procurements.

11. SAACONS Standard Army Automated Contracting System

POC: Chuck Lowe 804-765-4768

SAACONS supports the base contracting functions performed in the Army and other defense offices. It has three modules: Contracting, system administration and security maintenance functions.

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12. SACONS Federal Standard Automated Contracting System

POC: Rosemary Evans

703-277-6855

SACONS, or **S**tandard **A**utomated **C**ONtracting **S**ystem, for Federal Agencies, is a windows based client server contracting system. SACONS provides a complete end-to-end electronic commerce environment that optimizes, facilitates, and accelerates the entire procurement / contracting process. SACONS is designed to meet the challenges of the procurement process beginning with Internet based initiation of a requisition by a customer / requester, to electronic posting and award of solicitations via electronic data interchange (EDI) standards, to the final close-out of the award.

SACONS, which is fully Year 2000 compliant, has been specifically designed to meet the full spectrum of simplified acquisitions to large contracts and anything in between. This includes a built in Commerce Business Daily and financial (Federal Financial System) interface capability for seamless interaction with vendors and federal agencies financial systems. Below lists some of the major functions found within SACONS: Requisitioning, Small Purchases, Contracting, Contract Administration, Amendments/Modifications, Award Data Collection and Reporting, Receipt Processing, Vendor Invoicing Certification, Source List Management, Contract Close-Out, Online Acquisition Regulations Research, Procurement Action and Acquisition (Milestone) Tracking, Vendor Pre-check list, IMPAC Card Functionality, Bidders Mailing List, Complete FPDS Reporting, and Site Defined Routing System.

MINOR SYSTEMS:

1. AM Tracking Acquisition Management Tracking

POC: Scott Morton

703-325-1200

Tracks the progress of a procurement through the procurement life-cycle.

2. COINS Commercial Operations Integrated System

POC: J. Russell Hutt 618-256-6027

Supports the day to day operations associated with Air Mobility Command's commercial carrier contracts.

3. DFAMS Defense Fuels Automated Management System

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POC: Henry Marrangoni

703-767-8700

The primary purpose of DFAMS is to provide an automated, integrated and responsive system of procurement, inventory control, distribution and financial management to support the integrated materiel management of bulk fuel and petroleum products.

DFAMS is composed of several applications which parallel the functional processes which occur in the Defense Fuel Supply Center (DFSC) and interact with the Defense Fuel Regions (DFRs), the Defense Fuel Offices (DFOs), the Defense Fuel Support Points (DFSPs), the Military Services, and Federal Agencies (which are the customers of DFSC). These applications are as follows:

- Automatic active contract data storage and document processing
- Validation and storage of supply transaction data.
- Reconciles physical inventory with book inventory data.
- Generates the Distribution Plan Authorization (DPA) and Source Identification and Ordering Authorization (SIOATH) for bulk petroleum.
- Records disbursements and refunds charged to the Stock Fund.
- Generates bills to and records collections from military and federal agency customers.
- Records and reports all inventory transactions against stock managed by DFSC
- Records any costs associated with movement of product within the DFSC supply network.
- Records any costs associated with the storage, maintenance and testing of DFSC fuel stocks that are chargeable to DFSC's customers
- Maintains DoD Activity Address Code (DODAAC) names and addresses to be used by other applications.
- Records all financial transactions in a general ledger
- Records and controls stock fund allotments, reservations, commitments, obligations and expenditures.

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DFAMS supports more than 600 DFSC Headquarters personnel as well as hundreds of customers worldwide. It is a centralized, highly integrated materiel management system handling all processing of data related to petroleum products. The DFAMS data base consists of 90 production master files that contain approximately 4 million records. These files are formatted under the Model 204 data base management structure. DFAMS is run on a large scale IBM compatible mainframe computer which is tied into the DISN via a front-end telecommunications processor. Access to the DFAMS computer is via personal computers with 3270 emulation software and asynchronous dial-up terminals operating in an asynchronous mode. Some 300 terminals and 100 printers have access to DFAMS mainframe on-line data base files.

4. DISMS Defense Integrated Subsistence Management System

POC: Betsy Smith 215-737-4290

DISMS is the singular DoD system for management of the world-wide wholesale food business in support of military troop feeding and commissary resale. DISMS is a database management, transaction processing system comprised of a requisitioning module, a distribution module, a procurement module and a financial module which is responsive to DFAS requirements.

5. DOCUMETRIX

POC: Herman Louie 703 767-6332

The DOCUMETRIX system, a COTS product from Universal Systems, Inc., is a document imaging, storage, indexing, and retrieval application with an integrated workflow capability allowing for the automated routing of documents. Documents may be scanned images or native format documents from other applications. DOCUMETRIX runs on an IBM PC compatible workstation in a windows environment. As a client/server application, the server may be Microsoft NT or Novell. The DOCUMETRIX Workflow Builder is a client application used to route documents managed by the DOCUMETRIX system. An administrator of the Workflow process uses the Workflow Builder to create a routing path of users who need to be included in the process path. The DCMC uses DOCUMETRIX for digitization of documents in its Administrative Contracting Officers folders and personnel folders.

6. DSIS Decision Support Information System

POC: Sharon Averona 215-737-7400

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This system of the DCMC Industrial Analysis Support Office (IASO) in Philadelphia is the umbrella title for a set of automated technical, financial and industrial relational databases. These are set up in a client server environment to support international DCMC initiatives. Data is collected by the DCMC network of industrial capability managers located at each CAS office around the world and added to the DSIS on-line. Each IAS manager is a supplier and IASO is the customer. This customer-supplier relationship is a strong one and ensures that the data collected is current and accurate. Security considerations and constraints are in place to safeguard the information. The electronic information can be accessed by anyone in DLA or DCMC with a networked computer. The data is used to support DoD initiatives and requests for analysis of data.

7. **EBBs** Electronic Bulletin Boards

POC: John Boris 215-697-4590

The Defense Industrial Supply Center, the Defense Supply Center-Richmond and the Defense Supply Center-Columbus are currently using EBBs. The EBBs make data accessible to vendors who have been screened and given access. Quotes are left by vendors and selected 843 transaction set data is provided to buyers in a standard format in the DPACS. Awards are loaded into and then issued by DPACS.

8. **FARA-DLA** Federal Acquisition Regulation Automated-Defense Logistics Agency

POC: Julie Kurnc 703-767-5505

FARA is a commercial-off-the-shelf (COTS) package developed by CompuSearch Software, Inc. FARA has two modules, the Research Module and the Document Assembly Module. The Research Module provides for search and retrieval of contracting regulations from the FAR, DFARS, and DLAD. The Assembly Module "builds" sections A-M of a solicitation package.

9. **FFAVORS** Fresh Fruit and Vegetables Ordering and Receipt System

POC: Maj Silven Gantt No listing available

FFAVORS is the singular DoD system for management of the world wide wholesale fresh fruits and vegetables business in support of military troop feeding and commissary resale. The system integrates the requisitioning, ordering, issuing, stocked item catalog maintenance,

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warehousing, shipping, contracting, and billing functions necessary to manage the FF&V business. The system operates daily both on-line and in batch mode.

10. MALT Medical Automated Long Term Contracting

POC: Tom McCarthy 215-737-7369

MALT is an automated delivery order process for all medical items. This is a unique system based upon a mainframe computer programmed in COBOL. There is an interface to SAMMS.

11. POPS Paperless Ordering Placement System

POC: Dave Dimmick 804-279-3493

The POPS system, currently used at Defense Industrial Supply Center, the Defense Supply Center-Richmond and the Defense Supply Center-Columbus places electronic orders against Indefinite Delivery Contracts (IDCs) established for various items. The POPS screen occurs when a recommended buy is passed to Procurement and is invisible to requisitioners. Vendors confirm orders electronically and ship from their distribution system allowing DLA to avoid handling costs. POPS only uses the 850 EDI transaction set. DSCR is electronically sending 850s for source inspected items.

12. PRISM-USN Procurement Request Information System-USN

POC: Lynn Fox 703-602-4519

PRISM is a COTS package used by NAVSEA for entering and creating Purchase Requests, Requests for Quotations, Purchase Orders, Delivery Orders, blanket purchase agreements, BPA calls, and IDIQs. It also generates DD1057 and DD350 reports. There are 16 users of PRISM at NAVSEA HQ.

13. SPEDE SAMMS Procurement by Electronic Data Exchange

POC: Richard Fitzgerald 215-697-4747

SPEDE primarily provides an electronic capability to place calls against Blanket Purchase Agreements (BPAs) at four of the five DLA Supply Centers. At the Defense Personnel Support Center, SPEDE Medical issues electronic orders to three BPA vendors, chooses the low offeror and cancels the others. At the remaining Centers, SPEDE issues EDI orders on a rotating basis against BPAs or

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Indefinite Delivery Contracts, vendors acknowledge via EDI and SPEDE authorizes shipment (BPA limit \$2,500).

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Financial System Descriptions

1. AVEDS Automated Voucher Examination Disbursing System

POC: Roger Winters

703-767-9635

AVEDS is a procurement payment system programmed to process invoices in accordance with the Prompt Payment Act and regulated cash management policies. AVEDS is used by DFAS-CO to pay Defense Fuels Supply Center vendors for purchase of fuels. AVEDS automates the process of vendor invoicing and disbursement with the use of six subsystems:

- Invoice initiation
- Data entry
- Supervision
- Disbursement
- Check printing
- Reporting and query

AVEDS supports:

- Receipt, entry, and control of invoices
- Examination of invoices for propriety and accuracy
- Disbursement of funds within applicable government guidelines, adherence to statutory laws, and within the framework of sound and prudent fiduciary standards.

The invoice data is entered into the system. In the supervision subsystem, the invoice data goes through examination, review, and certification. Once the invoice is verified correct for payment, the invoice is certified, the voucher is printed, the check number is assigned, and the check is printed for payment.

The supervision subsystem allows for the updating and examination of invoices for accuracy and propriety. This function permits a closer validation of invoices and the capability of changing certain information not allowable in the data entry function. The supervisor function provides:

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- The capability of extracting information to assist management in decision making.
- A provision of an interview and ad hoc reporting mechanism.
- A "hands on" stewardship role or management to review, release, cancel, or disallow payments, interest charges, or invoices.
- The capability of management query and reporting. The final function, disbursing, permits the issuance of checks, reconciliation, reporting to the Treasury Department, and the generation of reports.

2. CAPS Computerized Accounts Payable System

POC: Scott Shellberg

317-543-7947

CAPS is a micro-computer program developed to automate manual functions in the accounts payables office. CAPS provides the voucher examiner with data and tools to verify commercial invoices for payment. The system automatically suspends commercial payments and follow-up letters and allows for payment computation.

The CAPS entitlement process examines, computes, and analyzes invoices from commercial vendors for payment. Generally CAPS needs key data from:

- Contracts
- Receiving reports and payment requests
- Funding documents
- Vendor information files

Once the entitlement is verified, CAPS then provides disbursement data to make the disbursement, posts accounting records, updates contract records, and produces vouchers and management reports.

CAPS will determine payment due dates, compute interest penalties and lost discounts, as well as determine if a discount is cost effective based on the current Treasury rate. CAPS also allows for entry and processing of purchase rate and entry and processing of purchase orders and contracts in foreign currencies. CAPS allows for entry of electronic fund transfer (EFT) information for vendors who elect this type of payment.

3. DISMS Defense Integrated Subsistence Management System

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POC: Mike Pintar

614 693-7026

DISMS is a vendor payment system which is used by DLA Supply Centers and the Defense Personnel Support Center to provide for the procurement and distribution of subsistence items worldwide for troop issue, commissary support, and civil agencies. DISMS has been designed as an on-line database management system that integrates all aspects of processing. DISMS is an integrated system that consists of the following components:

- Subsystem for central semi-perishables
- Direct commissary support
- Financial subsystem

No updating can be accomplished unless all validations have first been satisfied.

4. IAPS Integrated Accounts Payable System

POC: Natty Clemens

303 676-7378

IAPS provides to the Air Force the automatic processing of local purchase accounts payables at base level. DFAS-DE uses IAPS as the vendor payment entitlement system. The IAPS performs automatic reconciliation of contract, invoice, and receipt data by line item for stock fund purchases and by appropriation for services.

5. MOCAS Mechanization of Contract Administration Services

POC: Ron Kunihirol

703 767-3381

MOCAS is used by Defense Contract Management Districts (DCMD) and DFAS in the administration and payment of supply and service contracts. It is a batch-oriented system that was developed in 1968 and updated in the 1980s to an on-line interactive system. MOCAS is made up of several subsystems that support DCMD's contract administration.

The MOCAS financial subsystem is the primary subsystem used for procurement payment entitlement determinations. MOCAS provides the buying, funding, and receiving activities with the following data:

- Contract obligation and unliquidated amount
- Contract delivery schedule
- Quality problems and workload

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- Shipments accepted
- Contractual actions
- Contract payment history and closing date
- Financial reports for the military services and the U.S. Treasury

In general, the MOCAS entitlement process requires:

- Contract data
- Proof of government acceptance of goods and services
- Proof of government approval for progress payment (when applicable)
- Request for progress payment (when applicable)
- Invoice from contractor
- Assurance that funds are available to make the payment

When the contractor delivers performance on the contract, the contractor submits documentation for proof of acceptance by the government representative (DD250). When the government accepts the contractor's performance, that information is entered into the MOCAS system. The MOCAS entitlement determination process begins with the submission of a request by a contractor for payment. Automatic entitlement determination is made when the data in the MOCAS system validate the government obligation to make payment on the contract. Manual entitlement determination requires hard copy contract review and validation of the entitlement amount and funding to make the payment.

6. SAMMS Standard Automated Materiel Management System

POC: Mike Pintar

614 693-7026

SAMMS is a centrally developed automated information system which is used by DLA Supply Centers to process requisitions, manage their items, issue stock from the depots and procure materiel from contractors. SAMMS employs the concepts of modular design that provides the capability of changes to one subsystem without affecting the total system; and multiple process involvement, which means that many processing routines can be accomplished simultaneously.

SAMMS is a composite system that provides for entitlement, accounting, and disbursement. It provides:

- Contract payments to vendors
- Daily processing of financial inventory reporting

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- Allotment
- General ledger accounting and reporting

The five major operational subsystems that SAMMS has besides the Entry/Exit process subsystem are:

- Distribution
- Procurement
- Requisitioning
- Cataloging
- Financial

The financial subsystem has the major functionality of vendor payment, billing, standard pricing, and inventory accounting. Generally, requests are submitted to DLA and a contract is established with a commercial vendor for the materiel requested. Once the materiel is delivered, the vendor submits an invoice for payment. To pay the vendor, SAMMS verifies receipt and acceptance of supplies and verifies the invoice data with contract data. When verified, the invoice is paid.

7. SAVES Standard Automated Voucher Examination System

POC: Charles Williams 614 693-8129

- Contracting
- Bill-paying (financial)

Bill-paying requires the data from DECA vendor invoices and receiving information for the material under contract. The invoice and receiving information are entered into SAVES. Once the entitlement is validated in SAVES, it creates a file for the invoices to be paid.

8. STARS Standard Accounting and Reporting System

POC: George Binko 216-522-6950

STARS consists of four integrated modules. STARS/FL (Field level) supports field level general fund accounting for Naval activities. STARS/One Pay handles part of the vendor and contract payment process for the Navy. STARS/CAM (Claimant accounting module) supports claimant accounting at the major command level, while STARS/HCM (headquarters claimant module) supports claimant accounting at the headquarters level. The

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STARS/FDR (fund distribution and reporting) module is currently under development and once it's fielded it will become the standard departmental reporting system for the Department of the Navy.

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Baseline of Logistics and Contracting Systems Interfaces

This portion is included to respond to Addendum to Management Reform Memorandum No. 2 to include the logistics community for requirements definition and acceptance of delivered product/service. The following provides a baseline of logistics applications.

Defense Logistics Agency (DLA) transactions represent the largest percentage of workload in this area. On behalf of the Department, DLA acquires commodities ranging from food products to unique spare parts for weapon systems. The majority of inventories classified as consumable are managed by DLA. The trend is to provide "blanket ordering vehicles of various types which permit direct ordering of products from manufacturers, wholesale distributors and third party providers. In effect, DLA brokers the relationship with suppliers and collects information by which to leverage the Departments position in subsequent contracts. Once the contract is in place; orders shipping arrangements and billing are all affected electronically. Transactions are largely based upon the "MILS" functional standards with required conversions to the appropriate commercial standard where appropriate.

While "blanket ordering arrangements" will satisfy a large percentage of orders for DLA managed products, DLA will continue to satisfy customer requirements through deliberate contract actions for inventory and direct delivery contracts. The Standard Acquisition and Materiel Management System (SAMMS) provides an automated notification of a requirement to initiate a purchase request. SAMMS supports the required interface for funds citation and accounting and the interface with the DLA Procurement and Contracting System (DPACS). Product delivery and receipt interfaces are supported through the transaction interfaces of SAMMS working with MOCAS and the Distribution Standard System. The acquisition method code for these procurements will range from sole source to fully competitive. Procurement technical data packages can range from performance specifications to full design disclosure with or without first article or in process inspections. The media of delivery of technical data packages is generally electronic. Drawings are pulled from the electronic Joint Engineering Data Management Information and Control System (JEDMICS) and established on a mid tier server for optional access by prospective bidders. This process is largely facilitated by a computer application referred to a Automated Bid Set.

The Services are in the business of managing equipment and components which are designed to be returned and repaired

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to serviceable condition. While a number of consumables which require special management continue to be managed by the Services, the largest share of Service managed items (in dollars) are repairable components. Service materiel management systems project customer demands and item survival rates to initiate contract actions for repair and new procurement.

Repair contracts are based upon a forecast for serviceable components. Most contracts apply to a range of items specifically identified in the contract. Terms of contract include testing criteria, condemnation criteria, incorporation of approved modifications as well as other special arrangement for government furnished equipment, storage and delivery. Army and Navy use the Commercial Asset Visibility (CAV) system to monitor contract activity.

New procurement of repairable items and Service managed consumables are acquired in a similar manner to the methods used at DLA. Service Materiel Management systems provide notification of the need to purchase an item and initiate the funding citation. The degree of automation varies by Service. The Navy Inventory and Technical Information Management Program (ITIMP) provides the highest degree of automation. The ITIMP system integrates the inventory managed and procurement processes. It builds an electronic folder which directs the work flow of a purchase request from the initiation of a purchase request to closure of a contract (and archiving). Communications and referrals among item managers, technicians and buyers are electronically facilitated throughout the process. The Air Force J090A/B provides similar capability. The acquisition method code for Service procurements will range from sole source to fully competitive. Procurement technical data packages can range from performance specifications to full design disclosure with or without first article or in process inspections. Interfaces are required to account for special materiel content and hazardous material considerations. The media of delivery of technical data packages is generally manual, although, all Services have stated plans for electronic receipt and delivery of Technical Data Packages. All Services use the Joint Engineering Data Management Information and Control System (JEDMICS) as the repository for drawings. The logistics community is considering linking access to JEDMICS repositories using the capabilities of the DII COE. Navy has already demonstrated this capability by enabling repositories to be linked using the JCALS Global Data Management System.

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Current Electronic Commerce (EC) Transactions

Overview Introduction

Electronic Commerce (EC) is a catalyst for streamlining the entire contract process. EC in its various forms is an enabling technology which supports a variety of purchasing methods. Internet and Web technologies are widely implemented within the Department and provide much of what is needed in an information sharing environment. Currently, many commands are utilizing the Web and Federal Acquisition Computer Network (FACNET) FACNET at this time, with its use projected to increase over the next few years as technology increases and funds become available. Applications such as electronic shopping malls with a proliferation of electronic catalogs are being developed by the Services and DLA. Electronic bulletin boards make data available to vendors who have been screened and granted access. In addition, DCAA is using the internet to deliver over 25% its audit reports.

The DFAS Electronic Document Access (EDA) effort (see TAB A) uses EC capabilities via the Internet to allow shared access to DoD contract documents. A number of DoD procurement systems are currently using EDA to access contract documents. The Navy's ITIMP and the Army's PADDs systems use EDA for vendor payments as well as contracts that are administered by Mechanization of Contract Administration Services (MOCAS). About 22% of all MOCAS payments are currently being made by access to electronic documents hosted by EDA. The Air Force is testing EDA for the BCAS procurement system at Scott AFB. By the end of FY97, the Navy's APADE and DLA's DPACS systems will also be using EDA. In FY98, other systems such as SAACONS, MADES, and AMIS will be testing incorporation of EDA technology.

Other EDA Applications

EDA technology is also being used for other billing documents:

- Government Bills of Lading (GBLs) used for obligation posting, research, and reconciliation:

Over 210,000 personal property GBLs available
Over 453,000 Freight GBLs available

- Payment Vouchers for research, reconciliation, and problem disbursements:

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Pilot: SRD-1 - Indianapolis, St. Louis OPLOC
MOCAS - Columbus

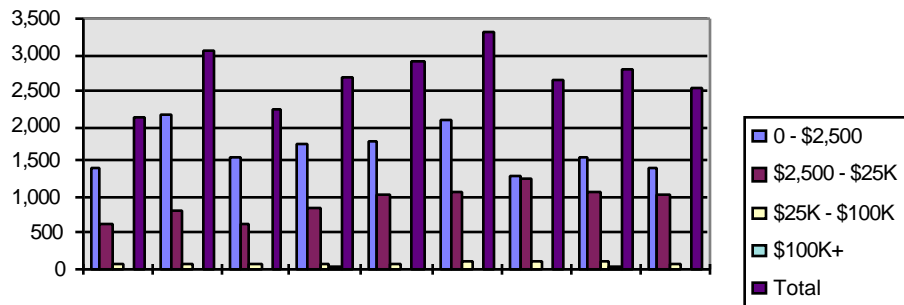
Current DoD EDI Transactions

Statistics supporting DoD electronic commerce/ electronic data interchange (EC/EDI) transactions collected by FACNET are noted in Figures E-1 and E-2 with transaction sets defined in Table E-1 and Service-specific statistics provided in Table E-2. System specific EC/EDI transactions are not currently being collected by FACNET. Input from each Service regarding EDI transaction statistics is defined separately. Statistics between FACNET and the Services are inconsistent due to the fact that not all EDI transactions are accomplished via FACNET. An official data call is required to allow more definitive input with regard to system specific EC/EDI transactions and trends in the use of EC/EDI. Table E-1 provides a summary of commonly used transaction sets.

Table E-1 Transaction Set Definition

Document Type	Transaction Set
Progress Payment	810
Application Advice	824
Trading Partner Profile	836
Procurement Notice	838
Request for Quotation	840
Purchase Order	850
Purchase Order Change Request	860

DoD 850 Transaction Reports (#)



Oct-96 Nov-96 Dec-96 Jan-97 Feb-97 Mar-97 Apr-97 May-97 Jun-97

Figure E-1 DoD Monthly Transaction Volume

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DoD 850 Transaction Report

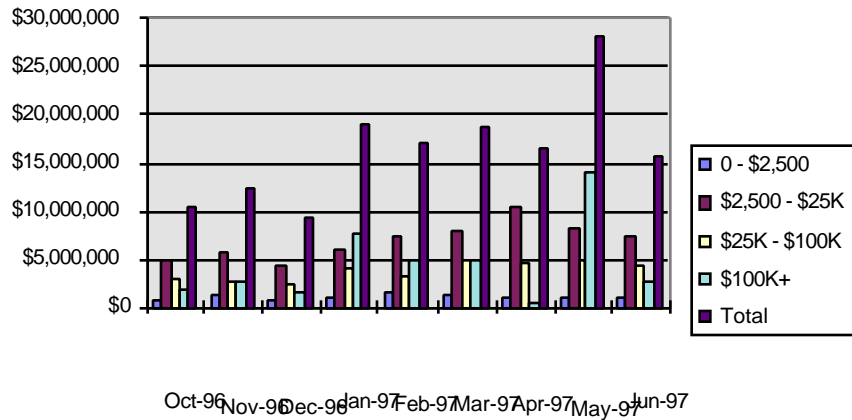


Figure E-2 DoD Monthly Transaction (\$)

Table E-2 DoD FACNET 850 Transactions

	DoD Transaction (Oct 96 - Jun 97)				
	0 - \$2,500	\$2,500 - \$25K	\$25K - \$100K	> \$100K	850 Total
DoD	15007	8421	750	90	24268
Air Force	7841	2445	188	5	10479
Army	2490	4461	387	21	7359
Navy	4572	1307	122	62	6063
Other	104	208	53	2	367

Current Status of DLA EC/EDI Transactions Sets

During FY96, 70% of DLA contracting activity was conducted using EC/EDI transactions. This activity accounts for 45% of all dollars spent by DLA contracting sites.

Current Status of Army EC/EDI Transactions Sets

Two major procurement systems PADDS and SAACONS support Army EC/EDI transaction sets as defined below:

PADDS: 3050 - 850 and 860 Transaction Sets
 100 % of awards are electronically sent to DFAS via the 850.
 100% of award and modification files are sent electronically to DFAS via EDA.

SAACONS: Approximately 20,000 transaction sets (3010

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SAACONS 2.6 836, 838, 840, 843 and 850) are processed monthly by SAACONS. The planned conversion to 3010 Government Rework Sets in Oct 97 will add the 824 and 860 transactions. SAACONS sites will never go to 100 % of all actions via EC until replaced by the software available from the Procurement Defense Desktop of SPS (PD2) using the 3050 or higher Implementation Conventions for major contracts.

Traffic to DFAS for obligation (850) and modification (860) records and Electronic Document Access (EDA) posting will be 100 % when all sites convert to the Electronic Commerce Processing Network starting in October 1997.

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Current Status of Navy EC/EDI Transactions Sets

NAVY EDI TRANSACTIONS (FY 97 YEAR-TO-DATE)

System	EDI Transaction Sets				Amount \$
	840'S	843'S	850'S	Combine d	
APADE	3,265	10,250	8,010	21,525	\$ 14,898,651
ITIMP	5,536	200	2,607	8,343	\$279,347,412
SACONS FEDERAL	315	2,161	192	2,668	\$ 3,375,789
Total	<u>9,116</u>	<u>12,611</u>	<u>10,809</u>	<u>32,536</u>	<u>\$297,621,852</u>

Current Status of Air Force EC/EDI Transactions Sets

The Base Contracting Automated System (BCAS) accounts for over 90% of Air Force contracting actions. Air Force BCAS users have the capability to generate EDI/FACNET transactions using the Menu Assisted Data Entry System (MADES).

Currently, BCAS does electronically transmit award data to IAPS (whether awarded via FACNET or not). The Air Force has recently completed BCAS/EDA testing and is evaluating the test issues and results. The Air Force is continuing joint testing with DFAS on populating the MOCAS database using 850 transactions for major weapon system contract awards.

Current Status of DFAS EC/EDI Transactions Sets

Currently several contract writing systems (PADDS, DPAC, POPS) are transmitting 850s to MOCAS production data base and several others (AMIS, APADE, ITIMP) are in the testing phase. The major accounting systems have the capability to receive the EDI 850/860 transactions. MOCAS is currently accepting electronic commercial invoices (810C), progress payment requests (810P), and public vouchers (810V). STARS One Pay accepts Air Freight invoices (110), commercial invoices (810C), and progress payment requests (810P). SAMMS is accepting commercial invoices (810C) electronically.

Other EC/EDI initiatives include; Garnishments, Travel, IMPAC, Grants, Medical Logistics, Commitments, and Receipts.

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Figures E-3 through E-7 provide a history of the MOCAS vendor participation for invoicing and electronic contracts.

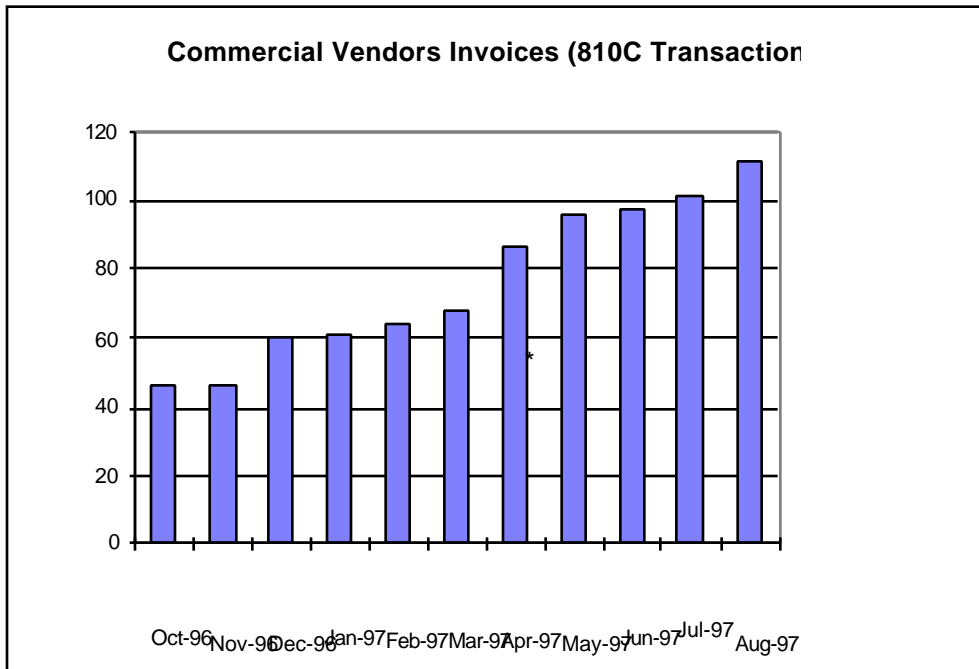


Figure E-3 Vendors Submitting Commercial Invoices to MOCAS

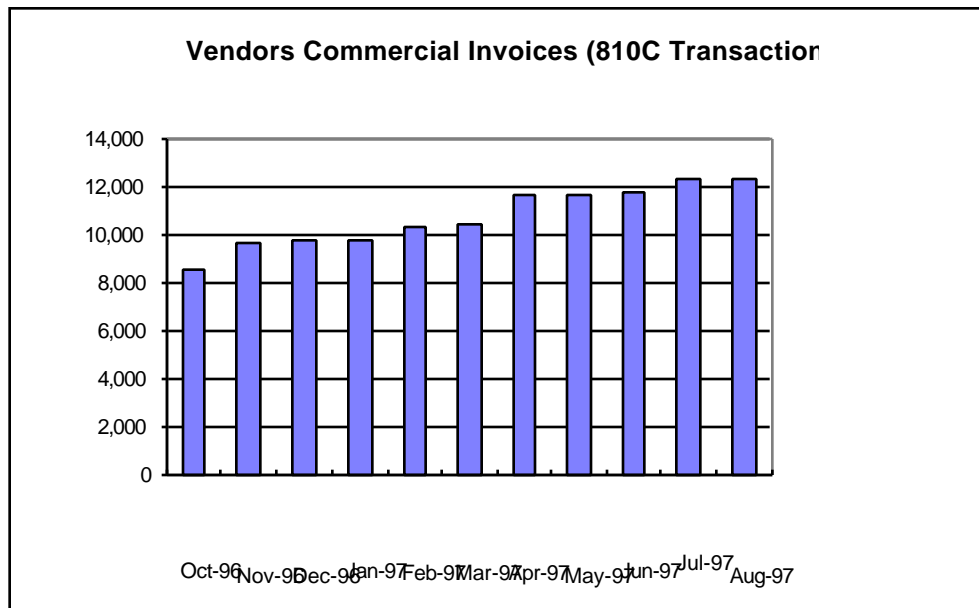


Figure E-4 Quantity Commercial Invoices Submitted to MOCAS

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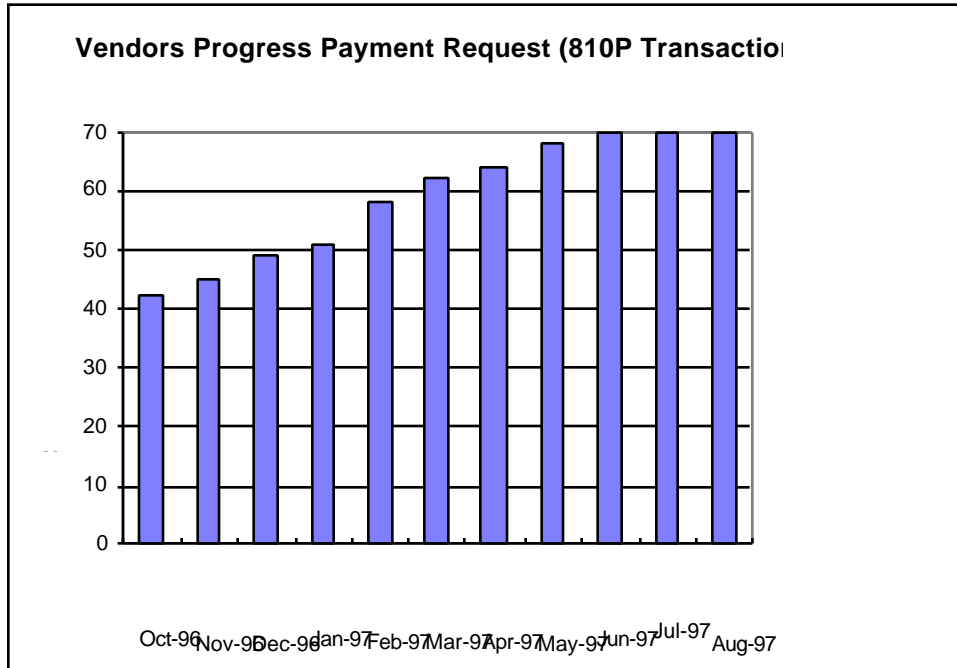


Figure E-5 Vendor Electronic Progress Payment Request to MOCAS

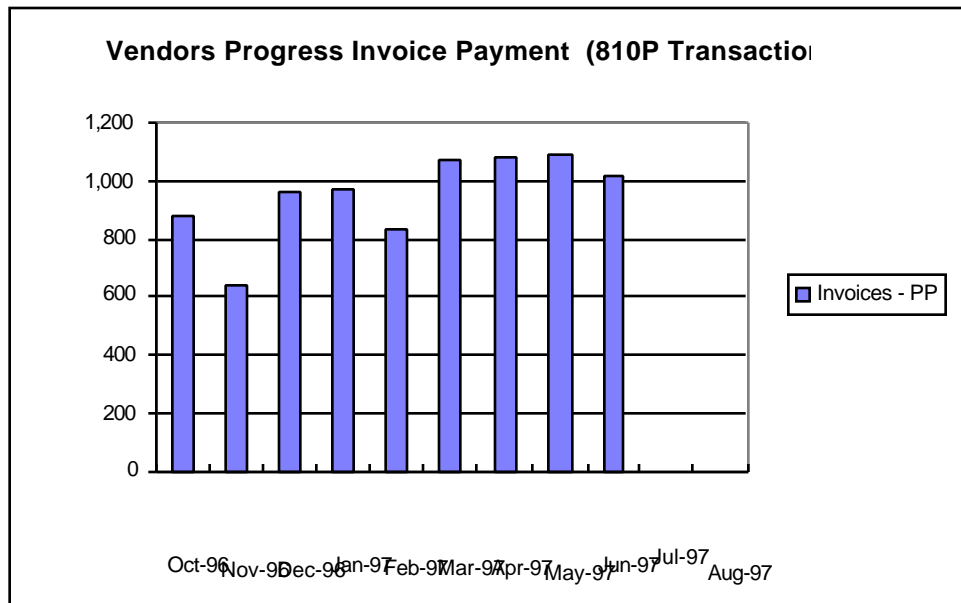


Figure E-6 Quantity Vendor Electronic Progress Payment Request to MOCAS

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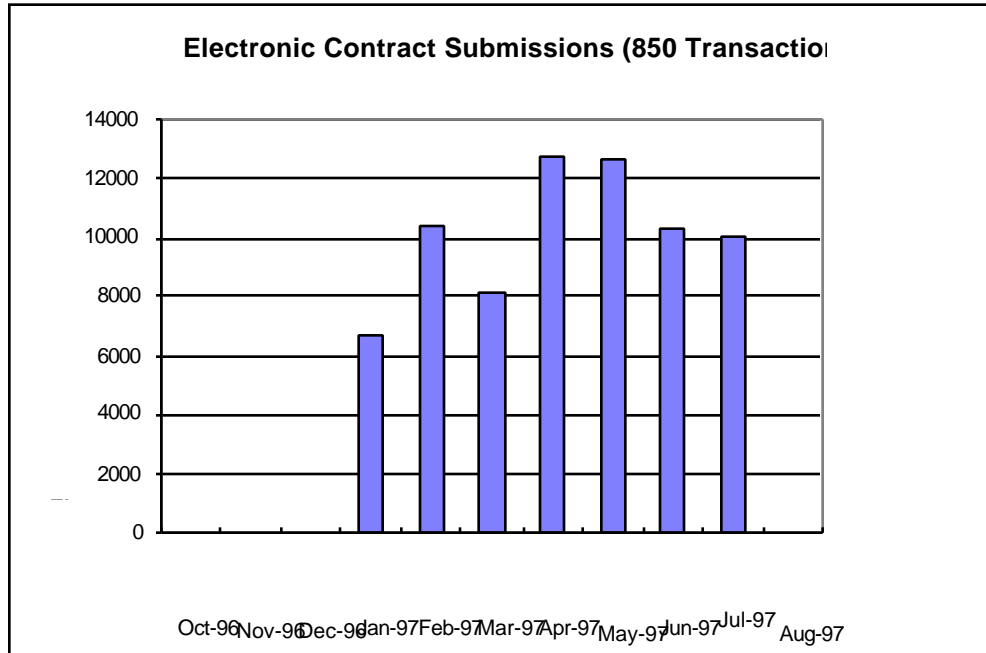


Figure E-7 Quantity of Electronic Contract Submission to MOCAS

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Preliminary Cost and Associated Technical Rationale

This following provides preliminary costs for a paper-free contracting process the year 2000. Detailed technical assessment must be conducted to identify and refine resource and technical requirements required for implementation.

Interfaces	\$ 120M
SPS	\$ 300M
Digital Output	\$ 2.5M
Security	\$ 100M
Form Automation	\$ 35M
Digital Contracts	\$ 150M
Shared Data Warehouse	\$ 10M
Electronic Signature	\$ 2.1M
<u>Web Based Efforts</u>	<u>\$ 2.5M</u>
Total	\$ 722.1M

Assume 2300 User Sites/39 Majors