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Contracting without Paper

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CONTRACTING WITHOUT PAPER

by

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ABSTRACT

This paper examines the contract simplification effort currently undergoing review and modification in the Department of the Army. This effort has led the author to explore the state of the art of contracting and what changes will have to be made to methods of contracting to keep pace with the commercial marketplace in the next decade.

The computer is becoming as common as the telephone in every office. The use of the computer seems to be unlimited, ranging from games to sending and receiving electronic mail and transfer of large sums of money to and between bank accounts. This paper provides what the author perceives is the step-by-step advancement needed by the Government in the use of computers to transition from formal paper contracts transported by mail to the paperless contracting transported by telephone lines or satellite to contractors and between contractors and Government agencies.

This paper explains the author's concept of the various elements of paperless contract evolution which must be achieved to allow the release of solicitations via computers, contractor submission of bids via computers, and the eventual award of contracts by the same means.

DISCLAIMER

The views expressed in this paper are those of the author and do not necessarily reflect the official policy or position of the Department of the Army

or Department of Defense.

BACKGROUND

There are those in the computer service business who say "someday" is "today."⁽¹⁾ They offer the service that would allow, with the push of just a few keys, knowledge of the latest advancements in home management and nutrition; recent business mergers; high school sports scores; information on 9,000 securities which is updated each day and the ability to scan the pages of the ultimate electronic catalog and pick and choose from over 30,000 items--from cookware to clothing--available at discounted prices.

Companies have now implemented electronic mail technology for sending and receiving electronic messages. Electronic mail is a person-to-person message delivery system allowing individuals to privately communicate with other people as cheaply as the cost of a phone call and faster than the postal or other express delivery services. What is received is a message on the computer monitor which can be viewed on a terminal screen, printed on paper, or stored for future reference.

One computer service advertises that almost any brand of personal computer or terminal and many communicating word processors can connect with their computer service. They have software and modems that unify and make compatible the systems. This system is available now in over 300 cities in the United States and Canada and is connected with and through a local phone call to a con-

necting number and then transmitted by long distance lines or satellite transmission to the data base or destination.

We are living in an age when so many things are governed, operated, and maintained by computers. General Motors and other automobile manufacturers have installed computers in their cars that monitor and regulate the amount of unused fuel that is being exhausted out the tail pipe. The computer adjusts the fuel mixture by a signal sent by the sensor to the carburetor or the fuel injection system. This is one of the ways in which fuel savings is being accomplished in each new model year as required by the Federal Government. The home computers of the future, the technology of which is available now, will change the temperature in the room at a set time or by a person entering or leaving a room. There will be heat sensing devices in the room which will calculate the necessary amount of heat that will be produced and required or the amount of cooling required to maintain a temperature level that has been established by the homeowner. The level will be fed into a central computer which controls the entire heating and cooling system of the house.

Computers are expected to change the way we receive our news in the next 5 to 10 years. In fact, American Telephone and Telegraph is preparing for this electronic newspaper era. The amount of news and backup material which will be available would boggle the average person's mind.(2) We can already hook up to a computer that can access research banks of data for just a few dollars per hour. The British Post Office System has been experimenting with an electronic information system since 1970 that is capable of providing its subscribers with 150,000 pages of information. This system allows the subscribers to get their daily news, check train schedules, look at readings from several libraries, take televised university courses, see a list of Guinness records, look at a guide to recommended restaurants, and shop. There is a similar system operated by Dow Jones that has been started in Dallas, Texas, and operates throughout the country. This background is provided to show that the extent of the use of computers is truly unlimited and that planning is needed now to transition smoothly from one stage to the next so that we are not

always reacting in a panic.

In the business world, there will be other great strides; computers will sense and perform tasks to ensure that society is comfortable, business is conducted efficiently, and profits are maintained at required levels. What I plan to discuss in this paper is the direction in which Government procurement is evolving and the plans which must be made to permit an orderly evolution into a paperless society.

CONTRACT SIMPLIFICATION

The size of the Government contract has grown over the years. Many of the things causing this growth have stemmed from socioeconomic considerations and pronouncements of Congress and the White House. For years, contractors have complained about the complexity of Government solicitations, contracts, and purchase orders. When Frank Carlucci became the Deputy Secretary of Defense, he immediately initiated directives to make meaningful changes. One of the changes was to develop a contract which would satisfy the desire of industry for simple contracts. The first aim was to reduce the number of pages of the contracts. Many of the problems which were cited by industry emerged from the fact that potential offerors had to read through many pages of the solicitation before they could determine what items the Government wanted to purchase and when the Government wanted those items delivered.

The small businessmen were most concerned because they did not have the large staffs of experts to help in proposal preparation who were available to their big business competitors. Government contractors in the large business community also complained about the size of the contracts, but if they were substantially involved with the Government, the cost of reading and processing these contracts was always recovered in the cost which they billed the Government. The small businessmen did not always have this luxury. Also, they were most often stuck in the fixed price contract arena. Some of the small businessmen who did not have many dealings with the Government were scared away from Government business by the sheer size of the solicitation, let alone the complexity of the solicitation, purchase order, etc.

CONTRACT SIMPLIFICATION \$25,000 TO \$500,000

The management effort initiated by Deputy Secretary Frank Carlucci covered a host of areas. One of these areas was the simplification of the Government's method of issuing fixed price contracts up to \$500,000. This was considered the area of the largest volume of business and where the most savings might accrue.

Mr. Carlucci decided to establish a steering committee to take the necessary action to review this area of contracting effort. Millions of contracts have grown into administrative monsters. The committee was to develop and test some simplified contract forms and to refine them during the prototype testing period. The results of the prototype development and testing were reviewed and the forms further refined. Refined test forms have been widely tested in DOD and might be adopted. This decision will eventually be made by the Deputy Under Secretary of Defense, Research and Engineering (Acquisition Management). Mr. Carlucci provided a waiver to all regulations during the testing period, and advised the development group that they should take risks even if their decisions might lead to litigation. The key was to make an improvement. The only limitation was to develop forms and supporting provisions which were not prohibited by law. Later, if the need was justified and the elimination of the restrictive law would permit simplification of solicitations and contracts, an effort to change the law would be made. It was planned to change the Federal Acquisition Regulation based upon the results of the study and the prototype tests.

Early in the planning on this project, many areas were uncovered which would allow for the elimination of great quantities of paper and result in the savings of thousands of dollars in postage alone for each Government contracting activity. Added to this postage savings would be the greater costs of the paper, printing, storage, and handling which could be saved with the reduction of pages in each contract document. The real and immediate savings will be substantial, but there is the indirect savings of fewer personnel needed to process these deleted pages. Work is still progressing on this effort but under another study.

Another idea which holds great promise

is the deletion of the certifications and representations which are required of the contractors bidding on Government procurement. The concept is to have the contractor complete these representations and certifications once a year when the company updates the Bidders' Mailing List applications. With the removal of these additional items from the bids/proposals, another page or two may be deleted from the solicitations, which also contributes to the total cost savings realized by both the Government and the Contractor. It was during this phase of the study that the idea was proposed that perhaps contractors could submit this type of data once a year to a central place in the Government instead of to each purchasing office. The purchasing office could validate the contractor's registration, as needed, on some form of computer network or by telephone. The author then got the idea that maybe the time had come to plan for the future of contracting with respect to computers. Paperless contracting should be the next formal stage of contract simplification for the Department of Defense.

WHAT IS AVAILABLE

The US Army readiness commands have already moved to automation in the development of contract documents. The system used is called the Procurement Automated Data and Document System (PADDS). PADDS is a procurement designed and distributed processing system that utilizes remote terminals placed in the user's business area (functional procurement working area) and a mini-computer to generate printed solicitations, contract instruments, amendments to solicitations, and contract modifications. This system will also generate Individual Procurement Action Reports (IPARs), DD Forms 350, and other management reports. It also provides solicitations, delivery orders, and contracts upon command. These documents are developed by the contracting personnel who identify the type of contract or solicitation which will be issued and any special clauses and provisions which may be required. Most of the clerical work is eliminated, simply because all the necessary clauses and provisions have been loaded into the system in advance, and with a few commands, the proper contract/solicitation clauses are printed. These printed documents are then reviewed and issued

by the purchasing office. When an offer has been determined to be the "low, responsive and responsible offer," a few additional commands along with the contractor's identification are fed into the system and a contract is issued for execution by the contracting officer. This automated system can be adapted, with some modification, to the issuance of paperless contracts and solicitations in the system that is envisioned in this paper. The current PADDS system will soon be upgraded by the Integrated Procurement System (IPS). The objective of the IPS program is to place computer terminals on all contract specialists' desks. The contract specialists will be able to input via their terminals data required to issue a solicitation.

FIRST STEP

The first step that must be taken to expand current planning will be the development of a file of bidders, in a centralized location, with all the mailing list applications and the representations and certifications stored in a computer memory bank which is accessible to all purchasing offices in the Department of Defense. This data could be located at some defense activity identified for the purpose of maintaining these files. This would reduce the number of places to which contractors have to submit their Bidders' Mailing List Applications (SF 129). The contractors therein identify the type of item(s) which they are interested in supplying the Government agencies, and this SF 129 would be placed in the central bidders' mailing list files. These files could be queried by Government agencies utilizing Standard Industrial Codes (SIC) for the purpose of identifying the products needed. When developing a bidders' list, the agencies would be able to obtain an up-to-date list of bidders on command. Of course, this would eventually be eliminated, we hope, when the contractors would be able to identify what the Government was purchasing on their computers each day.

COMPUTER ACCESSED COMMERCE BUSINESS DAILY

The author envisioned the next step would be to have all procurement notices issued by Government contracting offices to the Commerce Business Daily available to contractors on computer terminals

located in their sales offices and business offices. The contractor would be able to call to his screen the items which are being purchased by the Government on any given day. He would be able to see all the many items for which the Government is soliciting, or for which the Government is awarding contracts. He could direct his inquiry only to the items which he was capable of producing or supplying as identified by the SICs. The contractor would enter the desired SIC into his terminal, and then, upon his screen would appear the types of items which are being solicited by the various agencies. As was noted in the opening statement, people can already shop by computers, so this is not a far-fetched concept. With the proliferation of computers that is expected within the next 2 to 3 years, and with the easy access to computer information via telephone lines and data centers, even the smallest of contractors will be able to utilize computers in their facilities. Many computers are available on the market which are capable of performing the tasks outlined in this paper for under \$5,000 and the prices are being reduced at a rapid pace. The administrator of the Small Business Fifth Region, located in Chicago, Illinois has indicated that he would promote the paperless contracting concept with local Chambers of Commerce in his region when the concept comes close to a reality. He has proposed that the Chamber of Commerce should purchase computer equipment for use by contractors unable to afford all of the necessary elements to allow contracting and soliciting by computers.

SOLICITATIONS AND CONTRACTS ON COMPUTER SCREENS

The next logical step for the contractor, after identifying the solicitation on which he has an interest, is to direct a copy of that solicitation be shown on his computer screen. Today's computer technology will permit this immediately. The PADDS system, as will be upgraded by IPS, will be able to transmit this information from its data base to a central solicitation data base in the purchasing office which could be accessed from a hookup with the Commerce Business Daily. The contractor could then view all the printed requirements of the contract/solicitation on call. This would include the description of the item, delivery schedule, quality

assurance provisions, and some of the technical requirements, special provisions, and clauses applicable to the solicitation/contract.

To complement this movement toward paperless contracting, the next phase must be for the Government engineering community to acquire drawings of items in research and development stages which are suitable for entry into computers for storage and future revisions. This is not a Buck Rogers in the 25th century concept, but a realistic view of what DOD contracting must evolve toward very soon. Contractors are already designing and making computer drawings. These drawings are digitized drawings which can be transmitted via telephone lines to a terminal capable of receiving them and projecting them on a screen. They can even be printed on the computer printing systems for the contractor to view in paper form. There are machines capable of scanning existing drawings, converting them to digits, and storing them in computer data bases. Then, when an interested contractor calls upon his screen a solicitation from the HQ, US Army Armament, Munitions and Chemical Command, for example, a machine gun bolt, the entire solicitation would appear on his screen page-by-page, including the necessary drawings and the entire text of any specification or quality assurance special provisions. The contractor could, if he had the necessary printing equipment, print in hard copy the entire solicitation, drawings, and specifications, for his use in obtaining subcontract bids. He could also record the appropriate drawings and specifications on a disc for transmission to his subcontractors by computer. Again, no paper would have to flow, just computer-generated data transmitted between the parties of the eventual contractual arrangement, the Government, a prime and the prime's subcontractors, and suppliers network. The next logical step of this great process is the bidding process.

PAPERLESS BIDS

After the contractor has obtained all the necessary quotations from his subcontractor and supplier network, he will develop a price for this item which the Government is soliciting. The contractor will then, via his computer, submit his proposal to the Government data base. Adequate security will have

been developed in the system to preclude any contractor from knowing what any other contractor has proposed. A form of sealed bid process will exist. The contracting officer will, on the date on which bids are to be opened, unlock the proposal file, interrogate the data base, and print or display the proposals that have been submitted by contractors. These proposals can be ranked by the computer based on price, if that is the method of selection, and the low offeror will be identified. The contracting officer can then enter that contractor's identification information into the computer to determine if the Government has identified this contractor as a prior supplier. The data in the system will specify if the contractor currently has contracts with any Government agencies, the delivery status of those contracts, information as to the production capacity and capability of the contractor, financial data based upon input into the system from Dun and Bradstreet, unliquidated progress payments, etc. The data base should be adequate in most cases for the contracting officer to determine if the contractor is a viable contractor without requiring the Defense Contract Administration Services (DCAS) office to perform a preaward survey. If all the data on the contractor is positive, a quick award could be made by the contracting officer. The contracting officer would key into his computer the award notification to the contractor and the appropriate accounting data for the obligation of funds on the contract, and the contract would be awarded. From the time that the bids were reviewed by the contracting officer to the actual instant of award, the duration of time could be less than an hour.

It would take longer for those contractors who had not done business with the Government. In those cases, the contracting officer would immediately contact the necessary DCAS office in the contractor's area and ask for a survey of his facility. This could take several days depending on information on hand at the DCAS office and the scope of review requested. The data would then be transmitted back to the purchasing office, and the contracting officer would be in a position to make a timely award on the computer to the contractor. This would be much in the same fashion as electronic mail is used today between company offices and between Government offices.

ADVANCED PLANNING MUST BEGIN NOW

As our society moves toward more and more electronic mail, there will be increased pressure to convert to computer generated and transmitted solicitations and contracts. Planning must begin now, and it will have to be throughout the entire Department of Defense and all of Government. If this system is to be in place and functioning by the year 1994, the necessary programming and budgeting for this system must be initiated next year. Computer-generated solicitations and contracts and the issuing of these documents will require comprehensive planning. This concept may not be practical for all procurements in the Government, but it is practical and possible for repair parts, normal supplies, and some services, which comprise the largest number of DOD contracting actions. For research, development, and test procurements, a modified system would be used. The computer equipment which will be used for the repair parts, supplies, and services will, I am sure, be usable for research and development procurements.

RECOMMENDATIONS

The Secretary of Defense and the civilian agency heads must appoint a special task group to develop the paperless contracting concept. Subcommittees of this task group should explore all the necessary requirements that could be developed into this concept, and also, coordinate with industry, Small Business Administration, and the General Services Administration to ensure that this system would be totally compatible for all Government procurements. This does not mean that the individual agencies will utilize the same type of equipment, but rather, that the systems which they possess or will purchase will interface with one another. Further, the systems which are available in the private sector can be interfaced with the Government equipment to preclude any complaint by industry that it cannot participate fully and indiscriminately in the procurements being made by the Government via computers.

This is not a concept that will push the existing state of the art in computer technology. In fact, with the recent changes in computer hardware and programs and the advances being made daily, this concept could have been in

place and working by the year 1989 if the Government had more advanced planning, to include more inter- and intra-service planning for this type of change.

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