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STATEMENT OF

CHARLES A. BOWSHER

COMPTROLLER GENERAL OF

THE UNITED STATES

BEFORE THE

SUBCOMMITTEE ON LEGISLATION AND NATIONAL SECURITY

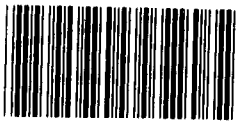
HOUSE COMMITTEE ON GOVERNMENT OPERATIONS

ON SOCIAL SECURITY ADMINISTRATION'S

MANAGEMENT OF ITS CONTRACTS

TO MODERNIZE ITS DATA

COMMUNICATIONS SYSTEM



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MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE:

WE ARE PLEASED TO BE HERE TODAY TO DISCUSS THE SOCIAL SECURITY ADMINISTRATION'S COMMUNICATIONS CONTRACTS WITH THE PARADYNE CORPORATION. AS YOU ARE AWARE, FEDERAL AGENCIES ARE BECOMING INCREASINGLY DEPENDENT UPON COMPUTER AND RELATED COMMUNICATIONS TECHNOLOGY TO CARRY OUT THEIR MISSIONS. IN THE COMING YEARS, THE FEDERAL GOVERNMENT WILL SPEND MANY BILLIONS OF DOLLARS TO OBTAIN SUCH TECHNOLOGY. WHAT WE HAVE OBSERVED DURING OUR REVIEW OF SSA'S ACQUISITION OF ITS COMMUNICATIONS SYSTEM SHOULD SERVE AS A VALUABLE LESSON FOR BOTH AGENCIES AND CONTRACTORS.

IN OUR JULY 9, 1984 REPORT TO THE CHAIRMAN AND IN TESTIMONY PROVIDED ON AUGUST 2, 1984, WE HIGHLIGHTED PARTICULAR WEAKNESSES IN SSA'S MANAGEMENT AND ORGANIZATIONAL STRUCTURE WHICH CONTRIBUTED TO THE AGENCY ENCOUNTERING SIGNIFICANT DEFICIENCIES IN KEY PHASES OF ITS CONTRACT WITH PARADYNE AND WHICH PRESENT A THREAT TO THE INTEGRITY OF UPCOMING SYSTEM PROCUREMENTS.

MY TESTIMONY TODAY FOCUSES ON PARTICULAR ASPECTS OF PARADYNE'S ROLE IN THIS PROCUREMENT AND IS IN RESPONSE TO THE CHAIRMAN'S AUGUST 8, 1984 REQUEST THAT GAO PROVIDE THE SUBCOMMITTEE WITH THE FOLLOWING:

(1) AN IDENTIFICATION AND COMPARISON OF THE EQUIPMENT PARADYNE REPRESENTED TO SSA IN ITS PROPOSAL TO THAT WHICH PARADYNE DEMONSTRATED AND DELIVERED TO THE AGENCY,

(2) AN ASSESSMENT OF THE PERFORMANCE OF PARADYNE'S SYSTEM FROM THE TIME OF INSTALLATION TO THE PRESENT, INCLUDING ITS IMPACT ON SSA'S ABILITY TO PERFORM ITS MISSION,

(3) AN ASSESSMENT OF THE ACCURACY AND COMPLETENESS OF MITRE'S REPORT ON PARADYNE'S PERFORMANCE AND

(4) A DETERMINATION OF WHETHER SSA OFFICIALS WERE AWARE THAT PROTOTYPE SYSTEMS USING ANOTHER MANUFACTURER'S EQUIPMENT AND AN ENCRYPTION DEVICE CONTAINING NOTHING MORE THAN BLINKING LIGHTS WERE DEMONSTRATED BY PARADYNE PRIOR TO CONTRACT AWARD.

A COMPLETE DISCUSSION OF THE INFORMATION WHICH I WILL SUMMARIZE THIS MORNING WAS PROVIDED TO THE COMMITTEE IN A SECOND GAO REPORT ON THIS SUBJECT DATED AUGUST 27, 1984.

I WOULD LIKE TO BEGIN WITH THE BASIC PREMISE UNDER WHICH SSA WAS OPERATING WHEN IT ISSUED THE REQUEST FOR PROPOSALS (RFP).

SSA BASED ITS REQUEST FOR PROPOSAL ON THE PREMISE THAT ITS REQUIREMENTS COULD BE GENERALLY SATISFIED BY EXISTING

"OFF-THE-SHELF" BUSINESS SYSTEMS EQUIPMENT WHICH WOULD NEED RELATIVELY MINOR ENHANCEMENTS TO MEET SSA'S SPECIFIC NEEDS. IN ITS RFP, THE AGENCY DEFINED THE MAJOR SUB-SYSTEMS IT WOULD NEED (SUCH AS CONTROLLERS, KEYBOARDS, PRINTERS, ENCRYPTORS, ETC.). IT REQUIRED BIDDERS TO PROPOSE COMBINATIONS OF SUCH SUB-SYSTEMS THAT WOULD WORK TOGETHER AS A COMPLETE SYSTEM. IT PERMITTED THE BIDDER TO INCLUDE, AS PART OF ITS PROPOSED CONFIGURATION, AVAILABLE SUB-SYSTEMS THAT WERE MANUFACTURED BY OTHER FIRMS.

SSA PLACED A PREMIUM ON THE NEED FOR ITS NEW SYSTEM TO HAVE A HIGH RELIABILITY FROM DAY ONE. TO HELP ASSURE THIS, THEY REQUIRED THAT ANY PROPOSED SUB-SYSTEM BE A PART OF A MANUFACTURER'S CURRENT PRODUCT LINE AND AVAILABLE TO THE GENERAL USER. PROTOTYPES WERE EXPRESSLY PROHIBITED. AS AN ADDITIONAL SAFEGUARD, SSA REQUIRED THAT EACH BIDDER DEMONSTRATE THE ACTUAL EQUIPMENT PROPOSED PRIOR TO THE AGENCY AWARDING THE CONTRACT.

ONE EXCEPTION, HOWEVER, TO THE REQUIREMENT OF DEMONSTRATING THE ACTUAL EQUIPMENT WAS PERMITTED. IN THE EVENT THAT A SUB-SYSTEM IN THE EXISTING PRODUCT LINE WOULD NEED MODIFICATIONS OR ENHANCEMENTS TO MEET SSA'S REQUIREMENTS, THE BIDDER, WITH GOVERNMENT APPROVAL, WAS PERMITTED TO IDENTIFY THE INTENDED CHANGES TO THE EXISTING PRODUCT AND SHOW, IN WRITING, THAT THE CHANGES WOULD RESULT IN THE SATISFACTION OF THE REQUIREMENT.

IN ITS RESPONSE TO SSA'S RFP, PARADYNE PROVIDED A CONFIG-URATION MADE UP OF BOTH SUB-SYSTEMS FROM THE PRODUCT LINES OF

OTHER MANUFACTURERS (E.G., THE PRINTERS, CARD READERS, ETC.) AND SUB-SYSTEMS FROM ITS OWN PRODUCT LINE - SPECIFICALLY THE CONTROLLER AND THE ENCRYPTOR.

IN SPITE OF THE FACT THAT IN ITS PROPOSAL PARADYNE REPRESENTED BOTH THE CONTROLLER AND ENCRYPTOR TO BE ALREADY IN EXISTENCE AND OPERATIONAL, PARADYNE IN FACT DID NOT HAVE EITHER A FUNCTIONING CONTROLLER OR ENCRYPTOR IN ITS PRODUCT LINE AND AVAILABLE TO THE GENERAL USER, AS REQUIRED BY THE RFP.

PARADYNE UNDERTOOK TO DESIGN AND CONSTRUCT A CONTROLLER AND ENCRYPTOR MAKING USE OF BASIC INTEGRATED CIRCUIT CHIPS, SOFTWARE, ETC. THAT IT BELIEVED WERE AVAILABLE FROM SUPPLIERS, OR (IN THE CASE OF THE OPERATING SYSTEM SOFTWARE) COULD BE MADE AVAILABLE IN TIME FOR THE OPERATIONAL CAPABILITY DEMONSTRATION (OCD). THIS APPROACH REQUIRED CONSIDERABLE ENGINEERING EFFORT AND SOFTWARE DEVELOPMENT ON THE PART OF PARADYNE AND ITS SUPPLIERS.

PARADYNE CONTENDS THAT ITS APPROACH WAS WITHIN THE TERMS OF THE RFP IN THE SENSE THAT THE BASIC HARDWARE AND SOFTWARE COMPONENTS USED TO CONSTRUCT THESE SUB-SYSTEMS WERE AVAILABLE FROM IT'S SUPPLIERS AT THE TIME OF THE SOLICITATION.

WE DISAGREE WITH THIS CONTENTION. EVEN IF ALL OF THE CONSTITUENT COMPONENTS HAD BEEN AVAILABLE, THE SUB-SYSTEMS WHICH

WOULD RESULT FROM PARADYNE'S APPROACH WOULD HAVE TO BE CONSIDERED TO BE "PROTOTYPES". THIS IS BECAUSE OF THE SIGNIFICANT ENGINEERING AND SOFTWARE EFFORT REQUIRED TO CONSTRUCT THEM FROM THE CONSTITUTENT COMPONENTS. IN FACT, A CRITICAL COMPONENT, NAMELY THE SOFTWARE OPERATING SYSTEM USED TO RUN THE CONTROLLER, WAS NOT AVAILABLE IN A SUITABLE FORM WHEN PARADYNE RESPONDED TO THE RFP. IN THIS REGARD, A CONSIDERABLE AMOUNT OF HIGHLY SKILLED AND COMPLEX WORK WAS NEEDED TO PRODUCE A VERSION OF THE OPERATING SYSTEM WHICH WOULD BE COMPATIBLE WITH PARADYNE'S DESIGN.

AS I HAVE NOTED, IN AUGUST 1980, PARADYNE BID THE CONTROLLER AND ENCRYPTOR AS THOUGH THEY WERE ALREADY IN EXISTENCE, APPARENTLY BELIEVING THAT BY THE TIME OF THE OCD IT COULD PERFORM THE NECESSARY ENGINEERING AND SOFTWARE WORK TO CONSTRUCT A CONTROLLER AND ENCRYPTOR TO USE AT THE OCD. APPARENTLY, THE ENGINEERING EFFORT WAS CONSIDERABLY GREATER THAN PARADYNE HAD ANTICIPATED AND IT WAS NOT COMPLETED BY THE TIME THE OCD WAS HELD IN DECEMBER 1980.

WE COME NOW TO WHAT ACTUALLY OCCURRED DURING PARADYNE'S OCD.

PARADYNE DID HAVE A DEVICE REFERRED TO AS AN ENCRYPTOR AT THE OCD. ALTHOUGH THERE IS CONFLICTING TESTIMONY AS TO WHETHER PARADYNE REPRESENTED THE DEVICE AS BEING OPERATIONAL, WE FOUND

NO EVIDENCE THAT PARADYNE ACTUALLY EXERCISED ANY ENCRYPTION DEVICE DURING THE OCD. IT APPEARS THAT SSA ACCEPTED A PARADYNE TECHNICAL PRESENTATION OF THE DEVICE AS SATISFYING THE OCD REQUIREMENTS.

THE SITUATION WITH REGARD TO THE CONTROLLER, HOWEVER, IS MARKEDLY DIFFERENT. TO PASS THE OCD, PARADYNE DEMONSTRATED A CONTROLLER WHICH WAS BASED ON HARDWARE AND SOFTWARE COMPONENTS THAT WERE SUBSTANTIVELY DIFFERENT FROM WHAT IT HAD PROPOSED. WE FOUND NO EVIDENCE THAT PARADYNE HAD INFORMED ANY SSA OFFICIAL THAT IT WAS DEMONSTRATING EQUIPMENT DIFFERENT FROM WHAT IT HAD PROPOSED. HAD PARADYNE INFORMED SSA OFFICIALS OF THE SUBSTITUTION, IT WOULD HAVE BEEN CLEAR TO SSA THAT PARADYNE WAS PROPOSING A "PROTOTYPE" CONTROLLER CONTRARY TO THE TERMS OF THE RFP. AT THAT POINT SSA SHOULD HAVE ELIMINATED PARADYNE'S PROPOSAL FROM CONSIDERATION.

FURTHERMORE, BASED ON THE MATERIAL WE REVIEWED, WE BELIEVE THAT THE CONTROLLER SUB-SYSTEM WHICH PARADYNE HAD REPRESENTED TO SSA AS EXISTING AND FULLY DEVELOPED IN ITS AUGUST 1980 PROPOSAL WAS NOT, IN FACT, FUNCTIONING AS A SUB-SYSTEM UNTIL SOMETIME AFTER CONTRACT AWARD.

AT THE ACCEPTANCE TEST IN MAY 1981, PARADYNE USED THE NEWLY INTEGRATED CONTROLLER COMPONENTS AND SOFTWARE. THESE DISPLAYED SERIOUS DEFECTS DURING TESTING WHICH CARRIED OVER INTO FIELD OFFICE OPERATIONS.

FOLLOWING SSA'S ACCEPTANCE OF THE PARADYNE TERMINALS, SYSTEM PERFORMANCE PROBLEMS CONTINUED FOR AT LEAST TWO YEARS, IMPAIRING SERVICE TO THE PUBLIC. IN ATTEMPTING TO CORRECT THESE PROBLEMS, PARADYNE MADE NUMEROUS MODIFICATIONS TO THE TERMINALS' HARDWARE AND SOFTWARE RESULTING IN 21 DIFFERENT VERSIONS OF THE SYSTEM BEING INSTALLED WITHIN THE FIRST YEAR.

AS PART OF ITS MODERNIZATION PROGRAM, SSA HAD PLANNED TO ENHANCE THE PARADYNE TERMINALS TO PROVIDE LOCAL PROCESSING CAPABILITIES. IN 1983, SSA ABANDONED THIS APPROACH. WHILE WE FOUND NO EVIDENCE THAT PARADYNE'S PERFORMANCE PROBLEMS WERE RESPONSIBLE FOR THIS DECISION, WE BELIEVE THAT THESE PROBLEMS SHOULD HAVE BEEN AND PROBABLY WERE TAKEN INTO ACCOUNT IN SSA'S DECISION. AS A RESULT OF THIS DECISION, THE PARADYNE EQUIPMENT NOW PROVIDES NO APPRECIABLE INCREASE IN PROCESSING CAPABILITY OVER THE SYSTEM IT REPLACED. IN THIS SENSE, THEREFORE, PARADYNE'S PERFORMANCE CONTRIBUTED TO THE RESULTING THREE AND A HALF YEAR DELAY IN FIELD OFFICE AUTOMATION.

WITH REGARD TO MITRE'S RECENT STUDY ON PARADYNE'S SYSTEM PERFORMANCE, THE STUDY DOES NOT CONTAIN THE UNQUALIFIED ENDORSEMENT THAT PARADYNE IS IN COMPLIANCE WITH THE TERMS AND CONDITIONS OF THE CONTRACT. INSTEAD, MITRE CONCLUDES THAT THE EQUIPMENT IS IN COMPLIANCE WITH THE TERMS OF THE CONTRACT THE MAJORITY OF THE TIME AND WHEN IT IS NOT, SSA IS TAKING

APPROPRIATE STEPS TO ASSESS PENALTIES. FURTHER, THIS CONCLUSION REFERS ONLY TO THE CONTRACT'S MAINTAINABILITY STANDARDS, AND IN THIS AREA, MITRE FOUND THAT PARADYNE IS NOT MEETING THE STATED STANDARDS IN 35 TO 40% OF THE SERVICE CALLS.

ADDITIONALLY, WE HAVE CONCLUDED THAT THE CREDIBILITY OF MITRE'S CONCLUSIONS IS SUBSTANTIALLY COMPROMISED BECAUSE SSA HAS NOT ADEQUATELY CONTROLLED OR MONITORED THE SYSTEM PERFORMANCE DATA WHICH MITRE HAD TO USE AS THE BASIS OF ITS ANALYSIS. IN FACT, MITRE FOUND THAT ONLY 40% OF THE TOTAL FIELD PERFORMANCE DATA WERE USABLE. FINALLY, BECAUSE OF THE DEFICIENCIES IN PERFORMANCE DATA, MITRE DID NOT HAVE ADEQUATE TIME TO INDEPENDENTLY DETERMINE AGGREGATE AVAILABILITY. INSTEAD, MITRE ACCEPTED SSA'S AGGREGATE AVAILABILITY CALCULATIONS WITHOUT PERFORMING A COMPLETE ANALYSIS.

IN SUMMARY, MR. CHAIRMAN, WE WOULD LIKE TO PROVIDE THE FOLLOWING OBSERVATIONS:

DURING THE COURSE OF THIS PROCUREMENT, BOTH PARTIES TOOK ACTIONS WHICH WERE NOT IN THE BEST INTERESTS OF EITHER THE GOVERNMENT OR THE CONTRACTOR. AS EVIDENCE OF SUCH ACTIVITIES, WE HAVE OBSERVED A CONTRACTOR PROPOSING EQUIPMENT WHICH DID NOT MEET THE GOVERNMENT'S REQUIREMENTS; A QUESTIONABLE CONTRACT AWARD WITH THE AGENCY FAILING TO RECOGNIZE DEFICIENCIES IN THE CONTRACTOR'S PROPOSAL AND IN ITS EQUIPMENT DEMONSTRATION; AND

ACCEPTANCE OF A PRODUCT LINE WITHOUT AMPLE EVIDENCE THAT IT WAS READY FOR THE OPERATIONAL ENVIRONMENT.

THE PROCUREMENT OF COSTLY COMPUTER AND TELECOMMUNICATIONS RESOURCES IS A COMPLEX UNDERTAKING REQUIRING HIGH LEVELS OF EXPERTISE IN NUMEROUS DISCIPLINES. SSA'S EXPERIENCE IN UPGRADING ITS DATA COMMUNICATIONS SYSTEM PROVIDES AN UNFORTUNATE EXAMPLE OF A FEDERAL AGENCY NOT PROPERLY RECOGNIZING SUCH COMPLEXITIES. THE LESSON IS CLEAR: FEDERAL AGENCIES MUST HAVE QUALIFIED PERSONNEL, STRONG MANAGEMENT, EFFECTIVE ORGANIZATIONAL CONTROLS AND PROPER OVERSIGHT WHEN PROCURING SUCH RESOURCES. WITHOUT SUCH INGREDIENTS, THE GOVERNMENT IS LEFT VULNERABLE TO ACQUIRING RESOURCES WHICH MAY NOT MEET ITS NEEDS AND WHICH, IN THE FINAL ANALYSIS, HAVE A DETRIMENTAL EFFECT ON AN AGENCY'S ABILITY TO SERVE THE PUBLIC.

MR. CHAIRMAN, THIS CONCLUDES MY REMARKS. WE WILL BE GLAD TO ANSWER ANY QUESTIONS YOU OR OTHER MEMBERS MAY HAVE.