Office of Inspector General

July 28, 2000
Audit Report No. 00-030

Audit of the Development of the Electronic Travel Voucher Payment System

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DATE: July 28, 2000

TO: Donald C. Demitros, Director, Division of Information Resources Management and Chief Information Officer

Fred Selby, Director, Division of Finance

Arleas Upton Kea, Director, Division of Administration

FROM: David H. Loewenstein
Assistant Inspector General

SUBJECT: Report Entitled *Audit of the Development of the Electronic Travel Voucher Payment System* (Audit Report No. 00-030)

The Federal Deposit Insurance Corporation (FDIC) Office of Inspector General (OIG) has completed an audit of the FDIC's development of the Electronic Travel Voucher Payment System (ETVPS). The objectives of this audit were to determine whether ETVPS adhered to generally accepted system development life cycle (SDLC) procedures, user requirements were adequately defined, and system deliverables satisfied user requirements in a cost-effective and timely manner.

The FDIC's development of ETVPS generally adhered to accepted system development life cycle procedures, and user requirements were accurately and fully defined. While ETVPS did not fully meet user requirements when first released for use, the Division of Information Resources Management (DIRM) and the Division of Finance (DOF) have taken actions to address needed corrections and ensure that the system will fully meet user requirements. Also, lack of cost controls impacted the cost-effectiveness of the project; however, at time of the ETVPS development, DIRM had not yet completed procedures to ensure more effective cost controls. The OIG has been involved throughout the development effort. We have issued other products related to ETVPS development during the project as described in the background section of this report.

This report identifies opportunities for the FDIC to improve project management and cost controls for future system development efforts and contains eight recommendations. Five of the recommendations are addressed to the Director, DIRM and Chief Information Officer (CIO); four of these are intended to improve the FDIC's system development management and the other is intended to improve the interim user identification process. One recommendation addressed to the Director, DOF, is designed to improve accounting for project costs. The two recommendations addressed to the Director, Division of Administration (DOA), are designed to eliminate cumbersome reconciliation procedures currently needed to maintain and validate the accuracy of employee listings needed for user authentication, process routing, and other processes that are dependent on accurate employee information. Other needed control improvements identified are being addressed by management in response to recommendations contained in another audit report entitled *FDIC's Strategic Planning for Information Technology Resources* (Audit Report No. 00-013).

BACKGROUND

Up until ETVPS became operational in November 1999, the FDIC used the Travel Management System (TMS) to process travel vouchers. Employees filed paper vouchers that were manually entered into TMS. Reimbursement of travel expenses to employees took at least 2 weeks using this process. These processes included manual preparation of paper vouchers, manual supervisory review of the vouchers, manual revisions when needed, and a process to audit 100 percent of all vouchers submitted. While these processes generally achieved desired results, they were time-consuming, labor intensive, and not cost-effective.

The project to develop ETVPS was initiated to reduce the costs and inefficiencies associated with the manual operations related to travel voucher preparation and processing. DOF and DIRM initiated the ETVPS project on February 6, 1996 with the goal of providing an electronic travel process for all FDIC employees required to travel on official business. An inter-divisional project team was formed to re-engineer the travel process and develop an electronic travel management system to support it. In November 1996, the project team, which consisted of representatives from all major FDIC divisions, produced an ETVPS Feasibility Study that concluded that an electronic travel process would be more cost-effective than the current manual system. The study projected an implementation date of July 1, 1998 at a cost of $505,290. On January 21, 1997, the project team completed the initial system requirements. System requirements were finalized during February 1998.

We started our audit of ETVPS in March 1996 shortly after the project initiation date of February 6, 1996. To provide management with our observations, suggestions, and recommendations regarding the project in a timely manner, we performed our work as development activities progressed. During our audit, we provided oral observations and suggestions to management. Management took action on many of the suggestions we provided. We also issued several memoranda containing suggestions related to the development of ETVPS and two interim audit reports with recommendations for improving development efforts. Management agreed with our suggestions and recommendations and, in some cases, had planned similar actions. The reports and memoranda are included in appendix I. This report contains additional observations and recommendations based on our overall review of the project.

ETVPS was one of the first projects to follow the FDIC's new SDLC Manual, including revisions made during ETVPS development. The SDLC manual divides system development into eight distinct phases: (1) Planning, (2) Requirements Definition, (3) External Design, (4) Internal Design, (5) Development, (6) Testing, (7) Implementation, and (8) Maintenance. The purpose of a structured SDLC is to ensure effective management and control for system development projects. The FDIC's SDLC Manual does not fully address cost controls. We have issued a number of audit reports on the need for improved cost controls for the FDIC's system development efforts. In response to one of these reports, *Audit of the Time and Attendance Processing System Development*

Project (II) (Audit Report No. 99-011), the FDIC's former Deputy to the Chairman and Chief Operating Officer instructed DIRM to develop procedures to ensure more effective cost controls, including alerting the Information Technology (IT) Council of significant changes in a project's cost, schedule, and risk. In response to another recent audit report entitled *Audit of the FDIC's Strategic Planning for Information Technology* (Audit Report No. 00-013), DIRM and the FDIC's IT Technical Committee developed such procedures. However, these procedures have not yet been incorporated into either formal policy or the SDLC Manual and were not in place during ETVPS development.

The FDIC's SDLC Manual establishes roles and responsibilities for DIRM's project managers and the clients' program managers during system development projects. The project manager has responsibility for coordinating all DIRM efforts and resources needed to support the project. The program manager defines the planned system's scope, requirements, and benefits and coordinates with the project manager regarding schedules, resources, and budgets.

OBJECTIVES, SCOPE, AND METHODOLOGY

The objectives of this audit were to determine whether (1) the ETVPS project adhered to generally accepted system development life cycle procedures, (2) user requirements were adequately defined, and (3) system deliverables satisfied user requirements in a cost-effective and timely manner.

To accomplish the audit's objectives, we attended ETVPS Steering Committee meetings; analyzed data related to the FDIC's prior travel management process; contacted other federal agencies to identify successful travel management streamlining practices; interviewed key DIRM, DOF, and contractor personnel; and reviewed key system development documents, including alternatives and cost-benefit analyses, functional requirements documents, external and internal design documents, test scripts, and the ETVPS implementation plan. We also analyzed cost data contained in the FDIC's Financial Information Management System (FIMS) and DIRM's project costing records.

We reviewed development activities conducted between March 1996 and April 2000 and conducted our work in a real-time mode during the same time frames in accordance with generally accepted government auditing standards.

RESULTS OF AUDIT

ETVPS will benefit the Corporation by reducing the time needed to prepare travel vouchers and streamlining voucher processing and will provide travelers with a paperless means of obtaining rapid reimbursement for their travel expenses. Before ETVPS became operational, employees filed paper vouchers that were manually entered into TMS. Reimbursement of travel expenses took at least 2 weeks using this process. In addition, other costs such as administrative costs associated with TMS, costs to audit all travel vouchers, and costs for the time it took employees to prepare travel vouchers mounted considerably over the years. Rather than automating existing manual processes, the ETVPS project team re-engineered the FDIC's travel process to reflect current trends and ease the burden of travel requests, approvals, and reimbursement.

The FDIC followed a sound and structured methodology for developing the system and the development effort generally adhered to the FDIC's SDLC procedures. ETVPS user requirements were adequately defined. However, system deliverables did not satisfy all user requirements when implemented in November 1999. The ETVPS project team has been addressing the remaining requirements since implementation.

Significant delays in system implementation and increases in costs raise serious questions about the timeliness and cost-effectiveness of the project. The system was originally scheduled for implementation in July 1998 but was not delivered until November 1999. Costs were originally estimated at $505,290 and exceeded $13.8 million as of February 29, 2000. Throughout the project the ETVPS project team submitted annual Information Technology Plans that included a comparison of current year expenditures with the annual budget. However, these documents did not provide inception-to-date expenditures. In addition, on July 28, 1998, key ETVPS team members presented an interim Cost Benefit Analysis (CBA) to the IT Technical Committee requesting additional funding for ETVPS. However, $3.2 million expended in 1996 and 1997 was not included in the CBA.

Subsequent changes in scope, cost, and schedule occurred without full knowledge or approval of the FDIC's IT Technical Committee or IT Council**.** In December 1998, the project team revised the scope and schedule of the project due to delays in completing the initial portion of the system. The project team also scaled back system requirements to reduce costs. Both of these actions were taken and completed without the knowledge of the IT Technical Committee or IT Council. Further, because all ETVPS development costs were not consistently or completely captured and allocated throughout the project, neither the Corporation nor our office could fully determine the total cost of ETVPS.

Technological changes during ETVPS development, while not impacting ETVPS requirements, contributed to changes in the ETVPS development approach, estimated costs, and timeframes needed to complete the project. Technological advances in hardware and software, which enabled DIRM to take full advantage of common objects[1] using a multi-tiered application architecture,[2] necessitated changes to the ETVPS development approach that increased costs and delayed implementation. The simultaneous development and implementation of these various components created a dynamic development environment necessitating close coordination among several DIRM components. The ETVPS implementation schedule was delayed several times due to coordination issues between various DIRM components. In several instances, ETVPS implementation tasks had to be rescheduled because the Multi-Tiered Application Architecture Program/Common Objects (MAAP/CO) or other support components were not completed when needed by ETVPS.

[1] Common objects are a set of independent, fully functional objects that can be used by any compatible application. A common object is a real life business function that is modeled and provided as a server. The server is then accessible by any application that requires its services.
[2] Multi-Tier architecture allows developers to break down complex business processes into more manageable pieces, allowing for reusability. The FDIC's 3-tiered model consists of user-services, business services, and data services tiers.

Another factor that slowed ETVPS development and increased costs was the inconsistency of the various lists of employee names that ETVPS needs to process travel authorizations and vouchers. ETVPS uses several lists of employee names for security purposes and for automatic messaging. These employee lists were originally developed for differing purposes, and the FDIC had no prior need to ensure their consistency. However, the inconsistent representations of employee names among the various lists ultimately complicated authorization and voucher processing in ETVPS.

IMPROVED CONTROLS ARE NEEDED TO MONITOR DEVELOPMENT COSTS AND SCHEDULES

ETVPS costs significantly exceeded amounts projected without the full knowledge and approval of the IT Council. Although ETVPS will benefit the FDIC, the actual cost to develop the system significantly exceeded the amounts originally anticipated and also exceeded subsequent cost estimates that were reviewed and approved by the IT Council. Costs, originally estimated at $505,290, were at least $13.8 million as of February 29, 2000, and additional funds were still needed to complete the system. Budget overruns and delays during the project occurred without the IT Council’s full knowledge. Therefore, the Council was not provided the opportunity to determine whether and how the project should proceed. The ETVPS development team also initiated significant changes to the ETVPS scope, timeframes, and costs before developing a revised CBA and presenting the proposed changes to the IT Technical Committee. The system, originally scheduled for implementation in July 1998, was not delivered until November 1999.

Increases in costs and risks related to the project and schedule delays occurred throughout the project without full IT Council knowledge or approval. The significant implementation delays and cost increases associated with ETVPS development raise serious questions about its cost effectiveness and whether it would have received continued IT Council approval if information had been provided in a timely manner. In December 1998, the ETVPS project team determined that fully automating special travel (first class, foreign, actual expense reimbursement) would not be cost-effective and would push the completion date past December 31, 1999. In an attempt to reduce costs, the ETVPS development team decided to reduce the functionality of a portion of the system. The team proposed replacing some automated calculations associated with special travel with manual calculations.

Despite significant changes in the overall development cost and schedule for ETVPS, the project team initiated efforts on the new development approach before developing a revised CBA, receiving formal approval of the ETVPS Steering Committee, or presenting the information to the IT Council or IT Technical Committee. The ETVPS Steering Committee approved the change on March 24, 1999 without a revised CBA. On June 1, 1999, the ETVPS project team submitted a CBA to the IT Technical Committee after work on the revised approach had been completed.

Chapter 1 of the FDIC’s SDLC Manual assigns the program manager, the principal user representative, primary responsibility for project budget preparation and approval authority for expenditure of funds. This chapter also assigns the project manager, the principal representative from the system development organization, the responsibility for overseeing the full spectrum of system development activities, which includes working with the program manager to prepare the project budget package for the IT Technical Committee.

The SDLC Manual does not specifically describe procedures to be followed when a project exceeds its budget. We have issued a number of audit reports on the need for improved cost controls for the FDIC's system development efforts. In response to one of these reports, *Audit of the Time and Attendance Processing System Development Project (II)* (Audit Report No. 99-011), the FDIC's former Deputy to the Chairman and Chief Operating Officer instructed DIRM to develop procedures to ensure more effective cost controls, including alerting the IT Council of significant changes in a project's cost, schedule, and risk. DIRM and the FDIC's IT Technical Committee developed such procedures in response to another recent audit report entitled *Audit of the FDIC's Strategic Planning for Information Technology* (Audit Report No.00-013).

The procedures call for a presentation to the IT Technical Committee by the project team for any approved project experiencing or anticipating budget overruns. Based on the presentation, the IT Technical Committee will recommend one of three options to the IT Council: (1) disapprove additional funding, (2) re-allocate funds from other projects that are experiencing surpluses, or (3) request additional funding from the FDIC Board of Directors. However, these procedures have not yet been incorporated into formal policy or the SDLC Manual and were not in place during ETVPS development. Therefore, while these procedures should improve cost controls for future development efforts, the timing of their development did not benefit ETVPS.

Recommendation

(1) We recommend that the Director, DIRM and CIO, incorporate the cost control procedures developed by DIRM and the IT Technical Committee into either a formal policy directive or the FDIC's SDLC Manual.

IMPROVED PROCEDURES ARE NEEDED TO TRACK PROJECT COSTS

Although reported costs related to ETVPS development significantly exceeded both original and revised estimates, all appropriate costs related to the system were not included in charges allocated to the project. In addition to DIRM and DOF, DOA and the Division of Supervision (DOS) also expended resources on the project. However, these and other costs related to the development effort were not fully captured. Our office and the FDIC were unable to accurately and completely determine all costs associated with the project because of the lack of effective procedures to accumulate and allocate costs.

Costs for projects classified as major FDIC Projects, defined as projects with an anticipated cost greater than $100,000, are tracked by FIMS through the use of a unique project number. However, the project number field is not mandatory in the FDIC's accounting system. Therefore, while this method for tracking costs provides the capability to capture all expenditures, it does not ensure that all costs will be charged to the appropriate project number. As a result, all costs associated with DOS and DOA efforts relative to ETVPS were not fully captured. Further, the FDIC has no assurance that other costs were accurately and completely recorded.

In addition, architecture costs to support ETVPS were not allocated to the project. During development, DIRM charged costs directly related to ETVPS to the associated project number. DIRM established separate project numbers for some components of the architecture supporting ETVPS--MAAP/CO, ENTRUST, and Microsoft Messaging Queue and charged related costs to these project numbers. While DOF believes that DIRM may have charged architecture-related costs to ETVPS, we found no evidence of such charges. However, another architecture component, CCHRIS supports only ETVPS. Therefore, the costs associated with CCHRIS, which were charged to the ETVPS project number, should be allocated entirely to ETVPS.

Additionally, DOF and DIRM also used different methods for charging salaries to projects. DIRM used fully loaded personnel costs. In contrast, DOF used salaries, payroll taxes, and retirement costs but did not include the cost of benefits, thus understating the cost of resources allocated to the project.

Recommendation

(2) We recommend that the Director, DOF, initiate changes to FIMS to make the use of project numbers mandatory. To allow the project number to be a mandatory field and still permit time charges that should not charged to a project, a default project number should be developed to account for those charges that should not be charged to projects.

NEW PROJECT MANAGEMENT PROCEDURES ARE NEEDED WHEN DEVELOPMENT PROJECTS CROSS DIRM ORGANIZATIONAL LINES

During ETVPS development, coordination of resources by the project manager was difficult due to the numerous DIRM organizations responsible for the ENTRUST and the various components of MAAP/CO. Simultaneous development of ETVPS and MAAP/CO created a dynamic environment. In many instances, changes to MAAP/CO and ETVPS required reciprocal changes. Needed support from other related systems, such as the FDIC’s electronic signature software (ENTRUST), also required coordination by the project manager.

In several instances, ETVPS implementation tasks had to be rescheduled because MAAP/CO or other support components were not scheduled for completion when needed by ETVPS. For example, ETVPS implementation had to be re-scheduled from September 5, 1999 to October 10, 1999 because the dates for installing new bank examiner software on laptop computers in DOS field offices were not communicated to the ETVPS implementation team leader before the dates for installing the ETVPS software were scheduled. Because each software update required examiners to report to their assigned field offices and DOS did not want to require more than one unscheduled trip, installation of ETVPS was delayed until the examination software was also ready for installation.

Coordination difficulties also caused a problem with the ETVPS demonstration before actual system rollout. System settings, changed by the project team for testing on the weekend prior to presenting the ETVPS demonstration, were not reset. When the DOF testing team leader attempted to demonstrate ETVPS, the system would not work properly.

ETVPS rollout was also delayed because of coordination issues with the ETVPS implementation team and the ETRUST implementation team. After the ETVPS implementation team prepared what they thought was the final implementation plan, they learned that ENTRUST would not be ready for use on the scheduled rollout date.

The FDIC's SDLC Manual assigns the project manager oversight responsibility for the full spectrum of system development activities, including coordinating the resources necessary to develop a system. The project manager is responsible for working with the program manager and user community to define requirements, develop an overall project work plan, and ensure that efforts and materials needed to support the system are completed. The project manager oversees all development activities, ensuring compliance with SDLC and related policies and directives and ensuring appropriate approvals and signatures are obtained. However, the complexity of MAAP/CO, which uses state-of-the-art programming approaches that were new to DIRM, could not have reasonably been foreseen at the beginning of the ETVPS project. The number of people, organizations, and skills needed were significantly greater for ETVPS because of the use of common object technology. However, DIRM's experience with the development of ETVPS in such an environment illustrates the need for close coordination between all involved DIRM components during development efforts.

ETVPS project coordination difficulties were discussed with DIRM officials who agreed that ETVPS development coordination will provide lessons learned for future common object development projects. DIRM management agreed that project managers responsible for projects using common object technology should identify all needed human, hardware, software, and service resources and obtain necessary commitments from management regarding these resources early in the project.

Recommendations

We recommend that the Director, DIRM and CIO, develop specific procedures for system development projects that will cross DIRM organizational lines. The procedures should clarify the role and responsibilities of the project manager and should include:

(3) Identifying, at the beginning of project, all resources believed necessary to complete the system development project and updating this information periodically.

(4) Obtaining commitments from appropriate DIRM components to ensure the availability of needed resources throughout the project.

(5) Developing a process to schedule and monitor project resources obtained from DIRM sections.

MULTIPLE LISTS OF EMPLOYEE NAMES HINDERED ETVPS DEVELOPMENT

ETVPS and other FDIC systems need consistent employee name lists for user validation, security, and supervisory approval of travel authorizations and vouchers. Currently, the FDIC maintains several lists of employee names including one maintained by the United States Department of Agriculture's National Finance Center. Each of these lists were developed over the years for specific purposes and the FDIC had no need to ensure their consistency. The lists often contain different representations of employee names. For example, one may list employees by official names while others may use nicknames. Because ETVPS must use these various lists until the Corporate Human Resources Information System (CHRIS) is implemented in the first quarter of 2001, the different name representations can and already have caused users to be denied access to ETVPS. Further, having multiple name representations has prevented supervisory approval of authorizations and vouchers. It also can contribute to third parties being unable to create travel authorizations for other travelers. Creating such authorizations was one of the main requirements of ETVPS and is a standard DOS practice.

Initially, DOA was to develop a standardized list of employee names to support the Time and Attendance Processing System (TAPS). However, TAPS was cancelled before a standardized employee list was developed. Because CHRIS is not scheduled for initial implementation until the first quarter of 2001, interim procedures are needed to ensure the timely and consistent entry of employee names for ETVPS use.

To illustrate the need for interim procedures, DOS field office employees often travel to attend orientation training at their regional office shortly after reporting for duty. If the FDIC waited for the NFC employee list to be updated, the new employee would not be able to file a travel authorization to attend orientation until completing a payroll cycle. The ETVPS project team had to devise a way, other than interfacing with NFC, to load new employee names into ETVPS. Attempts to use the lists of names maintained by other divisions resulted in hundreds of mismatches, omissions, and invalid names. Labor-intensive manual reconciliations were needed to ensure the accuracy of the information, as shown in the following discussion.

The ETVPS project team decided to use the list of names from the FDIC's digital signature and encryption software, ENTRUST, as a benchmark for traveler identification, because names in this system were supposed to be legal names of active employees who logged on to ETVPS. This list is also reconciled with CCHRIS, which is used for determining an employee's supervisor. ETVPS also uses the FDIC's e-mail system, Microsoft Outlook, and its related list of names to automatically notify a supervisor that his/her approval is required for a subordinate's travel authorization or travel voucher. However, this solution requires manual reconciliation because the lists of names are updated by three different sources.

When a new employee reports for duty, an Administrative Officer in the responsible division creates a personnel file and submits the necessary payroll information to NFC. The Administrative Officer also creates a record in CCHRIS. Next, a DIRM employee sets up an e-mail account for the new employee. Finally, DIRM security establishes an ENTRUST profile for the employee. At this point, the new employee appears on four separate lists of names and may have a different variation of their name on each list. The solution to the list of names dilemma will occur in early 2001, when

CHRIS is implemented. The list of names in this system will be the official FDIC system of record for employee information. CHRIS will use a unique employee identification number, which can be used to eliminate the problem of multiple representations of the same name.

Sound management practices dictate that an organization should have only one official list of employee names. More than one list can cause confusion and result in unnecessary maintenance expenses. As an interim solution, the administrative officer making initial contact with a new employee or processing changes to existing employee records could distribute this information to the various system administrators whose systems use a list of employee names, thereby reducing discrepancies between the lists. DOA should issue instructions to administrative officers instructing them to distribute copies of new employee forms to responsible system administrators. The names (that is, legal names) on these forms could be used by any system that uses lists of names.

Recommendations

We recommend that the Director, DIRM and CIO:

(6) Furnish a listing of all computer systems that use employee names in their processes to administrative officers.

We recommend that the Director, DOA:

(7) Instruct all system administrators to use only the employee names that are provided to them by administrative officers.

(8) Instruct all administrative officers to provide information on new hires or changes to existing employee records to system administrators whose systems use employee names in their processes.

CORPORATION COMMENTS AND OIG EVALUATION

On July 17, 2000, the Director, DIRM, provided a written response to a draft of the report agreeing with the report's contents and recommendations. The Director's response is presented in appendix II of this report.

The Director, DOA, provided a written response to the draft report, dated July 20, 2000. The Director's response agreed with the report's contents and addressed the recommendations. The Director's response is presented in appendix III of this report.

On July 18, 2000, the Director, DOF, provided a written response to the draft report. The DOF response did not fully address our recommendations. However, alternative actions proposed by DOF management at a meeting on July 20, 2000 met the intent of our recommendation. DOF management explained, in greater detail, how the new guidelines for project accountability will be used in conjunction with DIRM's PILLAR system for collecting project expenses. DOF indicated that it will issue the guidance by August 31, 2000. The DOF response also requested clarification of several items contained in the draft report. The requested clarifications related to the contents of earlier OIG suggestions involving ETVPS; communications to the IT Council regarding changes to project scope, cost, and schedule; and reasons for changes in ETVPS functionality. We revised the final audit report to address these comments. The Director's response is presented in appendix IV of this report.

The Corporation's responses to the draft report and proposed alternative actions provide the elements necessary for management decisions on each of the report's recommendations. Accordingly, no further response to this report is required.

APPENDIX I

[Appendix I, pages 12-51 of this report, contains prior OIG work in the ETVPS area. It is available in hard copy by contacting the FDIC Public Information Center.]

FDIC
Federal Deposit Insurance Corporation
3501 North Fairfax Dr., Arlington, VA 22226

Division of Information Resources Management

July 17, 2000

TO: David H. Loewenstein
Assistant Inspector General

CHeindelfor

FROM: Donald C. Demitros, Director

SUBJECT: DIRM Management Response to the Draft OIG Report Entitled, "Audit of the Development of the Electronic Travel Voucher Payment System" (Audit No. 98-905)

The Division of Information Resources Management (DIRM) has reviewed the subject draft audit report and generally agrees with the findings and recommendations. Responses to each of the specific recommendations (1, 3, 4, 5 and 6) directed to DIRM are provided below. The Division of Finance (DOF) is responding to recommendation number 2 under separate cover. The Division of Administration (DOA) is responding to recommendation numbers 7 and 8 under separate cover.

Management Decision:

Recommendation: (1) We recommend that the Director, DIRM and CIO, incorporate the cost control procedures developed by DIRM and the IT Technical Committee into either a formal policy directive or the FDIC's SDLC Manual.

DIRM Response:

DIRM believes that over the last two years sufficient internal controls have been adopted and are now in place to adequately monitor IT development costs and schedules. DIRM firmly believes that project management and oversight rests squarely in DIRM with appropriate oversight by the IT Technical Committee and the IT Council. Discussions held earlier this year with the OIG regarding project oversight have resulted in an agreement that the newly implemented Technical Committee reallocation and review of projects provides the necessary independent project oversight. These procedures were formalized and approved by the IT Technical Committee in April of 2000, two months after the exit conference for this audit. DIRM will continue to reappraise existing policies and procedures to enhance them as needed. DIRM also remains committed in its adherence to the following policies, procedures and activities, which have been implemented since the commencement of the ETV project:

- May 1998 - DIRM developed cost-benefit analyses guidelines which define internal DIRM procedures to be followed for the cost-benefit analyses.

- July 1998 - The Director, Division of Finance issued Circular 4301.1 requiring cost-benefit analyses be performed on all capital assets costing more than $3 million.

- July 1998- DIRM Post Implementation Review (PIR) implemented to critically assess the quality of system development projects and improve overall IT investment management.

- August 1998 – The Budget Costs analysis was first incorporated as an integral piece of the discretionary overall IT project budget-ranking process.

- April 1999- Drafted System Development Life Cycle update, which detailed more rigorous project oversight and project management.

- April 2000 - The IT Technical Committee approved new midyear budget reallocation procedures.

- April 2000 - The IT Technical Committee first utilized the new reallocation procedures for mid-year budget review.

Recommendation: We recommend that the Director, DIRM and CIO, develop specific procedures for system development projects that will cross DIRM organizational lines. The procedures should clarify the role and responsibilities of the project manager and should include:

(3) Identifying, at the beginning of project, all resources believed necessary to complete the system development project and updating this information periodically.

(4) Obtaining commitments from appropriate DIRM components to ensure the availability of needed resources throughout the project.

(5) Developing a process to schedule and monitor project resources obtained from DIRM sections.

DIRM Response: DIRM agrees with these recommendations. Virtually all applications projects cross DIRM organizational lines (i.e. desktop, security, server, change management, etc). The ETVPS project team held weekly meetings with members of Technical Infrastructure and Security to ensure coordination of implementation activities. The ETVPS project plan also included the required tasks and timelines for all Technical Infrastructure and Security. It is currently the project manager's responsibility to ensure the accomplishment of the actions identified in these recommendations.

As noted by the OIG in the draft report, ETVPS presented DIRM with some complex and unique project management challenges. Given those complexities, DIRM recognizes that there are some lessons to be learned and some best practices to use in future projects, especially in common objects development initiatives. To address these recommendations, DIRM will issue a policy/procedural memorandum to all applications project managers highlighting the recommended activities as well as reiterating the project management requirements of the SDLC. In addition, DIRM will conduct an ETVPS lessons learned/best practices briefing for project managers to reiterate the recommended activities. Both the briefing and memorandum will be completed by August17, 2000.

Recommendation: We recommend that the Director, DIRM and CIO:

(6) Furnish a listing of all computer systems that use employee names in their processes to administrative officers.

DIRM Response: DIRM agrees that there is a need for a Corporate standard listing of employee names. There are currently two primary source systems for employee names, Outlook and the NFC Payroll System. DIRM recommends that these two systems be used by the administrative officers as an interim solution to meet this need. DIRM will provide the Division of Administration with the names of the systems administrators for these two systems by August 31, 2000 to ensure that any changes to existing employees or new hires are captured in these two source systems.

Please address any questions to DIRM's Audit Liaison, Rack Campbell, on (703) 516-1422.

CORPORATION COMMENTS

APPENDIX III

FDIC

Federal Deposit Insurance Corporation
550 17th Street, NW, Washington, DC 20429

Division of Administration

July 20, 2000

TO: David H. Loewenstein
Assistant Inspector General

FROM: Arleas Upton Kea *Arleas Upton Kea*
Director, Division of Administration

SUBJECT: Management Response to Draft Report entitled A*udit of the Development of the Electronic Travel Voucher Payment System (Audit No. 98-905).*

The Division of Administration (DOA) has completed its review of the Office of Inspector General (OIG) Draft Report entitled *"Audit of the Development of the Electronic Travel Voucher Payment System."* The OIG identified four audit findings and made eight recommendations. However, our response focuses solely on those recommendations (7 and 8) made directly to the Division of Administration. The remaining report recommendations (1 through 6) addressed to the Division of Finance and/or the Division of Information Resources Management (DIRM) will be responded to by the respective Divisions separately.

Based on our preliminary review, corrective actions are required for all recommendations addressed to DOA. It is our plan to move promptly to implement the recommendations as outlined in the draft report.

MANAGEMENT DECISION

Finding: Multiple Lists of Employee Names Hindered ETVPS Development

Recommendation # 7: Instruct all system administrators to use only the employee names that are provided to them by administrative offices.

Management Response: DOA concurs with the recommendation. DIRM is currently working to provide a listing of all system administrators to DOA. Upon receipt of the listing, DOA will instruct all system administrators in writing within 30 days that they are required to use only the names that are provided to them by the administrative offices.

Recommendation # 8: Instruct all administrative officers to provide information on new hires or changes to existing employee records to system administrators whose systems use employee names in their processes.

Management Response: DOA concurs with the recommendation. DOA will instruct all administrative officers in writing by August 30, 2000.

If you have any questions regarding this response, you may contact Andrew O. Nickle, Audit Liaison for the Division of Administration, at (202) 942-3190.

cc: Cindy Medlock
Mary Anderson

FDIC

Federal Deposit Insurance Corporation

801 17th Street NW, Washington, D.C. 20434 **Division of Finance**

July 18, 2000

MEMORANDUM TO: David H. Loewenstein
Assistant Inspector General

FROM: Fred Selby
Director

SUBJECT: Response to Draft Report Entitled Audit of the Development of the Electronic Travel Voucher Payment System (Audit No. 98-905)

Thank you for the opportunity to comment on your draft report. As previously communicated to your office, we do not take exception with the majority of the report. However, we do believe that there are certain sections wherein statements are made which do not accurately portray the situation and additional clarification is needed to properly represent the facts surrounding the Electronic Travel Voucher Payment System, (ETVPS) initiative.

BACKGROUND SECTION

- You state on page 4 "Our suggestions included eliminating the process to audit all travel vouchers…" and "Our recommendations…streamlining the Corporation's travel policies and procedures." While we believe that the OIG was very helpful in providing observations and suggestions during the course of the development of ETVPS, these are not accurate statements. These two areas were part of our original process improvement efforts and were not added based upon any OIG suggestions or recommendations made during the development effort. As indicated in our July 17, 1996 response to the OIG Report entitled Information System Audit of the Electronic Travel Voucher System Development Project (Audit Report No. 96-088) included in attachment I, DOF Management then noted that these cost-saving initiatives were already in progress prior to the commencement of that particular audit. Furthermore, it was pointed out that when FDIC management previously proposed similar cost-saving initiatives, the OIG had considered anything less than 100% auditing of travel vouchers to be unsatisfactory. These initiatives were clearly part of management's project plan and not the result of OIG recommendations or suggestions during the course of the development of ETVPS and were clearly stated in a PowerPoint presentation delivered to the Audit Committee on July 16, 1996.

RESULTS OF AUDIT SECTION

- Your statement that the ETVPS project team and Steering Committee did not provide the IT Technical Committee or the IT Council a full opportunity to consider changes in scope, cost, or schedule is not totally accurate. The report may be correct in stating that the IT Council did not have the full opportunity to consider changes in the scope, cost, or schedule related to the ETVPS project. However, the ETVPS project team had no direct access to the IT Council. Only the IT Technical Committee did. An interim cost benefit analysis was completed in July 1998 and a presentation of the interim CBA made to the IT Technical Committee on July 28, 1998. We believe this statement needs to be revised to indicate that only the IT Technical Committee and not the ETVPS project team and Steering Committee did not provide the IT Council full opportunity to review/approve changes.

IMPROVED CONTROLS NEEDED TO MONITOR COSTS AND SCHEDULES

- The statement that the ETVPS development team decided to reduce the functionality of a portion of the system to complete the system by yearend is not an accurate depiction of the reason that the changes were made. While there was an attempt to complete ETVPS by yearend, the changes made were impacted by the reality of the cost/benefit consideration of the more complicated routing necessary for special travel rather than the consideration of only making changes to ensure completion of the project by 12/31/99.

IMPROVED PROCEEDURES ARE NEEDED TO TRACK PROJECT COSTS

- The allocation that DIRM utilizes for charging salaries to projects is for their internal reporting only. FIMS treats benefits consistently.

RECOMMENDATION NO. 2

- We don't believe that this recommendation by itself serves as a solution to the problem as it still won't necessarily drive the preparer from the default to the desired project number. Today's default is not to enter a project number. In the short term significant resources would have to be expended on FIMS, as well as, other source systems, in order to make this recommendation a reality. A short-term expenditure of resources at this point would appear to be counter-productive. DOF is seeking a long-term solution and has initiated several efforts to address this concern.

  DOF believes that the key to successful project cost management is a knowledgeable and attentive project manager who knows all facets of the project and monitors cost from all sources. As previously indicated in our response to the OIG Report Entitled Audit of the FDIC's Strategic Planning for Information Technology Resources (Audit No. 00-013) and agreed to by the OIG, DOF is currently working on a long-term financial modernization project. In the interim, DOF is developing a Project Number Management Program that will establish clear rules for project number usage as well as expectations for any project manager requesting a project number. Accountability to these guidelines will be a better way to ensure completeness and accuracy rather than initiating changes to FIMS. A draft of the plan is expected to be completed within the next few weeks. As a further interim step, DOF will initiate a program for Budget Year 2001 with the Division of Information and Resource Management (DIRM) using DIRM's project based version of Pillar to collect budgets and expenses for development projects.

If you have any questions with our response or would like to discuss it further, please don't hesitate to contact Stan Pawlowski or myself.

CC: Don Demitros
Arleas Upton Kea
Steve Anderson
Karen Hughes
Russ Cherry
Ralph Elosser
Mike Agresto
Chris Husker
Patti Neal
Gary Peck
Stan Pawlowski
Ed Mahaney
Mike Hannah

APPENDIX V

MANAGEMENT RESPONSES TO RECOMMENDATIONS

The Inspector General Act of 1978, as amended, requires the OIG to report the status of management decisions on its recommendations in its semiannual reports to the Congress. To consider FDIC's responses as management decisions in accordance with the act and related guidance, several conditions are necessary. First, the response must describe for each recommendation

- the specific corrective actions already taken, if applicable;
- corrective actions to be taken together with the expected completion dates for their implementation; and
- documentation that will confirm completion of corrective actions.

If any recommendation identifies specific monetary benefits, FDIC management must state the amount agreed or disagreed with and the reasons for any disagreement. In the case of questioned costs, the amount FDIC plans to disallow must be included in management's response.

If management does not agree that a recommendation should be implemented, it must describe why the recommendation is not considered valid. Second, the OIG must determine that management's descriptions of (1) the course of action already taken or proposed and (2) the documentation confirming completion of corrective actions are responsive to its recommendations.

This table presents the management responses that have been made on recommendations in our report and the status of management decisions. The information for management decisions is based on management's written response to our report and subsequent discussions with management representatives.

Rec. Number	Corrective Action: Taken or Planned/Status	Expected Completion Date	Documentation That Will Confirm Final Action	Monetary Benefits	Management Decision: Yes or No
1	The Corporation agreed with our recommendation and has already taken action. Procedures for IT Technical Committee reallocation and review of projects were formalized and approved by the IT Technical Committee in April 2000.	April 2000	Formal IT Technical Committee policy statements	Not quantifiable	Yes
2	DOF management did not agree with our recommendation. However, proposed alternative actions presented by DOF at a meeting on July 20, 2000 met the intent of our recommendation. DOF agreed to incorporate the use of DIRM's expense collection system, PILLAR, in their project accountability guidance.	August 31, 2000	Project accountability guidance	Not quantifiable	Yes
3, 4, & 5	The Corporation agreed with our recommendations. DIRM will issue a policy/procedure memorandum to all applications project managers highlighting recommended activities as well as reiterating the project management requirements of the SDLC manual. In addition, DIRM will conduct an ETVPS lessons learned/best practices briefing for project managers to reiterate the recommended activities.	August 17, 2000	Memorandum and briefing documentation	Not quantifiable	Yes
6	The Corporation agreed with our recommendation. DIRM will provide the Division of Administration with the names of the system administrators by August 31, 2000.	August 31, 2000	List of system administrator names	Not quantifiable	Yes
7 & 8	The Corporation agreed with our recommendations. DOA will instruct all system administrators in writing within 30 days that they are required to use only the names that are provided to them by the administrative offices.	August 30, 2000	Written instructions to system administrators	Not quantifiable	Yes