OFFICE OF INSPECTOR GENERAL
EXPORT-IMPORT BANK
of the **UNITED STATES**

AUDIT OF INFORMATION TECHNOLOGY SUPPORT FOR EXPORT-IMPORT BANK'S MISSION

January 24, 2012
OIG-AR-12-04

Office of Inspector General

**Export-Import Bank
of the United States**

January 24, 2012

MEMORANDUM

TO: Alice Albright
                Executive Vice President and Chief Operating Officer

                Fernanda Young
                Chief Information Officer

FROM: Christine Staley
                Senior Auditor

Christine Staley

SUBJECT: Audit of Information Technology Support for Export-Import Bank's Mission

This memorandum transmits Audit Report OIG-AR-12-04, Information Technology Support for Export-Import Bank's Mission. The Office of Inspector General engaged BDO USA, LLP to perform the audit under a contract managed by this office. The objective of this audit was to determine whether Ex-Im Bank is minimizing the cost and maximizing the usefulness of its key IT systems to meet Ex-Im Bank's mission.

The audit found that, while the business operations at Ex-Im Bank are functioning and transactions are being processed, the IT systems are not supporting these operations efficiently and effectively. Overall, Ex-Im Bank IT systems and databases do not always capture and manage all necessary data for business needs and antiquated IT applications cause workflow inefficiencies. In addition, because not all applications for Ex-Im products are electronically accepted and/or processed in a centralized database, and because Ex-Im Bank's IT systems are not integrated, certain key data has to be manually entered into different Ex-Im Bank systems and transaction records hard copied to complete workflow processing task(s). In sum, the present IT application infrastructure makes it difficult for Ex-Im Bank to provide timely service, effectively manage and track its programs, measure progress, and increase productivity. Furthermore, Ex-Im Bank does not have practices to effectively manage its strategic planning, IT spending, and the System Development Life Cycle and Program Change Management process.

We made eleven recommendations to address these findings. Management concurred with the findings and recommendations.

We appreciate the courtesies and cooperation provided to the auditors during the audit. If you have any questions, please call me at (202) 565-3996.

cc:
Fred P. Hochberg, Chairman and President
Audit Committee
Michael Cushing, Senior Vice President, Resource Management
John McAdams, Senior Vice President, Export Finance

John Lowry, Director, Information Technology Security and System Assurance
Robert Fuller, Director, Information Technology Systems Engineering
David Sena, Acting Senior Vice President, Chief Financial Officer and Audit Liaison
Michele Kuester, Vice President, Operations and Data Quality
Robert Morin, Vice President, Transportation Portfolio Management
Jeffrey Abramson, Vice President, Trade Finance
Richard Brackley, Managing Director, Claims and Recoveries Section
Patricia Wolf, Supervisor, Financial Reporting

January 20, 2012

Christine Staley
Senior Auditor
Office of Inspector General
Export-Import Bank of the United States
811 Vermont Avenue, N.W.
Washington, D.C. 20571

Subject: Report on Information Technology Support for Export-Import Bank's Mission.

Dear Ms. Staley:

This letter submits our final report representing the results of our audit of how information technology ("IT") supports Export-Import Bank's mission. The objective of this audit was to evaluate whether the IT systems at the Export-Import Bank of the United States ("Ex-Im Bank" or "Ex-Im") are able to effectively and efficiently support the Ex-Im Bank mission.

We conducted our performance audit in accordance with Generally Accepted Government Auditing Standards ("GAGAS"). Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

This audit did not constitute an audit of financial statements in accordance with GAGAS. BDO was not engaged to, and did not render an opinion on Ex-Im Bank's financial statements or internal controls over financial reporting or over financial management systems. The information included in this report was obtained from Ex-Im Bank on or before September 20, 2011. We have no obligations to update our report or to revise the information contained therein to reflect events and transactions occurring subsequent to September 20, 2011.

Sincerely,

BDO USA, LLP

TABLE OF CONTENTS

EXECUTIVE SUMMARY

BDO USA, LLP ("BDO") conducted an audit of the information technology ("IT") support for Export-Import Bank of the United States ("Ex-Im Bank" or "Ex-Im") mission. This audit was performed under Assignment # EXIM-11-P-0043 issued by the Office of Inspector General ("OIG").

In conjunction with this evaluation, the objective of this audit was to determine whether Ex-Im Bank is minimizing the cost and maximizing the usefulness of its key IT systems to meet Ex-Im Bank's mission. The specific audit objectives were to:

1. Identify key data and procedures used by Ex-Im Bank to process and monitor its loan, guarantee, and insurance products, as well as loan default and guarantee and insurance claims.
2. Identify interoperability of Ex-Im Bank's four critical IT systems: Ex-Im General Support System, the Financial and Administrative System, EXIM Online, and the Oracle General Support System.
3. Determine whether Ex-Im Bank's IT systems provide useful information to effectively and efficiently process and monitor activity.
4. Identify effectiveness of IT applications and systems as they relate to Ex-Im Bank's operating mission.
5. Identify annual expenditures on IT systems and determine the amounts applied to maintain and improve its systems.

Our audit work revealed that, while the business operations at Ex-Im Bank are functioning and transactions are being processed, the IT systems are not supporting these operations efficiently and effectively. Overall, Ex-Im Bank IT systems and databases do not always capture and manage all necessary data for business needs and antiquated IT applications cause workflow inefficiencies. For instance, Ex-Im Bank's Application Processing System, which is in the Financial and Administrative System and was developed decades ago, cannot handle certain underwriting data necessary for a transaction or capture necessary information related to certain transportation deals. In addition, because not all applications for Ex-Im products are electronically accepted and/or processed in a centralized database, and because Ex-Im Bank's IT systems are not integrated, certain key data has to be manually entered into different Ex-Im Bank systems and transaction records hard copied to complete workflow processing task(s). Because of these issues, data integrity is at risk, resources are not efficiently used, and data gathering and reporting are burdensome and time consuming. In sum, the present IT application infrastructure makes it difficult for Ex-Im Bank to provide timely service, effectively manage and track its programs, measure progress, and increase productivity.

Furthermore, Ex-Im Bank does not have practices to effectively manage its strategic planning, IT spending, and the System Development Life Cycle ("SDLC") and Program Change Management ("PCM") process. The audit found that: the Office of the Chief Financial Officer does not have sufficient detailed information on the amount of IT spending versus planned and the specific purpose for each expenditure; the Strategic Plan was not formally approved and is not sufficiently comprehensive to coordinate and manage initiatives; and the SDLC and PCM processes are not consistently followed. Failure to have strong internal controls in these areas prevents management from determining and monitoring the best use of funds to improve IT support of Ex-Im Bank's mission.

Even though all findings have some relation to IT systems, they are all not the direct responsibility of the IT department due to their pervasive nature. While we have identified eleven specific recommendations for the findings included in the above areas, our overall recommendation is for the business operations and IT teams to each designate a champion(s) that understands their respective needs and technical capabilities and work together to develop an integrated IT application systems to ensure that business is conducted effectively and efficiently to support Ex-Im Bank's mission.

BACKGROUND

Export Import Bank of the United States ("Ex-Im Bank" or "Ex-Im") is an independent executive agency and a wholly owned United States ("U.S.") government corporation. Ex-Im Bank is the official export credit agency of the U.S. Its mission is to support U.S. exports by providing export financing through its loan, guarantee, and insurance programs in cases (1) where the private sector is unable or unwilling to provide financing, or (2) when such support is necessary to level the playing field due to financing provided by foreign governments to exporters in competition for U.S. export sales. By facilitating the financing of U.S. exports, Ex-Im Bank helps companies create and maintain U.S. jobs. Ex-Im Bank has provided financing support for export sales in over 150 markets throughout the world. Ex-Im Bank's charter requires reasonable assurance of repayment for the transactions it authorizes and the Ex-Im Bank closely monitors credit and other risks in its portfolio.

Ex-Im Bank's Charter requires Ex-Im Bank to develop and "implement an electronic system designed to track all pending transactions" and to establish and maintain a website through which Bank products may be applied for and to obtain information regarding the status of applications.[1] As described below, Ex-Im Bank's uses four mission critical information technology ("IT") systems to conduct business operations.

I. Ex-Im General Support System ("GSS") – GSS is the underlying network which all Ex-Im employees utilize when they connect to the shared drives and also browse the Ex-Im network to access various applications and networked resources.

II. Ex-Im Online ("EOL") – EOL is a web-based infrastructure that allows users (exporters, importers) to log into Ex-Im's system to submit information electronically and check on export/import records. EOL is used to capture the initial application data, track documents, and route the workflow. It was originally only intended to meet the needs of the insurance business for short-term products. As of the audit, the EOL system supports the following Ex-Im products: short-term single-buyer insurance; medium-term insurance; short-term multi-buyer insurance; loan guarantees (up to $10MM); financial institution buyer credit insurance; foreign dealer insurance; letter of credit insurance for banks; and express insurance. All other applications for Ex-Im products must be completed by filling out applications forms and submitting them by email, fax, or mail.

III. Financial and Administrative System ("F&AS") — F&AS is a distributed based environment that hosts five financial-related minor applications. The minor applications are:

- Application Processing System ("APS") – APS processes loans from the initial customer contact to application receipt, underwriting evaluation, and when applicable, underwriting approval.

- Standard General Ledger ("LG/A") – LG/A is Ex-Im's accounting system and standard general ledger. The application also processes loans, guarantees, and insurance policies from authorization through final disbursement.

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[1] 12 U.S.C. §§ 635(b)(1)(J) and (2)(h).

- Claims and Recovered Debt Servicing System ("CARDS") – CARDS is used to process claims from receipt to closure. This includes the evaluation of the submitted claim for liability, the issuance of payments for valid claims and the collection of money from third parties. CARDS encompass five subsystems: Claims Entry, Claim Assignment and Evaluation, Claim Payment, Recovery Management, and Recovery and Expenses Allocation.

- The Rescheduled Debt Servicing System ("RLOANS") – RLOANS is pertinent for the restructuring and processing of reschedule debt. In the event that a debtor country cannot repay a debt (e.g., in a situation where the debtor country cannot convert local currency to dollars due to the exchange rate), the Paris Club[2] meets to determine a new schedule for repayment through restructuring of public and private sector debts. RLOANS processes the restructured loan details, standardizes billing, and facilitates the payments of recovered amounts.

- The Administrative Accounting Activity ("AAA") – AAA processes all administrative expense transactions, including budget fund control for each appropriation. AAA processes purchase orders, invoices, travel (including sponsored travel), and employee debt. The application also reports on administrative expense activity and stores contact data for vendors who receive payments from Ex-Im Bank.

IV. Oracle General Support System ("Oracle GSS") – Oracle GSS is an Oracle database management system which includes the tools Enterprise Manager, Oracle Business Intelligence Suite, Application Express, and Oracle Enterprise Performance Management System ("Hyperion"). The purpose of this environment is to perform basic data management capabilities to support Ex-Im applications and data warehouse.

To support its mission, the Bank's network infrastructure consists largely of networking devices with various servers running different operating system platforms. The networks are protected from external threats by a range of IT security devices including firewalls, intrusion detection and prevention, antivirus, and spam filtering systems.

The IT environment noted above was evaluated in support of the following significant business operations processes and work streams:

- Medium-Term and Long-Term Loan and Guarantee Applications;
- Working Capital Guarantees;
- Medium-Term Insurance and Guarantees;
- Letter of Interest Applications;
- Application, Participant [3], and Policy Reviews via EOL;
- Single-and Multi-Buyer Insurance;
- Medium-Term Insurance and Guarantees / Long-Term Transactions;

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[2] The Paris Club is an informal group of financial officials from 19 of the world's biggest economies, which provides financial services such as funding, debt restructuring, debt relief, and debt cancellation to indebted countries and their creditors

[3] A "Participant" is anyone involved in the transaction such as the applicant, lender, exporter, supplier, guarantor, etc.

- Participant Verification;
- Transportation Billing and Underwriting; and
- Claims.

OBJECTIVE

The objective of this audit was to determine whether Ex-Im Bank is minimizing the cost and maximizing the usefulness of its key IT systems to meet Ex-Im Bank's mission. The specific audit objectives were to:

- Identify key data and procedures used by Ex-Im Bank to process and monitor its loan, guarantee, and insurance products, as well as loan default and guarantee and insurance claims.
- Identify interoperability of Ex-Im Bank's four critical IT systems: GSS, F&AS, EOL, and Oracle GSS.
- Determine whether Ex-Im Bank's IT systems provide useful information to effectively and efficiently process and monitor activity.
- Identify effectiveness of IT applications and systems as they relate to Ex-Im Bank's operating mission.
- Identify annual expenditures on IT systems and determine the amounts applied to maintain and improve its systems.

SCOPE AND METHODOLOGY

The scope of the audit focused on whether Ex-Im Bank IT systems are able to effectively and efficiently support Ex-Im Bank's mission.

Our audit procedures to support the specific audit objectives were performed with various subject matter experts within the business operations and IT teams. Testing procedures included a mix of inquiries of appropriate personnel, inspection of relevant documentation, and observation of the operations. In addition, where necessary, samples were selected to validate the effectiveness of selected controls and procedures. Samples sizes utilized were aligned with those required by Generally Accepted Government Auditing Standards ("GAGAS"). A listing of acronyms used in this report is included in Appendix B.

Specifically, we met with subject matter experts from the IT System Engineering, IT Security & System Assurance, and Information Management & Technology in the Office of the Chief Information Officer ("OCIO"), including the Chief Information Officer ("CIO"). We also met with subject matter experts in Operations and Data Quality, Trade Finance, Transportation Portfolio Management, Export Finance, Claims and Recoveries, Credit Review and Compliance Division, Office of the Chief Financial Officer, and the Office of General Counsel.

As a part of our audit procedures, we documented the transaction flow of the below selected business operations processes and work streams. These flow charts are included in Appendix A.

- Short-Term, Single-Buyer, Multi-Buyer, Medium-Term Insurance and Medium-Term Guarantees;
- Medium-Term, Long-Term and Working Capital Guarantees, and Long-Term Insurance;
- Transportation Underwriting and Transportation Billing; and
- Claims Processing.

We analyzed data and documentation obtained from Ex-Im Bank subject matter experts, as well as other information available, such as Ex-Im Bank policies and procedures and other authoritative guidance.

We conducted our audit procedures from April 11, 2011 through September 20, 2011.

We conducted this performance audit in accordance with GAGAS. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusion based on our audit objectives.

AUDIT RESULTS

Our audit work revealed that, while the business operations at Ex-Im Bank are functioning and transactions are being processed, the IT systems are not supporting these operations efficiently and effectively. Overall, Ex-Im Bank IT systems and databases do not always capture and manage all necessary data for business needs and antiquated IT applications cause workflow inefficiencies. For instance, Ex-Im Bank's APS, which is in the F&AS and was developed decades ago, cannot handle certain underwriting data necessary for a transaction or capture necessary information related to certain transportation deals. In addition, because not all applications for Ex-Im products are electronically accepted and/or processed in a centralized database and because Ex-Im Bank's IT systems are not integrated, certain key data has to be manually entered into other Ex-Im Bank systems and transaction records hard copied to complete the respective department's processing task(s). Because of these issues data integrity is at risk, resources are not efficiently used, and data gathering and reporting are burdensome and time consuming. In sum, the present IT systems makes it difficult for Ex-Im Bank to provide timely service, effectively manage and track its programs, measure progress, and increase productivity.

Furthermore, Ex-Im Bank does not have practices to effectively manage its strategic planning, IT spending, and the System Development Life Cycle ("SDLC") and Program Change Management ("PCM"). The audit found that: the Office of the Chief Financial Officer does not have sufficient detailed information on the amount of IT spending versus plans and the specific purpose for each expenditure; the Strategic Plan was not formally approved and is not sufficiently comprehensive to coordinate and manage initiatives; and the SDLC and PCM processes are not consistently followed. Failure to have strong controls in these areas prevents management from determining and monitoring the best use of funds to improve IT support of Ex-Im Bank's mission.

Even though all findings we identified have some relation to IT systems, they are all not the direct responsibility of the IT department due to their pervasive nature. The identified findings are provided below and further discussion on each finding is presented in the remaining portion of this report.

A - Business Operations
   A.1   Key IT Applications are Inefficient and Incapable of Capturing Certain Data, Automating Workflow Procedures and Integrating Data.
   A.2   Participant Information Is Not Always Timely and Completely Captured.
B - Information Technology
   B.1   Strategic Planning Process Does Not Address Current and Future Needs.
   B.2   IT Budget and Spending Practices Do Not Provide Adequate Data for Investment Oversight.
   B.3   Ex-Im's Systems Development Life Cycle and Program Change Management Processes Are Not Consistently Followed.

A – BUSINESS OPERATIONS

Ex-Im Bank's IT systems do not fully support its operations and reporting function because IT systems are not integrated and participant data is not effectively and efficiently processed. Data is manually keyed into multiple systems, working files are duplicated by offices for their respective processing, and manual tasks are performed to complete business processes. Also, participant data, which is data related to anyone involved in a transaction such as the applicant, lender, exporter, supplier, guarantor, etc., is not timely and fully captured. While business operations at Ex-Im Bank are functioning and transactions are being processed, Ex-Im Bank's current IT systems inhibit Ex-Im's ability to provide timely service, effectively manage and track its programs, measure progress, identify transaction patterns, and increase productivity. Further details on workflow and participant data are presented below.

Ex-Im Bank's Charter requires Ex-Im Bank to develop and "implement an electronic system designed to track all pending transactions" and to establish and maintain a website through which Bank products may be applied for and to obtain information regarding the status of applications.[4] Office of Management and Budget ("OMB") Circular A-130, *Management of Federal Information Resources*, Appendix III, Security of Federal Automated Information Resources (Revised, Transmittal Memorandum No. 4, 11/28/2000), states: "Agencies must implement the Enterprise Architecture consistent with following principles:

- Develop information systems that facilitate interoperability, application portability, and scalability of electronic applications across networks of heterogeneous hardware, software, and telecommunications platforms;"

- (iii) Applications -- Agencies must identify, define, and organize the activities that capture, manipulate, and manage the business information to support business processes."

While Ex-Im Bank is not required to follow OMB's Circular A-123, *Management's Responsibility for Internal Control*, this circular provides guidance on sound management practices for achieving Ex-Im Bank's mission. Circular A-123 states "Management controls are the organization, policies, and procedures used to reasonably ensure that (i) programs achieve their intended results; (ii) resources are used consistent with agency mission; (iii) programs and resources are protected from waste, fraud, and mismanagement; (iv) laws and regulations are followed; and (v) reliable and timely information is obtained, maintained, reported and used for decision making."

Circular A-123 directs agencies to " … take systematic and proactive measures to (i) develop and implement appropriate, cost-effective management controls for results-oriented management; (ii) assess the adequacy of management controls in Federal programs and operations; (iii) identify needed improvements; (iv) take corresponding corrective action; and (v) report annually on management controls."

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[4] 12 U.S.C. §§ 635(b)(1)(J) and (2)(h).

A.1 Key IT Applications are Inefficient and Incapable of Capturing Certain Data, Automating Workflow Procedures and Integrating Data.

Ex-Im Bank's APS does not have the ability to fully support business processes and products as they have evolved over time. This system was developed decades ago and no longer meets Ex-Im Bank operational needs. Moreover, EOL only handles limited products online. During our review, we noted inefficiencies such as manually re-keying participant data into multiple Ex-Im Bank systems, researching incomplete data (see participant data finding A.2), and searching for and printing of documents relevant to the transaction. Other workflow inefficiencies are detailed below. While we identified no significant errors as a result of these inefficiencies, it was noted that automation of the processes could improve workflow effectiveness and efficiency and provide management with timely and useful information. Furthermore, records automation would reduce potential fraud by ensuring all documents related to one customer are linked.

- Applications for long-term guarantee and loans cannot be submitted online and must be submitted through mail, e-mail or fax. These applications are then manually keyed into the APS and multiple paper copies of the files are then printed and sent to various departments for processing and manual keying of additional data. Manually keying data is an inefficient use of time and also results in the increased risk of incorrect data entry.

- Transportation underwriting data is not captured in APS. The key control in the underwriting approval process is the preparation of the Credit Analysis Memo, which is presented to the Board. This Memo documents the history of the borrower, Ex-Im Bank's current relationship with the borrower, the economic conditions of the borrower, and the borrower's ability to repay the note, among other things. APS was not designed as an underwriting system. APS was designed as a transaction-based system only and therefore does not have the ability to support retaining underwriting documents.

- APS was not designed for the uniqueness and complexity of transportation financing.[5] For the airline industry, for example, APS is unable to capture the level of detail necessary for the processing of each component of the deal when many components make up a deal. For example, one airline deal could include many aircrafts, different amount of co-financing per aircraft, and different co-financing parties per aircraft. Due to the size and complexity of the aircraft deals, the limited information available for each component is both inefficient and results in billing inefficiencies.

- Not all relevant data is transferred between APS, the LG/A system, and the Standard General Ledger system in a timely manner. During our procedures, we noted that the APS and LG/A interface transfers the U.S. portion of the deal first, while the non-U.S. denominated terms are transferred at a later date and that transfers between component tranches in APS require manual adjustment in LG/A. LG/A does not have the capability to process certain transactions in foreign currency. LG/A has difficulty calculating billing in U.S. dollars on a foreign currency tranche. Thus, the Loan and Guarantee Servicing Division manually generates a bill in Microsoft Word. Manual bills require additional processing time (approximately four to six hours) and, due to the amount of detail, require a number of manual reviews and edits. Once finalized, the Loan and Guarantee Servicing Division updates the invoice details in LG/A. With these manual changes,

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[5] As of September 30, 2011, the air transportation sector represented 48.2% of Ex-Im Bank's total exposure, i.e., the authorized outstanding and undisbursed principal balance of loans, guarantees, and insurance.

inconsistencies can develop between APS and LG/A. The inefficiency becomes cyclical, resulting in errors in future bills that require manual adjustment.

- There is no formal policy surrounding working file document management. Currently files are kept either manually, electronically or both. The lack of an Ex-Im Bank working file document management policy results in some departments copying documents for their own files to perform the department's objectives. Because of this practice, employees must spend additional time to locate all associated documents (e.g., original, working, approved, final version, etc.) to complete the transaction processing. Also, the Inspector General's office must extend extraordinary efforts in identifying and gathering all documents associated to a potential case under investigation.

- Transaction Status is not easily apparent in reports generated in Ex-Im Bank Reporting System ("ERS"). A transaction classified as "troubled" could mean it has had a claim filed or could be related to late payments. A "closed" classification could actually mean paid in full or withdrawn. A user must drill down to determine the exact definition.

- Only one designated individual in the Asset Management Division has the knowledge and skill to generate reports on claims. This individual will generate a report from several different data sources, depending on the requested information.

- Numerous databases are independently maintained by Ex-Im staff (i.e., in Microsoft Access and Excel) and are not managed by the OCIO.

- Key documents are difficult to merge for the Department of Justice's use in processing potential fraud cases due to files being password protected.

Recommendations

We recommend that the Executive Vice President and Chief Operating Officer:

1. *Have the business owners individually and in aggregate reevaluate their business requirements and minimum relevant data necessary to process transactions involving complex structures and to monitor business operations. They should then work with the Office of Information Technology to initiate, develop, and test an integrated application that is aligned with those needs and in support of Ex-Im Bank's mission.*

2. *Develop a formal working file document management policy. In developing the formal policy, Ex-Im Bank should additionally a) educate Ex-Im Bank employees to ensure they understand the need to share consistent information across departments; b) establish the means to retain and share working file documents; c) store the policy in a readily accessible medium; and d) implement a mechanism to monitor compliance to the formal policy.*

Management's Response

Recommendation 1:

We agree with the recommendation. The Ex-Im Bank has kicked off the first in a series of processing system projects that are being funded from the IT Investment fund recently made available. The various project plans, including the Participant Hub, Working Capital automation, and Forms consolidation, all start with a detailed and thorough review of business requirements and strategic direction with the business owners. The project plans then establish a Business Stakeholders Steering Committee and a pool of identified business users who will test and review any application development. The Business Stakeholders Steering Committee will have final say on business requirements and on determining whether or not system proposals meet those requirements.

In particular, one of the business operations with extremely complicated structures, Transportation Finance, has begun a streamlining/LEAN exercise. This project is targeted to be completed Summer 2012. As staff has acknowledged that the current processing system is a mill-stone around their neck, one of the final products to be developed will be a detailed set of system requirements that support the new business process. These system requirements will be used in the project plan for "automating" Transportation Finance.

Auditor Comment:

When accomplished, the above action should satisfy this recommendation.

Recommendation 2:

We agree with the recommendation. The Ex-Im Bank will develop a policy based on best practice in the Government. As more applications are handled online (e.g. insurance), the case file is related attachments and artifacts are stored in the document management system used by EOL.

The "Working File" policy will be based on the following parameters:

The National Archives and Records Administration (NARA) define working files as: "rough notes, calculations, or drafts assembled or created and used to prepare or analyze other documents (Also called working papers).

Working files are disposable once a document is finalized unless Working Files are Records. NARA's regulations (36. CFR 1222.34(c)) say that working files are records if:

1. They were circulated or made available to employees, other than the creator, for official purposes such as approval, comment, action, recommendation, follow-up, or to communicate with agency staff about agency business; and
2. They contain unique information, such as substantive annotations or comments included therein, that adds to a proper understanding of the agency's formulation and execution of basic policies, decisions, actions, or responsibilities.

Staff will be provided training to determine which documents in their possession need to be filed and retained as records, and which documents can be safely recycled or destroyed.

Auditor Comment:

Management should also develop a compliance monitoring process. When accomplished, the above action should satisfy this recommendation.

A.2 Participant Information Is Not Always Timely and Completely Captured.

APS and EOL, designed for the processing of loan, guarantee, and insurance products, cannot provide a complete view of participant activity due to difficulty in linking or highlighting duplicate participant data. These weaknesses result in employees researching missing data, difficulty in obtaining accurate and timely reports surrounding the Ex-Im Bank's operations, and preventing Ex-Im Bank and the Office of Inspector General from efficiently conducting forensic analysis to identify possible patterns in transactions.

Certain transactions are processed even though there is missing documentation or information as Ex-Im Bank does not require a unique identifier to be used by participants when applying for a loan guarantee, or insurance or in required reporting to Ex-Im Bank. The following specific items were identified:

- Returning participants cannot be automatically associated with their historical Ex-Im Bank transactions. The Operations and Data Quality Division has been working towards correcting this problem, but not all returning participants have been identified.

- Not all required information, such as shipping address, Data Universal Numbering System ("DUNS") number, and phone numbers, is obtained and recorded in a timely manner. The Operations and Data Quality Division contacts the participant to obtain this information. However, participant information was missing back to August 2010 or nine months past shipment date in some cases. As of May 5, 2011, this Division had 250 shipment reports that needed to be verified. As shipment reports could contain numerous participants, the actual number of participants to be verified is likely larger than 250.

- Accurate reports are not easily available by participant due to incomplete or duplicate participant data. Information on the following reports need to be manually tabulated to achieve a comprehensive view of a participant:

  o Transactions by geographic location or region;
  o Transactions by industry; and
  o Transactions by Ex-Im Bank's product and sub-product line, such as Working Capital Delegated Authority vs. Working Capital.

Management advised us that the unique identifier assigned to each participant upon the submission of an application is not communicated to participants for use on future transactions. Management stated that using a unique identifier which may already exist for participants (i.e., DUNS, tax identification, Social Security Number ("SSN"), etc.) is not always possible. Management further stated that commonly used identifiers, noted above, may not exist across domestic or international companies and companies may have multiple DUNS numbers for multiple locations of their operations. Although personal identifiers are sometimes obtained during a transaction, the information is not retained. For example, individual participant's data such as an SSN is not retained within the system. Management's rationale is that such data is not retained due to security reasons and the amount of transactions involving individuals is small in comparison to the total operations of the business. Even though the last four digits could be maintained, it would not be sufficient to properly link participants' information for key items such as history and relationships.

Required fields for application processing need to be expanded or revised as current requirements are not sufficient for Ex-Im Bank's needs. Existing participants can submit incomplete reporting without a delay in the transaction processing. For example, shipment reports are allowed to be submitted with required fields such as address populated with "TBD" (to be determined).

Ex-Im Bank does not have a centralized master data management policy and procedures to manage participant data flow between its IT applications. The lack of complete and accurate participant data results in difficulty:

- Capturing the necessary data for business owners to transact and monitor business operations on its applications;

- Promptly providing management with business information to support the business process;

- Efficiently using resources, as Ex-Im Bank has dedicated three employees to process applications and reconcile more than 1,800 new participant records per month that are created during the application process. Additionally, two employees spend 100% of their time researching missing participant data and reconciling potential duplicate or related participants in the 300,000 existing participant records already in Ex-Im Bank's systems; and

- Reducing its risk exposure to fraud, due to the limitations regarding the lack of a bank-wide participant unique identifier and the subsequent difficulty in tracking transactions by participant.

Recommendations

We recommend that the Executive Vice President and Chief Operating Officer:

3. *Implement a bank-wide unique identifier to ensure that all new participants can be readily identified and returning participants are associated with their historical transactions.*

4. *Have the business owners revise the required minimum participant data necessary to process an application. Ex-Im Bank should only process applications that meet those minimum criteria.*

5. *Develop a formal data management policy and procedures to ensure complete and accurate participant data is captured in Ex-Im Bank's centralized database and define which information is required for reporting purposes. The policy and procedures should include, as soon as possible, a clear definition and management of participant identification so it can link participants to transactions.*

6. *Require that the formal data management policy and procedures be a) communicated to appropriate Ex-Im Bank employees; b) reviewed annually, updated, and re-communicated accordingly; and c) stored in a readily accessible medium.*

Management's Response

Recommendation 3:

We agree with the recommendation. Ex-Im Bank has kicked off the first in a series of processing system projects that are being funded from the IT Investment fund recently made available. One project which has already commenced is the Participant Hub project. One of the business requirements that has already been identified is that there be a bank-wide unique identifier to ensure that all new participants can be readily identified and returning participants are associated with their historical transactions. The Participant Hub project plan commenced in November 2011 and is projected to be fully implemented by January 2013. With implementation of the Participant Hub, Ex-Im Bank will have a bank-wide unique identifier and processes to ensure that all new participants can be readily identified and returning participants are associated with their historical transactions.

Auditor Comment:

When accomplished, the above action should satisfy this recommendation.

Recommendation 4:

We agree with the recommendation. Ex-Im Bank has kicked off the first in a series of processing system projects that are being funded from the IT Investment fund recently made available. There are two projects moving hand-in-glove. They are the Participant Hub and Forms Consolidation projects. As part of the business requirements process for each project, business users are identifying the minimum required participant information for the Participant Hub and the minimum required participant (and other) information for processing an application. The Participant Hub project plan commenced in November 2011 and is projected to be fully implemented by January 2013. Meanwhile, the Forms Consolidation project started December 2011 and is projected to be implemented by March 2012.

Auditor Comment:

When accomplished, the above action should satisfy this recommendation.

Recommendation 5:

We agree with the recommendation. Ex-Im Bank has kicked off the first in a series of processing system projects that are being funded from the IT Investment fund recently made available. One project which has already commenced is the Participant Hub project. As part of the business requirements process for the project, business users are identifying the appropriate policies and procedures that will need to be established to ensure complete and accurate data is captured and maintained in the Participant Hub and the connected transaction processing systems. The Participant Hub project plan commenced in November 2011 and is projected to be fully implemented by January 2013.

Auditor Comment:

When accomplished, the above action should satisfy this recommendation.

Recommendation 6:

We agree with the recommendation. One of the benefits that Ex-Im Bank hopes to achieve from its processing system projects is full documentation of policies and procedures that will be readily accessible to business users and communicated to the business users. As the projects progress, documentation will be developed and reviewed by the business users.

Auditor Comment:

When accomplished, the above actions should satisfy this recommendation.

B – INFORMATION TECHNOLOGY

Ex-Im Bank does not have practices to effectively manage its strategic planning, IT spending, and the SDLC and PCM. The audit found that the Office of the Chief Financial Officer ("OCFO") does not have sufficient detailed information on the amount of IT spending versus plans and the specific purpose for each expenditure; the Strategic Plan was not formally approved and is not sufficiently comprehensive to coordinate and manage initiatives; and the SDLC and PCM processes are not consistently followed. Failure to have strong controls in these areas prevents management from determining and monitoring the best use of funds to improve IT support of Ex-Im Bank's mission.

B.1 Strategic Planning Process Does Not Address Current and Future Needs.

Ex-Im Bank does not have the necessary IT planning process in place to guide its efforts. Although Ex-Im Bank has an IT Strategic Plan covering fiscal years 2011 through 2014, the plan was not formally approved and it is not sufficiently comprehensive to coordinate and manage initiatives and projects. A comprehensive IT Strategic Plan would describe what Ex-Im Bank seeks to accomplish, identify the strategies it will use to achieve desired results, and provide results-oriented goals and performance measures that permit it to determine whether it is succeeding. Key items including Project Sponsorship, Project Timelines, Project Savings, and Business Drivers were not captured for major IT investment projects, and official approval of the IT Strategic Plan was not evident.

An approved comprehensive IT strategic plan, which is a foundation for effective modernization and is required by federal guidance, would provide Ex-Im Bank with the tool to serve as Ex-Im Bank's IT vision or roadmap and help align its information resources with its business strategies and investment decisions. A comprehensive IT strategic plan identifies what an agency intends to accomplish – if funded - during a given period and helps ensure that the necessary infrastructure is put in place for new or improved capabilities. In addition, a IT strategic plan which identifies interdependencies within and across individual IT systems modernization projects helps ensure that the interdependencies are understood and managed, so that projects and systems are effectively integrated. The lack of a complete, accurate, and formally approved IT Strategic Plan can potentially result in misapplied funds to execute major IT development that do not meet Ex-Im Bank's mission. As discussed above, this audit identified weaknesses in IT, which result in the lack of effective and efficient processing of Ex-Im Bank's business requirements.

Congress and OMB have recognized the importance of IT management controls. The Clinger-Cohen Act, for example, provides a framework for effective IT management that includes systems integration planning, human capital management, and investment management. In addition, the Paperwork Reduction Act requires that agencies have strategic plans for their information resource management, and the E-Government Act of 2002 contains provisions for improving the skills of the federal workforce in using IT to deliver government information and services. Further, OMB has issued guidance on integrated IT modernization planning and effective IT human capital and investment management.

OMB Circular A-130 – Management of Federal Information Resources, Transmittal Memorandum No. 4 directs agencies to establish information system management oversight

mechanisms that (a) ensure that each information system meets agency mission requirements; (b) provide for periodic review of information systems to determine (i) how mission requirements might have changed, (ii) whether the information system continues to fulfill ongoing and anticipated mission requirements and (iii) what level of maintenance is needed to ensure the information system meets mission requirements cost effectively; and (c) ensure that the official who administers a program supported by an information system is responsible and accountable for the management of that information system throughout its life cycle.

OMB Circular A-130 section 7.i., states that "… the agency strategic plan will shape the redesign of work processes and guide the development and maintenance of an Enterprise Architecture and a capital planning and investment control process. This management approach promotes the appropriate application of Federal information resources." Section 7.9.b(1) states "Agencies must establish and maintain a capital planning and investment control process that links mission needs, information, and information technology in an effective and efficient manner. The process will guide both strategic and operational IRM, IT planning, and the Enterprise Architecture by integrating the agency's IRM plans, strategic and performance plans prepared pursuant to the Government Performance and Results Act of 1993, financial management plans prepared pursuant to the Chief Financial Officer Act of 1990 (31 U.S.C. 902a5), acquisition under the Federal Acquisition Streamlining Act of 1994, and the agency's budget formulation and execution processes. The capital planning and investment control process includes all stages of capital programming, including planning, budgeting, procurement, management, and assessment."

As of August 2011, OMB issued M-11-31 placing responsibility on the Chief Operating Officer to lead the agency's efforts to set priority goals; designate a senior official responsible for each goal; and review progress quarterly to improve performance and reduce costs. OMB also issued in August 2011 M-11-29 placing responsibility on the CIO to be responsible and accountable for the operating efficiency of the agency.

Recommendation

We recommend that the Executive Vice President and Chief Operating Officer and the Chief Information Officer:

7. *Collaborate to develop a formally approved robust process for creating a clear and comprehensive IT Strategic Plan according to OMB requirements to effectively support Ex-Im Bank's mission.*

Management's Response

We agree with the recommendation. The Ex-Im Bank will adhere to using the Capital Planning and Investment Control ("CPIC") process to identify investment initiatives and the COO will provide timely goals and objectives. The CIO will develop plans and Cost Benefit Analysis and alternatives and develop a detail IT strategic plan and seek timely approval of plans and funds them for the effective execution of the IT strategic plan.

Auditor Comment:

When accomplished, the above action should satisfy this recommendation.

B.2 IT Budget and Spending Practices Do Not Provide Adequate Data for Investment Oversight.

Ex-Im Bank has a budget process in place, but improvements are needed to report actual versus planned IT spending and manage IT investments. For fiscal year 2010, the total IT budget excluding personnel expenses was $13,485,081.68. However, the actual IT spending data provided by the Treasurer was $13,537,177.53 (as of May 2011) whereas the official record in AAA reported $13,475,531.55 (as of June 2011). This difference occurred due to AAA system limitations, which does not capture plans versus expenditures and does not provide detailed IT expenditure information for OCFO personnel to perform proper review. Furthermore, the official approved budget for IT contained $0 for enhancements, but we noted spending items which may be related to enhancements for critical systems rather than maintenance and operations. While Ex-Im Bank has an executive review board to approve new projects, it does not have a policy to include a formal and robust process to track, review, and monitor the actual IT spending versus plans at the detail level. Without strong management and accountability in selecting and overseeing IT investments, Ex-Im Bank is exposed to the risk that projects will not improve IT support as originally planned.

Although significant IT work has been performed over the last several years, Ex-Im Bank's Information Technology Executive Review Board ("ITERB"), which is made up of senior executives excluding the CIO, has not submitted a request to OMB for an investment since 2008. The ITERB is responsible to approve or preliminarily approve the investment pursuant to a full-blown cost-benefit analysis. Once the ITERB approves an investment, the CIO works with the Budget Officer to conduct a budget analysis and determine sources of funding for the investment. The ITERB prioritizes the investment against other investments in the Ex-Im Bank IT portfolio. While these actions are positive, the ITERB does not track cost and schedule variances to ensure the project will produce the intended results at minimum costs.

The CIO stated that requests for enhancements have not been submitted to the ITERB because the OCIO has not received additional funds the last three years; thus all IT work has been for maintenance and sustainment. However, we identified potential expenditure of fiscal year 2010 IT funds used for enhancements, such as the deployment of new products such as Insurance Express, Supply Chain Facility, and Reinsurance. We estimate that 11% ($1.5M) of expenses of the approved IT budget are enhancements and should not just be classified as sustainment.

In conclusion, our review of IT spending found that funds were not accurately categorized according to OMB CIRCULAR A–11 Section 53 – Information Technology and E-Government. Section 53 provides guidance to allow the agency and OMB to review and evaluate each agency's IT spending. This section defines the amount being spent on development and modernization of IT versus the amount being spent on operating and maintaining the status quo for IT as follows:

- Development/Modernization/Enhancement means the program cost for new investments, changes or modifications to existing systems to improve capability or performance, changes mandated by the Congress or agency leadership, personnel costs for investment management, and direct support.

- Steady State means maintenance and operation costs at current capability and performance level including costs for personnel, maintenance of existing information systems, corrective software maintenance, voice and data communications maintenance, and replacement of broken IT equipment.

By not properly categorizing IT spending, the ITERB had not been provided with critical business user and cost information to prioritize the investment against other investments in the Ex-Im IT portfolio. Also, the ITERB lost the opportunity to be informed on the status and usefulness of IT investments because it had no policy or procedures to monitor and improve project planning and execution.

Recognizing that OMB M-11-29, *Chief Information Officer Authorities,* is not applicable to the items noted above because it was issued on August 8, 2011, this directive is relevant to our recommendation to improve managing IT investments. This memorandum identifies the need to shift the primary responsibilities of the federal CIO, "away from just policy making and infrastructure maintenance, to encompass true portfolio management for all IT." The memo states the following:

> Agency CIOs must be positioned with these responsibilities and authorities to improve the operating efficiency of their agencies. In addition to their statutory responsibilities through the *Clinger-Cohen Act* and related laws, under the IT Reform Plan there are four main areas in which Agency CIOs shall have a lead role:
>
> 1. Governance. CIOs must drive the investment review process for IT investments and have responsibility over the entire IT portfolio for an Agency.
> 2. Commodity IT. Agency CIOs must focus on eliminating duplication and rationalize their agency's IT investments. CIOs must show a preference for using shared services as a provider or consumer instead of standing up separate independent services.
> 3. Program Management. Agency CIOs shall improve the overall management of large Federal IT projects by identifying, recruiting, and hiring top IT program management talent. CIOs will be held accountable for the performance of IT program managers based on their governance process and the IT Dashboard.
> 4. Information Security. CIOs, or senior agency officials reporting to the CIO, shall have the authority and primary responsibility to implement an agency-wide information security program and to provide information security for both the information collected and maintained by the agency, or on behalf of the agency, and for the information systems that support the operations, assets, and mission of the agency.

With responsibilities for these four areas, Agency CIOs will be held accountable for lowering operational costs, terminating and turning around troubled projects, and delivering meaningful functionality at a faster rate while enhancing the security of information systems. These additional authorities will enable CIOs to reduce the number of wasteful duplicative systems, simplify services for the American people, and deliver more effective IT to support their agency's mission.

Recommendations

We recommend that the Executive Vice President and Chief Operating Officer and the Chief Information Officer:

8. *Classify requested and authorized IT funds according to OMB's CIRCULAR A–11 definitions on the development and modernization of IT versus the amount being spent on operating and maintaining the status quo for IT.*

9. *Enhance or replace the AAA system or develop an IT system to provide current information on actual versus planned IT spending to ensure the proper management of IT operation and maintenance spending and investments.*

We recommend that the Executive Vice President and Chief Operating Officer:

10. *Formally direct the CIO on the implementation of the new requirements prescribed in OMB's M-11-29, Chief Information Officer Authorities.*

Management's Response

Recommendation 8:

We agree with the recommendation. The Ex-Im Bank doubled its authorizations since 2008 (more transactions, more disbursements, more documents, more data base support, etc.). This increase of ongoing support and related transactions are NOT status quo. They are operations and maintenance ("O&M") and "sustain engineering".   The Ex-Im Bank uses "Sustain Engineering" for ongoing required maintenance, refresh, and small enhancements for systems. The Ex-Im Bank uses the term "Investment" for major system or programmatic changes (It should be noted that the low end enhancements in OMB are around $5 million dollars). That same definition and approach is used across the Government, especially by small agencies.

The Ex-Im Bank will make budget estimates and distinction between "Fixes" and "Change Requests" in the development cycles to capture these differences. Ex-Im Bank will continue to use the Government-wide use of the context of the Exhibit 53 and intent of circular A-11 for large investments. Ex-Im Bank will ensure the Executive Working Group ("EWG") is involved and monitor the "sustain engineering" tasks as well as the major investments used as part of the Exhibit 53.

Auditor Comment:

When accomplished, the above action should satisfy this recommendation.

Recommendation 9:

We agree with the recommendation. The CFO and CIO have established a team to evaluate the enhancement/replacement of AAA with a financial core (FMLOB) budgeting system. This initiative is included in the OCIO strategic plan and includes a system capable of tracking planning, obligation, and actual information. Execution of this plan is dependent on "INVESTMENT" funding being made available for the initiative. Since 2008, this initiative was being evaluated for funding. Planning, requirement, and alternatives documentation was prepared. The next step is to update that documentation, attend demos, and seek budget and resources to pursue this goal.

Auditor Comment:

When accomplished, the above action should satisfy this recommendation.

Recommendation 10:

We agree with the recommendation. A number of these guidance and objectives are already in place. The Ex-Im Bank is a small agency and all of IT is managed by the OCIO.

Plans are to be executed in the next 9 month to transfer email to the cloud. The continuity of operations ("COOP") capability is already deployed in the cloud and a web site service through the cloud is being reviewed for security and cost effectiveness.

Lean and Agile development processes are going to be implemented as part of the investment fund execution that includes the 'Participant Hub, Working Capital automation, and Forms consolidation.

Auditor Comment:

When accomplished, the above action should satisfy this recommendation.

B.3   Ex-Im's Systems Development Life Cycle and Program Change Management Processes Are Not Consistently Followed.

Ex-Im Bank has an SDLC, which includes a PCM process, in place. However, Ex-Im Bank's SDLC process was not consistently followed to implement the ERS system.   The SDLC provides a structured and standardized process for all phases of any system development effort, integration and testing, deployment and acceptance, and finally to system retirement. Ex-Im System Development Life Cycle Policy, Version 1.0, pages 11, 7 and 9, respectively state the following:

> "Data management, configuration management, and quality assurance must be considered throughout the system life cycle. The project manager will create and maintain the SDLC deliverables …"

> "…Manage IT projects as investments. Proposed Automated Information System ("AIS") or IT infrastructure projects must be supported by a business case that includes
> - an analysis of the expected costs and benefits for a project
> - alternative solutions considered
> - potential programmatic and technical risks
> - outcomes and performance measures: the overall contribution of the project to Bank's missions, goals, and objectives…"

> "…End-user participation and involvement throughout life cycle activities is crucial to the success of each project. End-users must participate early in any AIS project in order to obtain clear, validated functional requirements, and to provide user acceptance testing… End-users must be provided with initial training to support a newly installed AIS or IT infrastructure system and receive additional training necessary to effectively use system modifications and enhancements…"

We identified the following findings:

- No evidence was provided to show that master data management procedures are in place to manage participant data flow from the EOL and F&AS to the ERS;

- No evidence was provided to show that a Business Needs Analysis was performed for the ERS implementation;

- No evidence was provided to show that there was formal management approval of test plans and the "Go-Live" decision for the ERS implementation; and

- No actual training attendance records exist for the ERS implementation to evidence that business users were adequately trained prior to implementation.

Additionally, Ex-Im Bank's PCM process – User Acceptance Testing ("UAT") -- as directed in Ex-Im System Development Life Cycle Policy, Version 1.0, Page 9, was not consistently followed to implement system changes to the EOL and FAS systems.   We identified the following finding:

- No evidence was provided to show that UAT was performed in 100% of the change requests to ensure that system changes were functioning properly or met the stated

business requirements for modifications to critical application functionality for EOL and F&AS.

Without consistent adherence to Ex-Im's SDLC, including the PCM process, new systems or modification to existing systems may negatively impact business users' needs and result in the ineffective and inefficient use of technology in support of Ex-Im's mission.

Recommendation

We recommend that the Executive Vice President and Chief Operating Officer and the Chief Information Officer:

> 11. *Ensure Ex-Im Bank's SDLC process is consistently followed when implementing major systems and performing system changes.*

Management's Response

We agree with the recommendation. In addition, the Ex-Im Bank is planning to use the Lean "Agile Development Methodology" to replace its existing heavy structured SDLC processes to ensure "delivering meaningful functionality at a faster rate while enhancing the security of information systems. These additional authorities will enable CIOs to reduce the number of wasteful duplicative systems, simplify services for the American people, and deliver more effective IT to support their agency's mission"

Lean Agile principles "promote a development lifecycle that includes frequent inspections with small incremental tasks; supports collaboration and self-organization; and encourages the fast delivery of high-quality software." Lean Agile development principles include:

- o Individuals and interactions over processes and tools.
- o Working software over comprehensive documentation.
- o Customer collaboration over contract negotiation.
- o Responding to change over following a plan

Auditor Comment:

When accomplished, the above action should satisfy this recommendation.

APPENDIX A – BUSINESS OPERATION FLOWCHARTS

As a part of our audit procedures, we documented the transaction flow of selected business operations processes and work streams including the following:

- Short-Term, Single-Buyer, Multi-Buyer, Medium-Term Insurance and Medium-Term Guarantees;
- Medium-Term, Long-Term and Working Capital Guarantees, and Long-Term Insurance;
- Transportation Underwriting and Transportation Billing; and
- Claims Processing.

Products: Short Term Insurance, Single Buyer Insurance, Multi-Buyer Insurance, Medium Term Insurance and Medium Term Guarantees	
Operations & Data Quality	**Processing / Underwriting**
Application: EXIM On Line	**Application: EXIM Online**

Operations & Data Quality — Application: EXIM On Line

- Prospective
- Enter borrower info
- Internet
- EXIM Online
- Suitable for EOL? — No → T o APS
- Yes
- Operations & Data Quality reviews
- Complete & Appropriate? — No → Prospective → Requested docs (may be electronic)
- When complete, update EOL
- Update EXIM Online
- Store all supporting docs in EOL
- EXIM Online
- EOL routes to processing (underwriting)

Processing / Underwriting — Application: EXIM Online

- EXIM Online
- UW reviews in EXIM Online

Underwriting can include any number of EXIM divisions to assess & price the risk.

Additional contact with the prospective insured proceeds, as necessary.

- Underwriting process
- Approved? — No → End
- Yes
- Enter approval in EXIM Online & Prepare UW Memo
- Undwriting Memo
- Store Underwiritnng Memo in EOL
- Update EXIM Online with UW terms
- EXIM Online
- Prepare Policy
- Opeations & Data Quality reviews
- Policy (electronic format)
- Insured

Products: Mid Term Guarantees, Long Term Insurance, Long Term Guarantees & Working Capital

Operations & Data Quality	Processing (Underwriting)	Legal
Application: APS	Application: APS	Application: APS

Operations & Data Quality

Prospect ve

Submiss on can be ma , fax & ema .

Application

From EXIM Onl ne

Search for part cipant in APS

Existing partic pant?

No → Create new part cipant

Yes → Link new transact on to existing part cipant

Enter applica ton nto APS

APS

Organ ze subm tted docs and route to UW

App cat on Docments

Processing (Underwriting)

App cation Documents

Underwr ting can include any number of EXIM d v sions to assess & pr ce the r sk.

Add t ona contact with the prospective nsured proceeds, as necessary.

Underwr t ng process

Update APS with UW terms, condit ons, etc.

APS

Prepare UW Memo for Board rev ew

Prepare Credit UW Memo

Board rev ew to approve / not approve

Approved?

Yes →

No → End

Legal

Update APS w th UW terms, conditions, etc.

APS

Pr nt oan / product docs

Loan Docs

To Lega Dept for docs preparation

S gned and Fina Agreement

Insured

Transportation Underwriting		Transportation Billing
Application: APS	Application: None Noted	Application: LG/A

Transportation Underwriting — Application: APS

- Completed and Approved
- Underwriting process
- Update APS with UW terms, conditions, etc.
- APS
- Prepare UW Mem for Board review
- Prepare Credit UW Memo
- Board review to approve / not approve
- Approved? → No → E
- Update APS with UW terms, conditions, etc.
- APS → Print loan / product docs → Loan Docs
- Nightly interface with LG/A

Application: None Noted

- To Legal Dept for docs preparation
- Signed and Final Agreement
- File

Transportation Billing — Application: LG/A

- LG/A
- Print
- Invoice
- Manually review invoice for correction
- Approved? → No → Manually adjust invoice in LG / A
- Customer End

Includes, but is not limited to, a review of the following:
1.) Compenents
2.) Roll over of tranches
3.) Price fees

Claims Processing

Application: CARDS

Front Desk	Claims Officer	Contractor	Managing Director (Richard Brackley)	Approval	Office of the CFO Cash Disbursements	Cash Receipt

Front Desk

Insured

EXIM Loss Form

Entered into CARDS

CARDS

Based on claim type route to Claims Officer

Claims Officer

C

Claims Officer assigns a Contractor

CARDS

Assess Contractor's assessment. Approve / Adjust as necessary

Entered into CARDS

CARDS

CARDS is configured for approval authorities.

Each night CARDS sends claims data to LG/A → LG/A

Prepare Claims Memo for claims payment processing

Claims Memo

Additional approvals necessary? — Yes → A

No → B

For approved claims begin collection efforts

Assign a collection agency

CARDS

CARDS is configured for approval authorities.

Each night CARDS sends claims data to LG/A → LG/A

D

Contractor

Contractor assesses coverages & develops initial loss estimate

Entered into CARDS

Entered via remote

Contractor assesses coverages & develops initial loss estimate

Entered into CARDS

Entered via remote

Managing Director (Richard Brackley)

A

Approve? — No → C

Yes

Approve Memo

Claims Memo

Additional approvals necessary?

B

Approval

Approve? — No → C

Yes

Approve Memo

Claims Memo

Office of the CFO Cash Disbursements

B

Review Memo for Approvals

Compare approved pmts to LG/A

LG / A

Disburse funds via Treasury's Secure Payment System

Claimant

Cash Receipt

D

Cash Receipts

Enter into LG/A

LG / A

Prepare 122P listing unapplied cash receipts

122P

Program Mgt Assistants review claims and apply

LG / A

End

APPENDIX B – ACRONYMS

AAA	Administrative Account Application
AIS	Automated Information System
APS	Application Processing System
BDO	BDO USA, LLP
CARDS	Claims and Recovered Debt Servicing System
CIO	Chief Information Officer
COOP	Continuity of Operations
CPIC	Capital Planning and Investment Control
DUNS	Data Universal Numbering System
EOL	EXIM Online
ERS	Ex-Im Bank Reporting System
EWG	Executive Working Group
Ex-Im Bank or Ex-Im	Export-Import Bank of the United States
F&AS	Financial and Administrative System
GAGAS	Generally Accepted Government Auditing Standards
GSS	Infrastructure General Support System
IIS	Integrated Information System
IT	Information Technology
ITERB	Information Technology Review Board
LG/A	Loan and Guarantee Accounting System
O&M	Operations and Maintenance
OCFO	Office of the Chief Financial Officer
OCIO	Office of the Chief Information Officer
OIG	Office of Inspector General
OMB	Office of Management and Budget
Oracle GSS	Oracle General Support System
PCM	Program Change Management
RLOANS	Rescheduled Debt Servicing System
SDLC	Systems Development Life Cycle
SSN	Social Security Number
UAT	User Acceptance Testing
U.S.	United States

APPENDIX C – MANAGEMENT'S RESPONSE

SEE NEXT PAGE

EXPORT-IMPORT BANK
OF THE UNITED STATES

January 13th, 2012

Mr. Osvaldo L. Gratacós
Inspector General
Office of the Inspector General
Export-Import Bank of the United States
811 Vermont Avenue NW
Washington, DC 20571

Dear Inspector General Gratacós,

Thank you for providing Ex-Im Bank management with the Office of the Inspector General
(OIG)'s Audit of IT Support for Ex-Im Bank's Mission.

Bank management concurs with all of your office's findings. Please find detailed responses to
each OIG recommendation from the Bank's Chief Information Officer and its Vice President for
Data Quality and Operations attached to this letter.

The Bank has embarked on a series of system improvement projects to address many the issues
the Report identifies. In particular, we would like to draw your attention to three ongoing IT
projects which began in November and December 2011—immediately after FY2011 funding
was made available by Congress and OMB and properly obligated. The Participant Hub project,
which will be fully implemented by January 2013, will create a bank-wide, unique identifier for
each participant, resolving many of the data management concerns that you highlight. In
addition, the Bank has embarked on a Forms Consolidation project to evaluate the minimum data
necessary for a transaction and align documentation accordingly. The initial phase of this project
(conducted on a subset of forms) should be completed by May 2012. Finally, our Working
Capital Automation project will further reduce unnecessary or duplicative processes. As you
suggest in your report, the relevant business owners will be deeply involved all three of these
projects through a Business Stakeholders User Committee.

Regarding your recommendation on the AAA financial systems, we would direct your attention
to a team that the OCFO and OCIO already have in place to evaluate replacement of AAA with a
core financial budgeting system. The team has already completed planning, requirement
specifications, and alternatives analysis for the project. Implementation of these plans has been
contingent on availability of funding since 2008. With newly available funding in the Bank's
FY2012 appropriations language, moving forward with this project is one of our highest
priorities.

While we agree with all the OIG's recommendations, we would also like to express a difference of opinion with the report's definition of funds expended on "status quo" IT operations and management versus IT "development and investment". As our CIO explains in her response, the Bank's unprecedented increase in workload since 2008 is not a "status quo" operations and management situation. Rather, the Bank defines its IT efforts to cope with the extraordinary growth as a program of "sustain engineering." Sustain engineering includes ongoing required maintenance, system refreshes, and small enhancements as needed. The Bank considers "investment" to be a major and programmatic change, in line with the OMB definitions. However, the Bank will include a distinction in budget estimates between "Fixes" and "Change Requests" in future development cycles in order to better capture these differences.

Finally, we are pleased to inform the OIG that since Congress has made incremental funding available for IT the Bank has engaged independent consultants from the MITRE Corporation to help guide us through our IT investment and modernization process. We hope that as our consultations with MITRE progress, we can resolve many of the underlying IT and systems issues that you identify.

Thank you again for the OIG's efforts to improve Ex-Im Bank's IT infrastructure and to ensure that the Bank's systems and policies are aligned with its mission. We appreciate your hard work and input and look forward to continuing to work closely with the OIG.

Sincerely,

Alice P. Albright, CFA
Chief Operating Officer & Executive Vice President
Export-Import Bank of the United States

CC: Fred P. Hochberg
     Chairman & President
     Export-Import Bank of the United States

     Mike Cushing
     Senior Vice President for Resource Management
     Export-Import Bank of the United States

December 23, 2011

MEMORANDUM

To: **Jean Smith**
             Assistant Inspector General for Audit

From: **Fernanda Young**
             Chief Information Officer

Subject: ***Audit of Information Technology Support for Export-Import Bank's Mission***
             (OIG-xx-11-xx, December 16, 2011 (Revision) – Response to
             recommendations.

        We appreciate your providing us with an opportunity to review a draft of the report and
the cooperation and subsequent reviews of the document with your auditors.

        With regard to your memorandum of November 25, 2011, and the revision of the draft
document dated December 16, 2011, following are management's response to the six
recommendations from the BDO USA, LLP ("BDO") report provided during their audit of the
Information Technology Support for Export-Import Bank's Mission. Management responses to
recommendations 2, 7-11 are included in this letter.

        In addition to the specific audit objectives described in page *i* of the BDO report, the
auditor did perform a number of core IT audit tasks and IT security controls of the IT systems.
The core infrastructure IT capabilities of the Ex-Im Bank are solid and effective. In FY 2011, Ex-
Im Bank a) enhanced its security posture and oversight for its handling of sensitive information;
b) performed annual reviews of IT policies and procedures; c) performed a network and public
facing application penetration testing with no major or minor vulnerability findings; d) exercised
its continuity of operations plan including participation in Eagle Horizon 10 and disaster recovery
testing for its major applications and e) implemented a large number of infrastructure refresh
tasks. During that same period, a large number of business applications sustain engineering
tasks were implemented through five major mission critical releases of the Financial and
Administrative Systems (F&A) and the EXIM Online (EOL) public facing system.

        Management agrees with the recommendations described in the BDO report. The Bank
has submitted requests for funding to upgrade its old custom designed (1990-type) applications
systems and will continue to enhance and improve on its processes and using technology as a

resource multiplying strategy for supporting the expanding mission of the Ex-Im Bank supporting the National Export Initiative (NEI).

The following letter addresses the recommendations 2 and 7 to 11.

Recommendation 2

We recommend that the Executive Vice President and Chief Operating Officer:

> 2) *Develop a formal working file document management policy. In developing the formal policy, Ex-Im Bank should additionally a) educate Ex-Im Bank employees to ensure they understand the need to share consistent information across departments; b) establish the means to retain and share working file documents; c) store the policy in a readily accessible medium; and d) implement a mechanism to monitor compliance to the formal policy.*

Management Response - AGREE

We agree with the recommendation- The Ex-Im Bank will develop a policy based on best practice in the Government. As more applications are handled online (e.g. insurance), the case file is related attachments and artifacts are stored in the document management system used by EOL.

The "Working File" policy will be based on the following parameters:

The National Archives and Records Administration (NARA) define working files as: "rough notes, calculations, or drafts assembled or created and used to prepare or analyze other documents (Also called working papers).

Working files are disposable once a document is finalized unless Working Files are Records.

NARA's regulations (36. CFR 1222.34(c)) say that working files are records if:

1. *They were circulated or made available to employees, other than the creator, for official purposes such as approval, comment, action, recommendation, follow-up, or to communicate with agency staff about agency business; and*

2. *They contain unique information, such as substantive annotations or comments included therein, that adds to a proper understanding of the agency's formulation and execution of basic policies, decisions, actions, or responsibilities.*

Staff will be provided training to determine which documents in their possession need to be filed and retained as records, and which documents can be safely recycled or destroyed

Recommendation 7

We recommend that the Executive Vice President and Chief Operating Officer and the Chief Information Officer:

    3) *Collaborate to develop a formally approved robust process for creating a clear and comprehensive IT Strategic Plan according to OMB requirements to effectively support Ex-Im Bank's mission.*

Management Response - AGREE

We agree with this recommendation. The Ex-Im Bank will adhere to using the Capital Planning and Investment Control (CPIC) process to identify investment initiatives and the COO will provide timely goals and objectives. The CIO will develop plans and Cost Benefit Analysis and alternatives and develop a detail IT strategic plan and seek timely approval of plans and funds them for the effective execution of the IT strategic plan.

Recommendation 8, 9, 10

We recommend that the Executive Vice President and Chief Operating Officer and the Chief Information Officer:

    8) *Classify requested and authorized IT funds according to OMB's CIRCULAR A–11 definitions on the development and modernization of IT versus the amount being spent on operating and maintaining the status quo for IT.*

    9) *Enhance or replace the AAA system or develop an IT system to provide current information on actual versus planned IT spending to ensure the proper management of IT operation and maintenance spending and investments.*

We recommend that the Executive Vice President and Chief Operating Officer:

    10) *Formally direct the CIO on the implementation of the new requirements prescribed in OMB's M-11-29, Chief Information Officer Authorities.*

Management Response - AGREE

Management Response 8- *We agree with the recommendation. The Ex-Im Bank doubled its authorizations since 2008 (more transactions, more disbursements, more documents, more data base support, etc.). This increase of ongoing support and related transactions are NOT Status quo. They are O&M and "sustain engineering". The Ex-Im Bank uses "Sustain Engineering" for*

ongoing required maintenance, refresh and small enhancements for systems. The Ex-Im Bank uses the term "Investment" for Major system or programmatic changes (It should be noted that the low end enhancements in OMB are around $5 million dollars). That same definition and approach is used across the Government, especially by small agencies.

The Ex-Im Bank will make budget estimates and distinction between "Fixes" and "Change Requests" in the development cycles to capture these differences. The Bank will continue to use the Government-wide use of the context of the Exhibit 53 and intent of circular A-11 for large investments. The Bank will ensure the EWG is involved and monitor the "sustain engineering" tasks as well as the major investments used as part of the Exhibit 53.

<u>Management Response 9-</u> *We agree with the recommendation- The CFO and CIO have established a team to evaluate the enhancement/replacement of AAA with a financial core (FMLOB) budgeting system. This initiative is included in the OCIO strategic plan and includes a system capable of tracking planning, obligation, and actual information. Execution of this plan is dependent on "INVESTMENT" funding being made available for the initiative. Since 2008, this initiative was being evaluated for funding. Planning, requirement, and alternatives documentation was prepared. The next step is to update that documentation, attend demos, and seek budget and resources to pursue this goal.*

<u>Management Response 10-</u> *We agree with the recommendation- A number of these guidance and objectives are already in place. The Ex-Im Bank is a small agency and all of IT is managed by the OCIO.*

Plans are to be executed in the next 9 month to transfer email to the cloud. The COOP capability is already deployed in the cloud and a web site service through the cloud is being reviewed for security and cost effectiveness.

Lean and Agile development processes are going to be implemented as part of the investment fund execution that includes the 'Participant Hub, Working Capital automation, and Forms consolidation).

Recommendation 11

We recommend that the Executive Vice President and Chief Operating Officer and the Chief Information Officer:

> *11) Ensure Ex-Im Bank's SDLC process is consistently followed when implementing major systems and performing system changes.*

Management Response - AGREE

We agree with the recommendation. In addition, the Ex-Im Bank is planning to use the Lean "Agile Development Methodology" to replace its existing heavy structured SDLC processes to ensure "delivering meaningful functionality at a faster rate while enhancing the security of information systems. These additional authorities will enable CIOs to reduce the number of

wasteful duplicative systems, simplify services for the American people, and deliver more effective IT to support their agency's mission"

Lean Agile principles "promote a development lifecycle that includes frequent inspections with small incremental tasks; supports collaboration and self-organization; and encourages the fast delivery of high-quality software." Lean Agile development principles include:

>*Individuals and interactions over processes and tools*
>*Working software over comprehensive documentation*
>*Customer collaboration over contract negotiation*
>*Responding to change over following a plan*

cc: Osvaldo Gratacos, Inspector General
          Alice Albright, Chief Operating Officer
          Michael Cushing, Senior Vice President, Resource Management
          David Sena, Acting Chief Financial Officer and Audit Liaison
          Patricia Wolf, Financial Reporting Supervisor
          John Lowry, Director, Information Technology Security and System Assurance

EXPORT-IMPORT BANK
of the UNITED STATES

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January 10, 2012

MEMORANDUM

To: **Jean Smith**
             Assistant Inspector General for Audit

From: **Alice Albright**
             Chief Operating Officer

Subject: *Audit of Information Technology Support for Export-Import Bank's Mission*
             (OIG-xx-11-xx, December 16, 2011 (Revision) – Response to
             recommendations.

        We appreciate your providing us with an opportunity to review a draft of the report and the cooperation and subsequent reviews of the document with your auditors.

        With regard to your memorandum of November 25, 2011, and the revision of the draft document dated December 16, 2011, following are management's response to five of the recommendations from the BDO USA, LLP ("BDO") report provided during their audit of the Information Technology Support for Export-Import Bank's Mission. Management responses to recommendations 1, 3-6 are included in this letter.

        Management agrees with the recommendations described in the BDO report. The Bank has submitted requests for funding to upgrade its old custom designed (1990-type) applications systems and will continue to enhance and improve on its processes and using technology as a resource multiplying strategy for supporting the expanding mission of the Ex-Im Bank supporting the National Export Initiative (NEI).

        The following letter addresses the recommendations 1 and 3 to 6.

<u>**Recommendation 1**</u>

We recommend that the Executive Vice President and Chief Operating Officer:

   1) *Have the business owners individually and in aggregate reevaluate their business*
      requirements and minimum relevant data necessary to process transactions
      involving complex structures and to monitor business operations. They should

then work with the Office of Information Technology to initiate, develop, and test an integrated application that is aligned with those needs and in support of Ex-Im Bank's mission.

Management Response - AGREE

We agree with the recommendation - The Ex-Im Bank has kicked off the first in a series of processing system projects that are being funded from the IT Investment fund recently made available. The various project plans, including the Participant Hub, Working Capital automation, and Forms consolidation, all start with a detailed and thorough review of business requirements and strategic direction with the business owners. The project plans then establish a Business Stakeholders Steering Committee and a pool of identified business users who will test and review any application development. The Business Stakeholders Steering Committee will have final say on business requirements and on determining whether or not system proposals meet those requirements.

In particular, one of the business operations with extremely complicated structures, Transportation Finance, has begun a streamlining/LEAN exercise. This project is targeted to be completed Summer 2012. As staff has acknowledged that the current processing system is a mill-stone around their neck, one of the final products to be developed will be a detailed set of system requirements that support the new business process. These system requirements will be used in the project plan for "automating" Transportation Finance.

Recommendation 3 - 6

We recommend that the Executive Vice President and Chief Operating Officer:

3) *Implement a bank-wide unique identifier to ensure that all new participants can be readily identified and returning participants are associated with their historical transactions.*

4) *Have the business owners revise the required minimum participant data necessary to process an application. Ex-Im Bank should only process applications that meet those minimum criteria.*

5) *Develop a formal data management policy and procedures to ensure complete and accurate participant data is captured in Ex-Im Bank's centralized database and define which information is required for reporting purposes. The policy and procedures should include, as soon as possible, a clear definition and management of participant identification so it can link participants to transactions.*

6) *Require that the formal data management policy and procedures be a) communicated to appropriate Ex-Im Bank employees; b) reviewed annually, updated, and re-communicated accordingly; and c) stored in a readily accessible medium.*

2

Management Response - AGREE

Management Response 3 - *We agree with the recommendation - Ex-Im Bank has kicked off the first in a series of processing system projects that are being funded from the IT Investment fund recently made available. One project which has already commenced is the Participant Hub project. One of the business requirements that has already been identified is that there be a bank-wide unique identifier to ensure that all new participants can be readily identified and returning participants are associated with their historical transactions. The Participant Hub project plan commenced in November 2011 and is projected to be fully implemented by January 2013. With implementation of the Participant Hub, Ex-Im Bank will have a bank-wide unique identifier and processes to ensure that all new participants can be readily identified and returning participants are associated with their historical transactions.*

Management Response 4 - *We agree with the recommendation - Ex-Im Bank has kicked off the first in a series of processing system projects that are being funded from the IT Investment fund recently made available. There are two projects moving hand-in-glove. They are the Participant Hub and Forms Consolidation projects. As part of the business requirements process for each project, business users are identifying the minimum required participant information for the Participant Hub and the minimum required participant (and other) information for processing an application. The Participant Hub project plan commenced in November 2011 and is projected to be fully implemented by January 2013. Meanwhile, the Forms Consolidation project started December 2011 and is projected to be implemented by March 2012.*

Management Response 5 - *We agree with the recommendation- Ex-Im Bank has kicked off the first in a series of processing system projects that are being funded from the IT Investment fund recently made available. One project which has already commenced is the Participant Hub project. As part of the business requirements process for the project, business users are identifying the appropriate policies and procedures that will need to be established to ensure complete and accurate data is captured and maintained in the Participant Hub and the connected transaction processing systems. The Participant Hub project plan commenced in November 2011 and is projected to be fully implemented by January 2013.*

Management Response 6 - *We agree with the recommendation- One of the benefits that Ex-Im Bank hopes to achieve from its processing system projects is full documentation of policies and procedures that will be readily accessible to business users and communicated to the business users. As the projects progress, documentation will be developed and reviewed by the business users.*

cc: Osvaldo Gratacos, Inspector General
   Michael Cushing, Senior Vice President, Resource Management
   David Sena, Acting Chief Financial Officer and Audit Liaison
   Fernanda Young, Chief Information Officer
   Michele Kuester, Vice President, Operations and Data Quality
   Patricia Wolf, Financial Reporting Supervisor