



**U.S. SMALL BUSINESS ADMINISTRATION
OFFICE OF INSPECTOR GENERAL
WASHINGTON, D.C. 20416**

Memorandum Report
Report: 16-07

DATE: December 18, 2015

TO: Maria Contreras-Sweet
Administrator

Douglas Kramer
Deputy Administrator

Stephen W. Kucharski
Director
Office of Performance and System Management

Keith A. Bluestein
Deputy Chief Information Officer
Office of the Chief Information Officer

FROM: Troy M. Meyer /s/
Assistant Inspector General for Audit

SUBJECT: *Loan Management and Accounting System
Incremental Improvement Projects Progress*

This memorandum presents results of our review of the Small Business Administration's (SBA) Loan Management and Accounting System (LMAS) Incremental Improvement Projects (IIPs) progress. The objective of our review was to evaluate SBA's progress in implementing the remaining LMAS IIPs.

The report contains one recommendation that SBA agreed to implement. Please provide us within 90 days your progress in implementing the recommendations.

Background

The Loan Accounting System is the core data system used to account for SBA's approximately \$115 billion loan portfolio. In November 2005, SBA initiated the LMAS project to upgrade existing financial software and application modules in SBA's Loan Accounting System. The system was close to the end of its expected useful life, relied on obsolete technology, and contained major security vulnerabilities.

In 2010, the original LMAS project was restructured from a large project into a series of focused and cost-effective software upgrades and data migration projects, or IIPs. The overall objective of these information technology (IT) projects was to modernize existing software and move LMAS off its legacy platform to a non-proprietary platform. While a majority of these projects were

completed prior to our review, as of July 2014, when our review began, SBA had yet to migrate the remaining user interface screens from SBA's mainframe to their current web-based infrastructure, and the related data processed through these screens off of SBA's mainframe environment.

Prior Work

During the initial LMAS project phase, the Office of Inspector General (OIG) performed a series of reviews identifying weaknesses in planning and executing the project. Due to cost overruns and schedule delays, the LMAS project was the subject of a Government Accountability Office (GAO) review and a Congressional hearing.^{1, 2} In March 2013, OIG issued an assessment of the LMAS IIPs' planning, management, and oversight efforts.³ This report recommended an additional IIP to complete the project as well as improved security testing and quality assurance procedures. In September 2014, OIG continued its project oversight through its assessment of SBA's compliance with its SOPs and related Federal IT investment controls.⁴ This report identified a continued need to follow Agency guidance in-system development and enterprise architecture and to improve project oversight.

Objective

Our objective was to evaluate SBA's progress in implementing the remaining LMAS IIPs.⁵

Results

In January 2015, SBA completed its remaining IIPs and fully migrated all core financial components off the mainframe. This effort is significant because it marked the completion of the LMAS IIPs and ended SBA's reliance on proprietary mainframe software. Completed project milestones included the migration of user interfaces and the migration to a hosted site. As of August 2015, SBA's Office of Capital Access (OCA) reported to OIG that they utilized \$93.4 million of their \$97.3 million revised budget for LMAS IIPs.⁶

User Interface Migration

Since our last review in 2014, we noted delays in migrating the interface screen used by the Office of Investment and Innovation (OII). Previously scheduled for completion in 2013, OII continued to use the mainframe screens until they were retired. However, our interviews found that because certain functionalities for small business investment companies (SBIC) loan accounts were not

¹ Report GAO-12-295, *SBA Needs to Strengthen Oversight of Its Loan Management and Accounting System Modernization* (January 2012).

² Full Committee Hearing, "Placing Federal Tax Dollars at Risk: How the Small Business Administration Mismanages the Modernization of its Information Technology" (February 1, 2012).

³ Audit Briefing Report 13-11, *The SBA's Loan Accounting and Management System – Incremental Improvement Projects* (March 12, 2013).

⁴ Evaluation Report 14-21, *Review of LMAS Incremental Improvement Projects* (September 2014).

⁵ See Attachment for a detailed discussion of our objectives, scope, and methodology.

⁶ This \$93.4 million budget includes operations and maintenance and project management support. However, the budget shows contractor costs only and does not include full-time Government employees. "Operations and maintenance" includes both OCA's and Office of the Chief Financial Officer's operations and maintenance costs. Project management support included (1) quality assurance, including independent verification and validation; and (2) the project management office. The sources of LMAS funds were further evaluated as part of a separate review.

initially included with the initial interfaces, SBA needed subsequent enhancements to allow SBIC required financial data to be processed.⁷

Transition to Production

After postponing the original August 2014 production goal, SBA successfully tested and migrated the new system to the SBA headquarters datacenter in January 2015. In February 2015, SBA decommissioned the mainframe applications,⁸ and in April 2015, moved the new system from SBA headquarters to the Agency's hosted environment.

During the transition to the hosted environment, SBA generally complied with its system development method criteria. Specifically, SBA performed multiple tests required by SBA's system development method, which included system, integration, performance, and user acceptance tests to ensure the new system operated properly. The migration team also compared the beginning and ending account balances with the transactions daily, and Office of the Chief Financial Officer personnel verified critical files were received and formatted correctly.

However, prior to migrating to the hosted environment, SBA should have updated the system risk assessment and performed a security impact analysis. Under the guidance outlined in SOP 90-47-3, if there has been a change in system boundaries, program offices must perform a risk assessment and a security impact analysis prior to making a change. The security impact analysis assesses the effects of changes to the overall security posture and ensures that security features are still functioning after the system is modified. Because SBA did not take these measures, it cannot be sure that all security controls were in place and functioning properly after the migration.

Closing of Prior Audit Recommendations

As summarized in the table below, seven LMAS recommendations related to our FYs 2013 and 2014 evaluations were not completed at the beginning of our review. Since then, the Office of the Chief Information Officer (OCIO) and OCA met the requirements and completed six of the seven recommendations directly related to the completion of the migration project. OCIO is working to complete the remaining recommendation, to include the new loan accounting system in SBA's updated enterprise architecture roadmap.

⁷ SBICs are private investment firms licensed by SBA. The SBIC Program provides SBA-guaranteed leverage to SBICs that, in turn, make loans and equity investments in qualifying small businesses.

⁸ This process includes sanitizing disks, excessing hardware, and destroying proprietary mainframe data files and documentation.

Table 1: LMAS Recommendations

Status	Report	Rec.	Recommendation
Closed	13-11	1	We recommend that the SBA adopt a new IIP under LMAS to facilitate the transfer of data and move its new COBOL code to a full production environment.
Closed	13-11	6	We recommend that the OCIO implement an Independent Verification and Validation program for the LMAS IIP that tests and validates the each IIP meets its program and functional goals.
Closed	14-21	1	We recommend the LMAS project manager, in coordination with the Chief Financial Officer, develop and utilize a requirements traceability matrix to document user acceptance of the LMAS IIPs.
Closed	14-21	2	We recommend that Business Technology Investment Council approve all project baselines and re-baselines and perform project oversight functions as mandated in SOP 90-52.
Closed	14-21	3	We recommend that the CIO affirm the viability of current LMAS project milestones and conduct TechStats in accordance with SOP 90-52.
Open	14-21	4	We recommend that the CIO modify its Enterprise Architecture Roadmap to include all provisions of the LMAS IIPs.
Closed	14-21	5	We recommend that OCIO provide interim reports of IV&V activity to the oversight committees when significant variances to project timelines or other material thresholds warrant disclosure.

Recommendation

We recommend that the Office of Capital Access (OCA) in coordination with the Office of Chief Information Officer (OCIO) conduct a security impact assessment and reauthorize the Capital Access Financial System for operation.

Summary of Actions Necessary to Close the Report

Agency officials concurred with the recommendation. To close this report, SBA needs to conduct a security impact assessment and reauthorize the Capital Access Financial System.

We appreciate the cooperation that we received during this evaluation. Please contact me if you would like to discuss this report or any related issues.

- cc: Nick Maduros, Chief of Staff
- Matthew Varilek, Chief Operating Officer
- Melvin F. Williams, Jr., General Counsel
- Martin Conrey, Attorney Advisor, Legislation and Appropriations
- Tami Perriello, Associate Administrator for Performance Management and Chief Financial Officer
- LaNae Twite, Director, Office of Internal Controls

Objectives, Scope, and Methodology

This report presents the results of our LMAS IIP evaluation. Our objective was to evaluate SBA's progress in implementing the remaining LMAS IIPs.

The scope of our analysis included the LMAS IIPs and related project oversight practices between July 2014 and August 2015. Our review areas included:

- Modifications to existing IIPs, including the work completed and related budget and schedule information;
- Customer satisfaction surveys; and
- Follow-up on prior year findings.

To answer our objective, we interviewed and requested relevant documentation from OCA and LMAS contractors for project updates. We reviewed SBA's System Development Methodology (SDM) to ensure IIPs activities were following SBA guidance. Criteria outlined in the SDM was the primary guidance for this phase of the project. We also interviewed key LMAS users to assess the customer satisfaction of the migration efforts. In addition, we contacted OCA and OCIO regarding the status of open recommendations. Further, we examined the Business Technology Investment Council Charter and SOP 90-82, *Procedures for Managing SBA IT Investments – Investments Review Board (IRB)*.

Our methodology was based on a listing of transactions processed by various LMAS subsystems. We chose the four subsystems with the highest number of transactions that constituted approximately 95 percent of all transactions. OCA provided the primary users from each transactions group. Subsequently, we surveyed five groups that represented the primary users of LMAS. We asked them questions related to project management, communication, data integrity, outstanding issues, or problems. We also sought their overall impression of the migration effort.

We conducted this evaluation in accordance with the Council of the Inspectors General on Integrity and Efficiency's quality standards for inspection and evaluation. Those standards require that we adequately plan and perform the evaluation to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our objectives. We believe that the evidence obtained provides a reasonable basis for our conclusions based on our objectives.

Use of Computer-Processed Data

We relied on the budget and spending data prepared by SBA's Office of Capital Access for LMAS IIP costs. This data was not assessed as part of our review, and we do not believe our reliance on this system's information significantly affects the results of our review.

Nature of Limited or Omitted Information

No information was omitted due to confidentiality or sensitivity, nor were there limitations to information on this evaluation.