



August 19, 2009

PRITHA MEHRA
VICE PRESIDENT, BUSINESS MAIL ENTRY AND PAYMENT TECHNOLOGIES

JOHN T. EDGAR
MANAGER, CORPORATE INFORMATION TECHNOLOGY PORTFOLIO

SUBJECT: Audit Report – Electronic Verification System Rejected Transactions
(Report Number CRR-AR-09-006)

This report presents the results of our self-initiated audit of Electronic Verification System (eVS) Rejected Transactions (Project Number 09RG006CRR000). Our objective was to determine whether rejected eVS transactions are corrected and resubmitted for processing. The Postal Accountability and Enhancement Act of 2006 requires the U.S. Postal Service Office of Inspector General (OIG) to audit the data collection systems and procedures the U.S. Postal Service uses in its ratemaking process. This audit addresses both operational and financial risks. See [Appendix A](#) for additional information about this audit.

Conclusion

The Postal Service made progress in upgrading controls over eVS; [REDACTED]. [REDACTED]. During March 2009, the Postal Service implemented a suspense file to identify and track individually rejected detail records.¹ On June 1, 2009, management approved requirements for an interim solution for processing files with [REDACTED], which will notify mailers of all rejected transactions. Management must develop requirements for the final solution which provides an automated process for identifying and tracking all rejected transactions to ensure mailers correct and resubmit them. In addition, programming code errors resulted in approximately \$700,000 in overcharges to mailers during May 2009. Management corrected these overcharges, but not the underlying programming code that caused the overcharges. These system weaknesses place at least [REDACTED] in annual revenue at risk.

[REDACTED], improve customer

¹ A detail record contains information about an individual parcel [REDACTED]

service, and preserve customer goodwill and the Postal Service brand. A more rigorous definition of system requirements and testing could enhance system design and data integrity and the accuracy of information used in the ratemaking process.

On July 10, 2009, the Postal Service revised its procedural guidance to require “Arrival at Unit” scanning at delivery units on all Priority Mail and package products with Extra Services. On July 23, 2009, management informed us that guidance is being developed requiring scanning of all eVS parcels, including non-Confirmation Delivery parcels, upon arrival at unit. These procedures, when fully implemented, should reduce the amount of revenue at risk. We will report [REDACTED] of revenue at risk, improved customer service, protection of data integrity, and preservation of goodwill and the Postal Service brand as non-monetary impacts in our *Semiannual Report to Congress*.

Rejected Transactions

[REDACTED] During our review, management implemented a report that identifies and tracks rejected detail records. [REDACTED]

[REDACTED]

See [Appendix B](#) for our detailed analysis of this topic.

We recommend the Vice President, Business Mail Entry and Payment Technologies, direct the Program Manager, Business Mail Support, to:

1. [REDACTED]

Software Requirements Development and Testing

[REDACTED]

This occurred because the eVS development team did not fully follow Postal Service guidelines for software development and testing. [REDACTED] and customer service and goodwill branding is placed at risk. See [Appendix B](#) for our detailed analysis of this topic.

We recommend the Manager, Corporate Information Technology Portfolio, direct the Manager, Sales and Marketing Business Systems Portfolio, to:

2. Ensure employees perform software development and system testing in accordance with Postal Service guidelines.
3. Implement software changes that correctly validate destination entry rates claimed by mailers.

Management's Comments

Management concurred with our findings and recommendations. [REDACTED] using a percentage of revenue rather than a percentage of volume, as the basis for calculating revenue at risk. They also stated that they are confident their steps to enhance the system and work with mailers encountering rejected transactions to reconcile accounts would significantly reduce future risk. Management's comments, in their entirety, are included in [Appendix C](#).

Evaluation of Management's Comments

The OIG considers management's comments responsive to the recommendations and management's actions should resolve the issues identified in the report.

Although management agreed there is revenue at risk, they believe the risk to be lower than the [REDACTED] stated in the report. We agree that corrective actions, planned or taken, will reduce the revenue at risk. However, we believe our estimates are reasonable based on FY 2008 revenue data.

The OIG considers recommendation 1 significant, and therefore requires OIG concurrence before closing. Consequently, the OIG requests written confirmation when corrective actions are completed. This recommendation should not be closed in the Postal Service's follow-up tracking system until the OIG provides written confirmation that the recommendation can be closed.

We appreciate the cooperation and courtesies provided by your staff. If you have any questions or need additional information, please contact Paul Kuennen, Director, Cost, Revenue and Rates, or me at (703) 248-2100.

E-Signed by Darrell E. Benjamin, Jr. 
VERIFY authenticity with ApproveIt

Darrell Benjamin, Jr.
Deputy Assistant Inspector General
for Revenue and Systems

cc: Thomas G. Day
George W. Wright

Charles L. McGann, Jr.
Robert E. Dixon, Jr.
Vicki M. Bosch
Bill Harris

APPENDIX A: ADDITIONAL INFORMATION

BACKGROUND

The eVS allows high-volume package mailers and package consolidators to document and pay postage using electronic manifest files. During fiscal year (FY) 2008, eVS processed 123 million parcels and generated more than \$232.3 million in revenue. As of May 7, 2009, there were 36 approved eVS mailers and three mailers testing the eVS.

The eVS receives electronic files from the mailers via the Postal Service's Product Tracking System (PTS). PTS performs business rule validations to ensure mailpieces meet the criteria for confirmation services. PTS also combines data files from multiple mailers into a consolidated manifest file and generates a Confirmation, Error, and Warning (CEW) file for each mailer.² PTS forwards files containing information about valid records accepted for processing, as well as records that do not meet all PTS criteria, to the eVS with error and warning messages.

Files received from the PTS generally consist of many manifests identified [REDACTED]. The detail records contain information about individual parcels, such as mail class, destination ZIP Code, postage amount, weight, processing category, rate and DRIs,³ zone, postal routing barcode, confirmation services,⁴ and any discount or surcharge.

[REDACTED] Additional filtering by eVS includes validating individual detail records to ensure their accuracy. The eVS uses accepted records to generate electronic postage statements and submits the postage statement directly to *PostalOne!*®, where the postage is withdrawn from the mailers' postage payment accounts. [REDACTED]

The eVS application generates several online reports to provide mailers with information regarding individual parcels. One recently implemented report shows the status of individually rejected detail records. The eVS generates other reports using data collected from eVS barcoded mailing labels scanned during delivery confirmation services. The scanned data is transmitted to the eVS database to determine whether

² Records with edit errors or edit warnings as well as summary information are reported in the CEW file.

³ One of the determinants used in the calculation of the postage amount charged for eVS parcels.

⁴ Extra services available for purchase on parcels.

the parcels are mis-shipped⁵ or un-manifested.⁶ Mailers are assessed postage based on discrepancies between the electronic manifest data and data collected from the delivery confirmation scans. The eVS calculates applicable adjustments and deducts postage from mailers' postage payment accounts.

OBJECTIVE, SCOPE, AND METHODOLOGY

The objective of this audit was to determine whether transactions rejected by the eVS are corrected and resubmitted for processing. To accomplish our objective, we reviewed Postal Service policies and procedures related to eVS and software development and testing. We interviewed key eVS, information technology, and contractor personnel. We visited two eVS mailers to observe operations and obtain feedback on the monitoring and reprocessing of rejected eVS transactions.

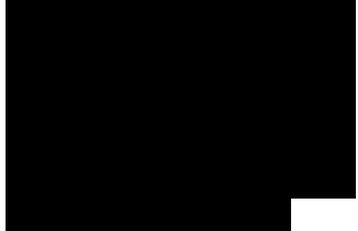
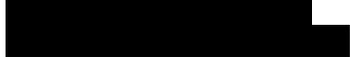
To determine whether rejected transactions were resubmitted for reprocessing, we extracted and analyzed data from transaction and log files. [REDACTED]. We used manual and automated processes to assess the reliability of the computer-generated data used for our analysis and concluded the data were sufficiently reliable to support the audit objective.

We conducted this performance audit from December 2008 through August 2009 in accordance with generally accepted government auditing standards and included such tests of internal controls as we considered necessary under the circumstances. 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 objective. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. We discussed our observations and conclusions with management officials on July 9, 2009, and included their comments where appropriate.

⁵ Parcels deposited by an eVS mailer at an incorrect entry facility.

⁶ Parcels accepted and scanned by the Postal Service for which electronic manifests are not received or successfully processed.

PRIOR AUDIT COVERAGE

Report Title	Report Number	Final Report Date	Monetary Impact	Report Results
<i>Security Review of the Electronic Verification System</i>	CRR-AR-08-002	February 12, 2008	None	 Management agreed to revise guidelines  
<i>Application Controls Review of the Electronic Verification System</i>	CRR-AR-08-003	March 31, 2008	None	The report cited weaknesses in data input validation, sampling, reconciliation, and procedures that did not clearly distinguish data used for parallel testing from production data. Management agreed to implement corrective actions to address the weaknesses, except for the parallel testing of data due to resource limitations.

APPENDIX B: DETAILED ANALYSIS

Rejected Transactions

[REDACTED]

[REDACTED] Best practices require that transactions failing validation should be reported in a suspense file and appropriately followed through to the remediation of the errors. During our review, management implemented a suspense file capability for individually rejected detail records and developed requirements for an interim solution to process detail records associated [REDACTED]

[REDACTED] will assist the Postal Service in ensuring it collects the proper postage for all eVS transactions.

System Modifications

Rejected Detail Records

In March 2009, management took corrective action to implement a suspense file capability for files containing correct [REDACTED] but incorrect detail records. This capability provides a Manifest Error Report for mailers to use in researching, correcting, and resubmitting these files. For records not corrected and resubmitted by the 10th day of the following month, the Postal Service charges the average price for the parcel's mail class based on the manifests submitted by the mailer for the month.

[REDACTED]

[REDACTED]

For parcels that have confirmation services, scanning performed during mail processing will enable tracking and subsequent revenue collection for parcels with rejected records.

[REDACTED]

Management Actions

In June 2009, the Postal Service developed requirements for an interim solution for tracking detail records rejected [REDACTED], which they plan to deploy in August 2009. This feature allows the system to retain erroneous data from the original data file and calculate postage at the rates reported in the file or the mailer's average price for that mail class for the month. This feature enhances the Manifest Error Report to include [REDACTED]. However, the mailer is required to review summaries from this report and manually trace them to the CEW report to identify detail records that need correction. The Postal Service has to manually update this report to reflect records resubmitted by the mailer. [REDACTED]

Software Requirements Development and Testing

The destination rate validation functionality implemented on March 29, 2009, incorrectly validated the ZIP Codes of the destination entry facility and DRI for Destination Delivery Unit (DDU) parcels. This occurred because management developed this functionality based on insufficient software requirements and the system integration testing was inadequate. Postal Service policy requires all technology solutions to be developed and implemented with adherence to the Technology Solution Life Cycle methodology. As the incorrect implementation resulted in overcharging customers, management deactivated this feature on April 9, 2009. [REDACTED]

[REDACTED] Additionally, overcharging mailers placed customer service and goodwill/branding at risk.

The Postal Service intended for this system functionality to validate the ZIP Codes of the destination entry facility and DRI to ensure mailers claimed the correct rate of the entry facility. The business rule required validating the destination entry facility and the DRI based on the entry ZIP Code from the [REDACTED] and the destination ZIP Code from the detail record for the network distribution center (NDC), the sectional center facility (SCF), and the DDU. System integration testing used inadequate test plans, which reported successful test completion without testing all rules. Although validation for the SCF worked correctly, the NDC discount validation failed because management did not update the reference tables needed to successfully validate the discount. Further, the DDU rate validation failed due to insufficient requirements and resulted in overcharging mailers.

Between March 29 and April 9, 2009, the Postal Service overcharged mailers approximately \$700,000. On May 29, 2009, the Postal Service reversed all of the DDU data from that period and re-ran the same data using the expected DDU rates as listed on the manifests.

On May 9, 2009, management updated the reference tables required for NDC validation, correcting the errors in the NDC discount validation process. [REDACTED]

[REDACTED] Accurate destination rate validation requires referencing the Mail Direction file⁷ as well as the Address file.⁸ Management has not established milestones to re-define and re-implement this feature.

⁷ The Mail Direction file contains information to identify alternative locations for drop shipments when mail processing operations are in more than one facility.

⁸ The Address file contains the names, addresses, and telephone numbers of facilities to which mail can be drop shipped for different entry discounts. This information comes from the Address Management System database.

APPENDIX C: MANAGEMENT'S COMMENTS

PRITHA MEHRA
Vice President
Business Mail Entry & Payment Technologies



August 11, 2009

Lucine M. Willis
Director, Audit Operations
Office of Inspector General
1735 N. Lynn Street, Room 11044
Arlington, VA 22209-2020

SUBJECT: Draft Audit Report – Electronic Verification System Rejected Transactions
Report Number CRR-AR-09-DRAFT), Project Number 09RG006CRR000

Thank you for the opportunity to review and comment on the subject draft audit report. We are in agreement with recommendation 1 of the report and the response is attached.



If you have any questions or comments regarding this response please contact Vicki Bosch, Business Mailer Support at (202) 268-4978.

A handwritten signature in cursive script, appearing to read "Pritha Mehra".

Pritha Mehra
Vice President
Business Mail Entry and Payment Technologies

Attachment

cc: Thomas G. Day
George W. Wright
Charles L. McGann, Jr.
Robert E. Dixon, Jr.
Vicki M. Bosch
Katherine S. Banks
William P. Harris
audittracking@uspsol.gov

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We recommend the Vice President, Business Mail Entry and Payment Technologies; direct the
Program Manager, Business Mail Support, to:





August 10, 2009

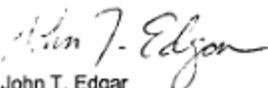
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SUBJECT: Draft Audit Report – Electronic Verification System Rejected Transactions
Report Number CRR-AR-09-DRAFT), Project Number 09RG006CRR000

Thank you for the opportunity to review and comment on the subject draft audit report. We are in agreement with recommendations 2, and 3 of the report and the response is attached.



If you have any questions or comments regarding this response please contact Gerri Wallace, Corporate Information Security at (202) 268-6821.


John T. Edgar
Manager
Corporate Information Technology Portfolio

Attachment

cc: Thomas G. Day
George W. Wright
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Robert E. Dixon, Jr.
Vicki M. Bosch
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