Office of Inspector General | United States Postal Service

RISC Report

The Postal Service's Collection Point Management System

Report Number RISC-WP-22-007 | May 18, 2022

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Executive Summary

The Collection Point Management System (CPMS) is a Postal Service data collection system that manages data pertaining to its vast network of mail collection points. The Postal Service defines collection points as "locations where a customer drops off mail for collection by the Postal Service. These can include receiving boxes, firm pickups, Self-Service Kiosk (SSK) drops, lobby drops, and mail collection boxes."

While the Postal Service's vast network of blue boxes located throughout the nation is the most visible part of its collection network, CPMS includes data on other collection points in the network. CPMS contains data such as collection point addresses, location types, and the days and times mail is collected from each collection point. The CPMS user interface also facilitates the entry and modification of data on collection points additions, removals, relocation, suspensions, or maintenance. Finally, CPMS records the data from the annual volume density tests that the Postal Service conducts to measure the volume of mail moving through each individual collection point, which, among other considerations, help the USPS make decisions on collection point addition or removal. District-level personnel bear the ultimate responsibility for oversight, although the Postal Service is looking to move this responsibility to the headquarters level.

CPMS data support important internal decisions at both the national and local levels. For example, they allow headquarters to monitor the status of a key access channel to postal services across the country. Local delivery units use the location information on collection points to plan dedicated collection routes. Externally, the Postal Service provides CPMS data to the Postal Regulatory Commission for their reporting purposes. Finally, CPMS data is used by the Postal Service's blue box finder on its public website that allows customers to check service status and location of blue collection boxes.

While CPMS is a useful operational tool for postmasters and District officials, there are opportunities to enhance the system to make data management processes more efficient and improve the quality of CPMS data. Currently, some data collection methods can result in inaccurate data or inefficient business processes. Specifically, local postmasters communicate requests for collection point suspension, relocation, or removal and maintenance submits requests for label replacement to the District via telephone or email, rather than through CPMS. The use of different communication channels for conveying these collection network status changes can result in important information being lost or delayed.

In addition, during the collection points annual volume density tests, District officials manually review data input by carriers to identify and correct obviously incorrect entries, such as reported volumes exceeding the box's physical capacity, or non-zero values entered for points that are not currently collecting mail. There is currently no practical mechanism within CPMS to automatically detect and flag data inputs which are incorrectly entered.

What the OIG Recommends

We recommend the Postal Service assess the feasibility of building a new workflow to enable postmasters to enter collection box status change requests, and maintenance officials to enter blue box label replacement requests directly into CPMS, subject to District oversight. Additionally, the Postal Service should review the feasibility of establishing validation controls within CPMS to help identify, flag, and produce an exception report for any potential errors occurring during the volume density test for further review by District and local personnel.

Observations

Introduction

The Postal Service's Collection Point Management System (CPMS) is a data collection system that manages information pertaining to the majority of mail collection points in the Postal Service network. Through CPMS, the Postal Service can ascertain whether collection points are needed where they are located, whether they are currently in service or need maintenance, and verify daily that mail is regularly collected from these points according to schedule. CPMS plays a key role in helping ensure the Postal Service is providing customers with appropriate access to its collection network and quality of service.

We reviewed the CPMS' policies and processes for data collection and maintenance and interviewed Postal Service management at the headquarters (HQ), District, and local post office levels in order to identify potential opportunities to enhance CPMS' capability to support the Postal Service's operations, its customers, and its stakeholders.

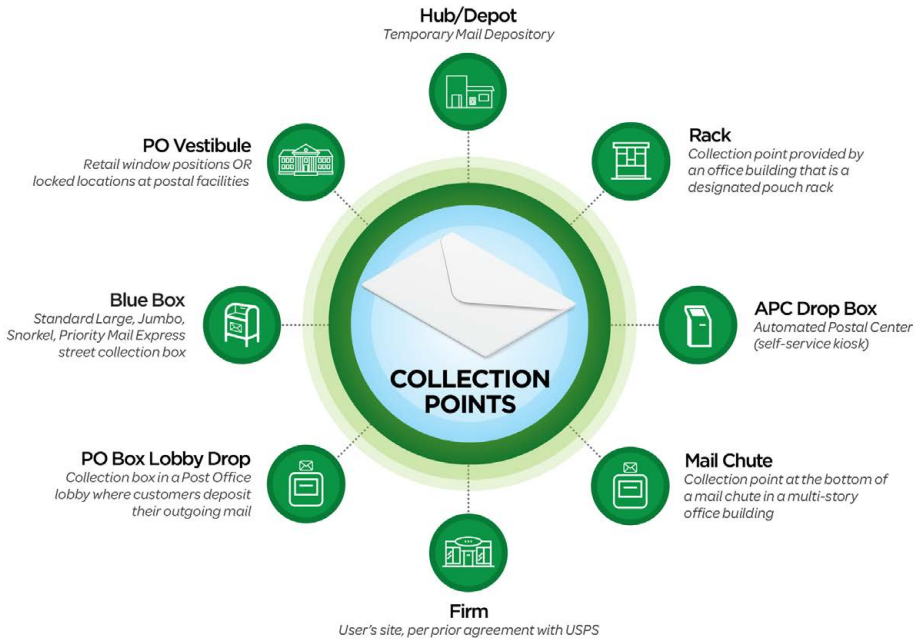
Database Functionality

While the Postal Service's more than 140,000 blue boxes located throughout the nation are the most visible part of its collection network, CPMS includes data on all the collection points in the network except for individual home curbside mailboxes and cluster box units, data for which are included in the Postal Service's Address Management System.[1] According to the Postal Service, collection points are "defined locations where a customer drops off mail for collection by the Postal Service. These can include mailchutes, receiving boxes, firm pickups, Self-Service Kiosk (SSK) drops, lobby drops, and mail collection boxes" (Figure 1).[2]

Data Collection

CPMS includes four primary data categories: box type and location information; collection times; box removals, relocations, suspensions, and additions; and annual volume density test data.

FIGURE 1: POSTAL SERVICE COLLECTION POINTS



Source: USPS OIG

- Box type and location – Details of collection points, such as addresses, collection box types, and location types (e.g., Business, Residential, Post Office Lobby) are maintained within CPMS.
- Collection times – CPMS is the system used to verify daily collections are conducted according to schedule (Figure 2). When a carrier visits a collection point, they use their handheld scanner to scan the label inside the box to capture the date and time of the collection. The data automatically uploads to

1 Data as of FY 2021. Postal Regulatory Commission, "Annual Compliance Determination Fiscal Year 2021," March 29, 2022, pp. 212-13, https://www.prc.gov/sites/default/files/reports/FY%202021%20ACD.pdf.
2 USPS, Postal Operations Manual Issue 9, §314.1 Collection Point Management System, Collection Tests, and Density Tests, p. 147, https://blue.usps.gov/cpim/ftp/manuals/pom/pomtc.pdf, (Volume Reviews).

FIGURE 2: DAILY BLUE BOX COLLECTION

Source: USPS Newslink

CPMS, where the information is reviewed by District officials to verify all daily collections have been completed.

- Box removals, relocation, suspensions, additions, and repair – CPMS is used to track a variety of collection point status changes. When the need to take a collection box out of service arises, for example, the local postmaster (or the maintenance team) conveys the information, via email or phone, to the responsible District official. The District official then evaluates the request and gathers any additional information as necessary to determine whether the request satisfies specified criteria. Postal officials indicated that the Postal Service is taking steps to shift more of this oversight role to the HQ level. Valid reasons for box suspension include a box that is damaged and awaiting repair, a box needing to be removed for a parade, or one that cannot be collected from due to unusual circumstances. If the request is determined to be justified, the District official inputs the information into CPMS to initiate the requested action. Otherwise, the request is denied, no information is inputted into CPMS, and no record of the request is retained.

- Annual volume density test data – Each year, the Postal Service conducts a volume density test in CPMS to measure the volume of mail moving through each individual collection point. The density test takes place over a four-week period, and District and local level employees are notified of the specific dates in advance of the test. During the density test, carriers estimate or count the number of pieces of mail in each collection point they visit and input those data into CPMS via their hand-held scanner.[3]

Database Maintenance: Tasks and Responsibilities

Per the CPMS user manual, each District office currently maintains their portion of the national CPMS database that contains information for all the collection points that are managed by the post offices or stations within the District.[4] Additionally, District officials:

- Review daily collections data to ensure all collections were conducted. If the data indicates a collection point was not visited, the official will follow-up to determine the cause, i.e., the result of technical issues (such as a malfunctioning bar code), or an actual missed collection.

- Validate operational requests submitted by local postmasters (for example, requests for box suspensions) to ensure the premise of the request is appropriate, and that all necessary supporting information is included.

- Review data submitted by carriers during density testing for reasonableness or anomalies. For example, Hub depots do not actually accept mail, as they

3 Carriers have two methods to estimate mail volume. The "Flat-tub" method involves the carrier exchanging the flat tub in the collection box with an empty flat tub. Carriers count individual mailpieces in flat tubs less than one-inch full. For flat tubs over one-inch full, carriers convert the inches of mail to mailpieces using a provided conversion table. The "Pincher" method is used when retrieving bundles in the collection box. Carriers use their scanners as a ruler and convert the measurement to mail volume using a provided conversion table. USPS, "Volume Density Test Service Talk" in *National CPMS Density Test SOP*, September 2018, p. 9, https://www.prc.gov/docs/110/110134/ChIR.4.Q.1c.Density.Test.Material.pdf.

4 USPS, "CPMS Admin User's Manual," October 31, 2018, p. 3, https://blue.usps.gov/delret/L3do/dsystems/CPMS/CPMS%20Admin%20User's%20Manual%20CPMS%20Enhancement%2010-31-18.docx ("CPMS manual").

are temporary collected mail depositories, but may have volumes reported.[5] In this case, additional review is warranted. Similarly, some boxes may be reported as having mail volumes far exceeding their physical capacity. These errors can be the result of carriers mis-entering data into their handsets. When anomalies are discovered, District officials contact the local post office that generated the questionable data to clarify and correct.

CPMS Data Users

CPMS data is primarily used internally, at both the local and HQ levels, to support operational decisions and monitor the status of collection points in the network. External use of CPMS data is limited to specific data requests from the public or the media, users of the Postal Service's online collection box locator tool, and the Postal Regulatory Commission (PRC), which includes CPMS data in its Annual Compliance Determination report.

Internal Users

CPMS data are most frequently used at the local level. Areas with high volume collection points, such as large cities, often have dedicated collection routes. In these areas, postmasters use CPMS data to determine when and how frequently these collection points should be visited.

Postmasters use density test data to determine if a box can be moved or removed. Generally, if a collection point receives 25 or fewer pieces of mail per day, it is considered a candidate for relocation or removal.[6] Conversely, box additions are infrequent. Several postmasters interviewed communicated that in light of declining mail volumes, box additions are exceedingly rare.[7]

Additionally, District officials use CPMS to print replacement labels for boxes that have been vandalized or replaced due to damage. Area maintenance personnel, notified by local officials, contact District officials via email or telephone to report collection boxes that need replacement labels. After verifying the request, District officials use CPMS to print the labels and then mail them to the maintenance team, who installs them on the replacement box.[8]

Lastly, the Postal Service's CPMS team at HQ indicated that CPMS data are used to compile their monthly collection point out of service report, which tracks collection points that are temporarily suspended due to damage or other issues impacting the box's accessibility. Specifically, the report contains out of service collection points' location, type, days out of service, date range out of service, and totals by Area and District. It is shared with District managers and managers of field operations and provides them a regular update on the status of out of service collection points within their purview. The CPMS team also uses CPMS to analyze, collect, and store the results of the annual collection points' volume density testing, and for their annual review. Postal Service officials indicated that concurrence on box removal decisions based on CPMS data is currently made at the Area level, although HQ may play a larger role in these decisions in the future. Density test results play a part in those decisions, but other factors – such as the proximity of other publicly available collection points, and the needs of customers in the vicinity of the box – are also taken into consideration.

External Users

Data on the total number of collection boxes throughout the country is reported in the PRC's Annual Compliance Determination report. The report documents the

5 A Hub is a down-flow mail facility similar to a Network Distribution Center (NDC), Area Distribution Center (ADC), and Sectional Center Facility (SCF). If a facility is identified as a Hub, it will serve as a cross-dock facility for destinating volume that is properly prepared and entered at the Hub location. The Hub will transport mail to the downstream delivery units that the Hub services. (USPS Postal Pro, Service Hubs and Facilities, https://postalpro.usps.com/operations/service-hubs-and-facilities.)

6 The Postal Operations Manual dictates that collection boxes averaging less than 25 pieces per day should be relocated first, and only removed after exhausting/reviewing relocation options. Additionally, boxes adjacent to senior citizen housing, municipal and judicial buildings, and other public facilities may be left in place even if they receive fewer than 25 pieces per day. USPS, Postal Operations Manual Issue 9, §315.3 Collection Point Management System, Collection Tests, and Density Tests (Volume Reviews), https://blue.usps.gov/cpim/ftp/manuals/pom/pomtc.pdf.

7 Between FY 2016 and FY 2019, the total number of Postal Service collection boxes decreased by 10,239, from 152,539 to 142,300. In FY 2020, there were 140,845 collection boxes, a decrease of 1,455 from FY 2019. In FY 2021, there were 140,062 collection boxes, down 783 from FY 2020. These net changes are comprised of both additions and removals. Postal Regulatory Commission, "Annual Compliance Determination Fiscal Year 2020," March 29, 2021, p. 223, https://www.prc.gov/sites/default/files/reports/2020_ACD.pdf and "Annual Compliance Determination Fiscal Year 2021," March 29, 2022, pp. 212-13, https://www.prc.gov/sites/default/files/reports/FY%202021%20ACD.pdf.

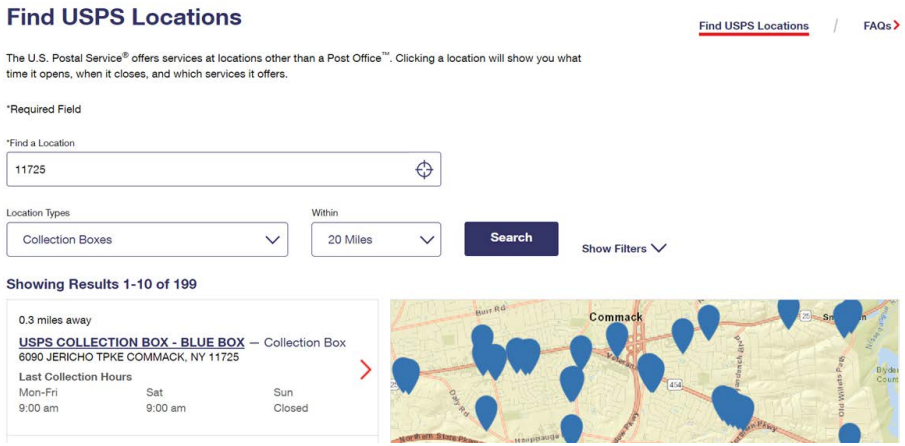
8 The CPMS manual refers to the printing of labels as a "service" performed by the system. To print a label, the District official need only input the Location ID; all other data necessary to produce the bar code are contained within CPMS. (CPMS manual, p. 88.)

change in the total number of collection boxes in the past fiscal year along with historical data from past years.[9] The Postal Service provides the PRC with CPMS data, specifically blue box data including number by area, changes in numbers over time, and density results.

In addition, the Postal Service relies upon the accuracy of the underlying CPMS data on box location and service status to provide accurate information to customers who use the online collection box finder.

The box finder tool allows users to search by city, state and/or zip code for a listing of the nearest collection boxes (Figure 3). For each collection box, the tool returns the street address, the distance from the searched location, and the time of the last daily pick up. The tool also returns a street map showing the location of the boxes. The finder tool retrieves this information from CPMS.

FIGURE 3: THE USPS COLLECTION BOX FINDER TOOL



Source: USPS.com

In prior research, the OIG reviewed data from collection point removal reports in CPMS to understand trends in collection box removals. However, issues of reliability limited the analyses. Specifically, the OIG could not definitively distinguish collection box removals from collection box relocations using data from CPMS. CPMS records removals approved by Area managers, but it does not track if a collection box is removed from one place and then moved to another location. Details about collection box relocation and removal decisions are in fact kept as written copies at the office of the Area manager and not included in CPMS. Although these issues do not impact the Postal Service's collection operations, they could affect its ability or that of other postal stakeholders to conduct analysis of how the postal collection box network has changed over time.

Lastly, the Postal Service's CPMS team indicated that CPMS data is occasionally provided in response to Freedom of Information Act (FOIA) requests on collection point removals.

Challenges and Implications

While CPMS provides the Postal Service with a tool to manage and monitor the status of its vast collection point network, District officials and postmasters highlighted several opportunity areas related to data collection and management processes to help increase resource efficiency and data quality.

Important Communications Occur Outside of CPMS

While CPMS is the primary tool that the Postal Service uses to manage collection boxes and other collection points, the system does not facilitate or capture key communications between Districts and postmasters – such as changes to the status of a collection point – which currently take place through communications channels outside of the system. Additionally, postmasters cannot directly input data about box suspensions, reactivations, relocations, or removals into CPMS. Instead, for example, when a collection box is damaged and needs temporary suspension or removal, the postmaster must relay information about that collection box to District officials. These communications occur via phone or email messages rather than through the CPMS system itself. A District official

9 Postal Regulatory Commission, "Annual Compliance Determination Fiscal Year 2021", March 29, 2022, pp. 212-13, https://www.prc.gov/sites/default/files/reports/FY%202021%20ACD.pdf.

then reviews this information and takes appropriate action through CPMS by, for example, marking that box as suspended or temporarily removed.

The coexistence of these parallel communication channels can create challenges. Phone or email communications create the potential for details about the collection point status change or the request itself to become lost in the relay between the postmaster and the District official, especially if there are a large number of collection points needing to be suspended. Delayed or missed communication can result in a collection point remaining unavailable to customers for longer than would otherwise be necessary. Miscommunication can also result in the Postal Service not providing accurate information about the status of collection boxes to the public. For example, the collection box finder tool on USPS.com, which utilizes CPMS data, may show suspended collection boxes as still active, or may not show collection boxes that have been reactivated.

Postmasters indicated that the Postal Service's recent reorganization meant they may not always know the correct official to contact to submit box suspension or removal requests. Because this procedure is done manually — via email or telephone — any lack of transparency in the approval process can result in a delay. Data entry for suspensions and reactivations could be completed faster and capture more information about the underlying reasons if completed by a local postmaster.

The same communication challenge can occur when a box is taken out of service due to damage, such as vandalism or being hit by a car. The replacement box will require a new set of labels (Figure 4). Replacement labels can only be printed by District officials. First, the local maintenance group must submit a request for the replacement label via email or telephone. After reviewing the request, the District official prints the label and mails it to the maintenance facility. While the process of printing the label takes place within CPMS, the process of requesting the label occurs outside. This can create inefficiency in the communication channels, similar to the current process used by postmasters to alert the District about collection box suspensions described above. The District official serves as an intermediary by inputting requests for new collection box labels, a procedure that could be more efficiently initiated by the maintenance groups which identify the need for the label replacement.

FIGURE 4: BLUE BOX LABEL

Source: Getty Images

Lack of Automated Control Over Volume Density Test Data Inputs

The data input into CPMS by carriers for the annual volume density tests are manually validated by the carriers at the point of input, which increases the risk of inaccurate results. During our research, District officials provided examples of inaccurate data inputs received as part of the density test, to include results for collection points that are not supposed to be tested (such as mail drops in private buildings or post office vestibules), erroneous entries such as the local ZIP Code input as mail volumes, and mail volume entries that exceed box capacity.

Currently, CPMS does not have system controls set up to flag inaccurate data entries for volume density tests.[10] Validating density test data is a manual process where District officials review volume entries for each collection point tested to find anomalies. Because volume density tests are an important factor in determining removal or addition of collection boxes, District officials must devote time to manually reviewing the data to correct obviously faulty entries. One official estimated the additional work requires five hours a day for three weeks during the annual density test. This data review is necessary, however, as inaccurate data could negatively affect decisions over collection box removals.

Potential Solutions

Our research highlighted several system enhancement opportunities to streamline current data management processes, increase resource efficiency, and improve collection point data quality.

Enable Postmasters and Maintenance Staff to Directly Submit Requests through CPMS

Allowing local postmasters to submit collection box status change requests (e.g., suspensions, reactivations, temporary and permanent removals, or location changes) and local maintenance to request replacement blue box labels directly through CPMS, rather than via external channels such as email or phone calls, would make the process both more effective and time efficient. District officials would maintain their oversight role, but no longer be placed in the position of having to input necessary information to which they do not have direct access. Local officials would know precisely where to submit requests and would not need to spend time identifying the correct point of contact at the District level to direct their email or phone call. The use of different communication channels for conveying these collection network status changes can result in important information being lost or delayed.

The creation of an electronic record of these requests in CPMS, generating alerts each time a new request comes in or needs attention, would make it easier to keep track of requests and ensure they are promptly completed. The result would be time savings, access to more accurate information, and better tracking of outcomes.

The Postal Service is aware that the workflow in CPMS could be made more efficient. Postal management is currently considering whether parts of this workflow can be streamlined through changes in CPMS or by utilizing other data management systems.

Improve Integrity of Volume Density Test Data

Instilling within CPMS the ability to detect and flag erroneous or questionable volume density data would both improve the quality of the density estimates and substantially reduce the time currently spent by District officials manually reviewing the data for anomalies. For example, CPMS would flag volume density inputs that far exceed the box's physical capacity, or non-zero entries for locations where no mail is being collected. The first-level review would result in the generation of an exception report that would bring potential issues to the attention of District personnel reviewing the data and local officials who could investigate further. District officials could also be notified within CPMS that the questionable data inputs have been reviewed and any corrections that might have occurred. These changes will increase data accuracy and reduce the chances that the Postal Service makes decisions on collection point removals based upon unreliable data.

OIG Recommendation

Recommendation 1: We recommend the Vice President, Delivery work with the Vice President of Technology Applications to assess the feasibility of the following enhancements:

a. Building a new workflow to enable postmasters to enter collection box status change requests directly into CPMS or other data management systems, subject to District approval;

10 Currently, postal carriers' handheld scanners, or Mobile Delivery Devices (MDDs), have three filters intended to reduce the likelihood of inaccurate data entry: carriers are asked to confirm all data inputs, alphanumeric entries are automatically rejected, and inputs five digits or greater in mail volume fields are automatically rejected. CPMS has no such safeguards, which is why District officials must manually review the data during volume density tests.

b. Building a new workflow to enable maintenance personnel to enter blue box label replacement requests directly into CPMS or other data management systems, subject to District approval; and

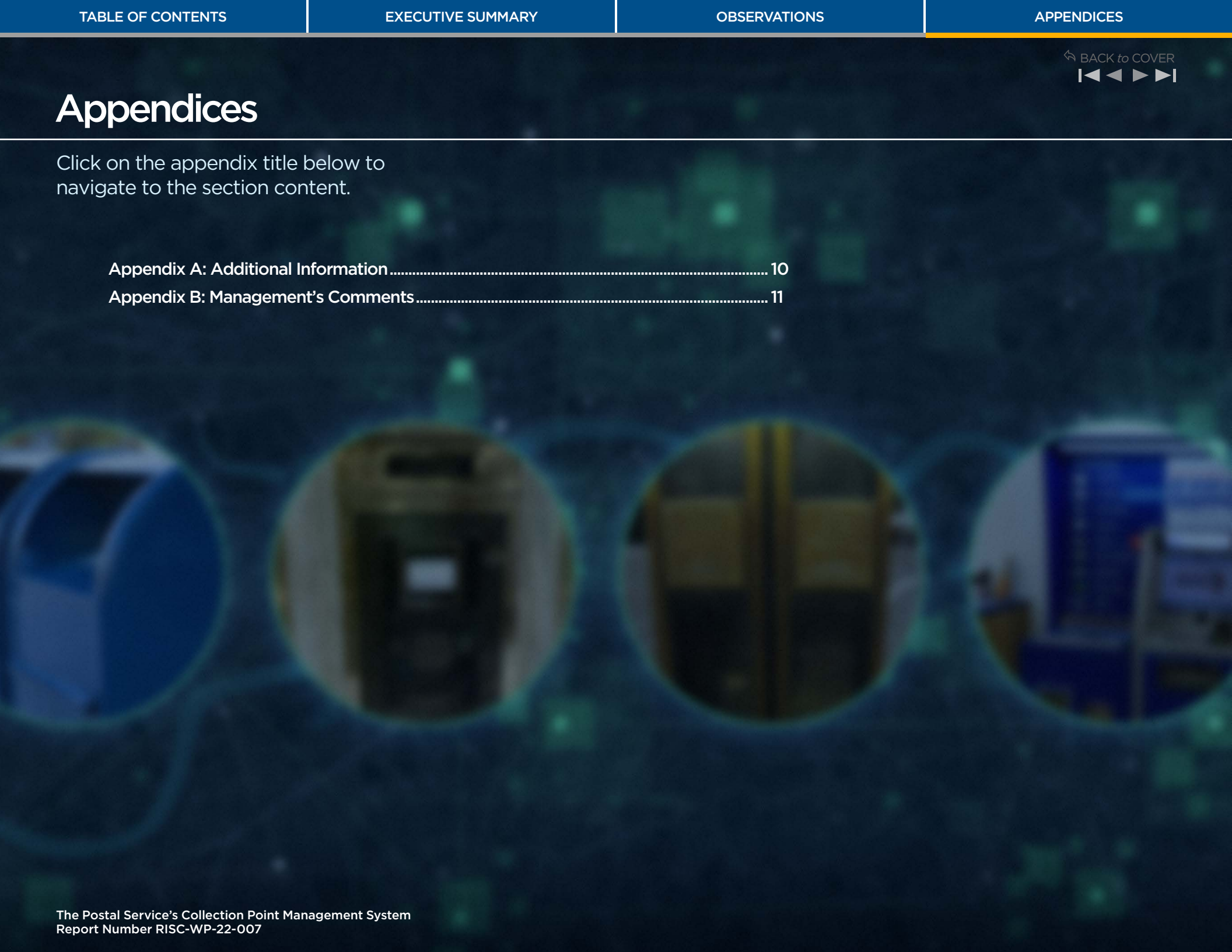
c. Establishing within CPMS validation controls to help identify, flag, and produce an exception report for any potential errors occurring during the volume density test for further review by District and local personnel.

Conclusion

By supporting the Postal Service in monitoring and managing its vast network of collection points, the Collection Point Management System plays a key role in providing customers with appropriate access and high-quality service. CPMS not only monitors collection point locations and types, but verifies collections are made on time, tracks the operational status of collection points, gathers data on collection box volumes, and records when and where collection points are added or removed. While CPMS is a useful operational tool for postmasters and District officials, there are opportunities to enhance the system and its management. These opportunities include using the system for all communications related to changes to collection network status that currently take place through other channels and enabling the system to identify potential issues with volume density test data quality. These changes would improve the Postal Service's ability to manage and track its collection point network, provide more accurate and timely data for internal decisionmakers, and offer better service to the public.

Appendices

Click on the appendix title below to navigate to the section content.



Appendix A: Additional Information

Objective(s), Scope, and Methodology

The objective of this research paper was to assess Collection Point Management System (CPMS) policies, procedures, and practices for opportunities to enhance support of the Postal Service's operations, customers, and stakeholders.

Our scope was the CPMS and its related policies and procedures.

Our methodology included:

- Interviews with Postal Service officials. We interviewed Postal Service Headquarters senior and executive management, District-level Postal Service officials, and local postmasters. We also interviewed officials with the Postal Regulatory Commission; and
- Desk research, including OIG and other agency materials. Among the materials we reviewed were the CPMS user manual, the Postal Operations Manual (POM), and the National CPMS Density Test Standard Operating Procedures (SOP).

This research was conducted in accordance with the Council of the Inspectors General on Integrity and Efficiency's Quality Standards for Inspection and Evaluation. We discussed our observations, conclusions, and recommendations with management on March 10, 2022 and April 1, 2022, and incorporated their comments where appropriate.

Prior Coverage

Title	Objective	Report Number	Final Report Date	Monetary Impact
Collection Box Removal Process – Eastern Area	Assess the collection box removal process in the Eastern Area.	DR-AR-16-007	August 22, 2016	$0
Mail Collection Box Management Process – Capital Metro Area	Assess the process used to remove collection boxes or to place them out-of-service in the Capital Metro Area.	DR-AR-17-005	May 9, 2017	$0
Mail Collection Box – Management of Service Status	Assess the Postal Service's processes for managing out-of-service mail collection boxes in the Great Lakes, Northeast, Pacific, Southern, and Western Areas.	DR-AR-17-009	September 8, 2017	$0

Appendix B: Management's Comments

UNITED STATES POSTAL SERVICE

May 10, 2022

JENNIFER MYKIJEWYCZ
DIRECTOR, OPERATIONS CENTRAL
RESEARCH AND INSIGHTS SOLUTION CENTER

SUBJECT: Management Response: The Postal Service's Collection Point Management System – White Paper (2022RISC001)

Thank you for the opportunity to review and comment on the Office of Inspector General's (OIG's) white paper: *The Postal Service's Collection Point Management System.*

The Collection Point Management System (CPMS) does play a key role in ensuring that the Postal Service provides appropriate access and high-quality service. To ensure this application is optimal, we will review and assess the potential effectiveness and viability of the recommendations shared.

Recommendation 1: We recommend the Vice President, Delivery Operations, work with the Vice President of Technology Applications to assess the feasibility of the following CPMS enhancements:

a. Building a new workflow within the system to enable postmasters to enter collection box status change requests directly into CPMS, subject to District approval
b. Building a new workflow within CPMS to enable maintenance personnel to enter blue box label replacement requests directly into CPMS, subject to District approval
c. Establishing within CPMS validation controls to help identify, flag, and produce an exception report for any potential errors occurring during the volume density test for further review by District and local personnel.

Management Plans/Actions: We agree that Delivery & Technology Applications will work together to assess the feasibility of building a new workflow within CPMS to enable postmasters to enter collection box status change requests, and maintenance officials to enter blue box label replacement requests directly into the system. In addition, we will review the feasibility of establishing validation controls within CPMS to help identify, flag, and produce an exception report for any potential errors occurring during the volume density test for further review by District personnel.

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Target Implementation Date: We expect to have the feasibility of these recommendations fully completed by August 31, 2022.

Responsible Officials: Director Delivery Strategy & Policy and Director Retail & Delivery Tech Service

E-SIGNED by ANGELA.H CURTIS
on 2022-05-10 08:57:03 CDT

Angela H. Curtis
Vice President, Delivery Operations

E-SIGNED by Garrett.M Hoyt
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