

# *Intelligent Mail barcode*

*IMb*

*Aka*



I Are you I ready

IMB are you



I SHOW!!!!!!  
I for I the



# Intelligent Mail Barcode

*Presented By:*

**Shane Lenker**

*Project Manager*

**Christine Sehar**

*Business Manager*

**Mike Justice**

*Technical Manager*

Test Information  
123 Highway  
Harrisburg, PA 17102



Notice Date: 06/26/2018  
Tax Year: 2017  
DLN: 175550033214

Dear Taxpayer,

A personal income tax return was filed with the Pennsylvania Department of Revenue under your name and Social Security Number.

As part of an initiative to protect taxpayers against identity theft, the department requires taxpayers to confirm their identity.

Please visit [www.doreservices.state.pa.us/IDValidation](http://www.doreservices.state.pa.us/IDValidation) to answer a few questions designed to confirm your identity for the department. Once logged in, you will be asked to provide the secure Internet Locator Number (DLN) that appears above, along with the last 4 digits of your Social Security Number (SSN). You will be required to input the exact dollar amount from line 29 of your Pennsylvania Personal Income tax return for the Tax Year that appears above. After your identity is confirmed, there will be a series of questions related to your personal identity. Once identity verification is complete, the department will process your tax return. However, if your verification is not successful, your account will be adjusted and additional information will be required. You can check on the status of your return within 3 to 4 weeks of completion. For more information, visit [www.revenue.pa.gov](http://www.revenue.pa.gov) and using the "Where's my Personal Income Tax Return?" link.

department's identity validation is





# Agenda

## 1 What is IMb?

A brief description of the Intelligent Mail barcode and what you will see in the presentation.

## 2 Business Needs

Discuss the business side of IMb, the history behind it and the reason it was needed at DOR.

## 3 Project Management

Review the project management side of the project.  
Review stakeholders, flows, requirements, etc.

## 4 IT Perspective

Review project implementation from a developers perspective.

## 5 Statistics

Review project statistics.





# Business Needs

*Presented by Christine Sehar, Business  
Lead for the IMb Project.  
[csehar@pa.gov](mailto:csehar@pa.gov)*

# How to minimize returned mail



- *The department needed to find a way to update addresses and stay compliant with the USPS Move Update. Automatically updating addresses would eliminate manual time and processing.*
- *Solving the returned mail issue will help correspondence reach the correct address, reduce unnecessary mailing expenses, and increase collection efforts.*



# *Development of the Returned Mail Process*

- The department developed a 2D barcode in the address block on all outgoing First-Class letters.*
- When the mail piece is returned the 2D barcode is scanned and the information within the barcode is loaded to a file. The file is sent to the Satori Bulk Mailer, which sends each address through Enhanced Change of address (ECO A). If ECO A found a better address, the new address was printed on a new envelope and the department would re-mail the letter.*
- After a few years the department had less than a 1% address validation utilizing ECO A.*
- To address this on going issue, we needed to come up with another way of decreasing returned mail and updating addresses.*



# *Intelligent Mail barcode (IMb) and Address Correction Service (ACS)*

- *Utilizing Full Service  
Intelligent Mail barcode (IMb)  
provides accurate delivery.*
- *Address Correction on Full-  
Service pieces, which is free.*

# Mail handling and Accountability for Federal Tax Information (FTI) and Non-Federal Tax Information (Non-FTI)



FTI



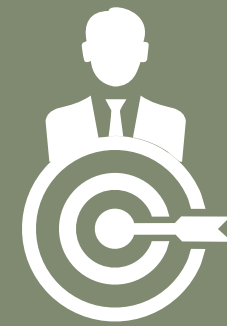
- Pieces are identified within the ACS file with Letter (R)
- Pieces are returned back to the department
- Monthly internal audit report is produced for Administrative Services



Non-FTI



- Pieces are identified within the ACS file with Letter (W)
- Pieces are destroyed by the USPS – Secure Destruction

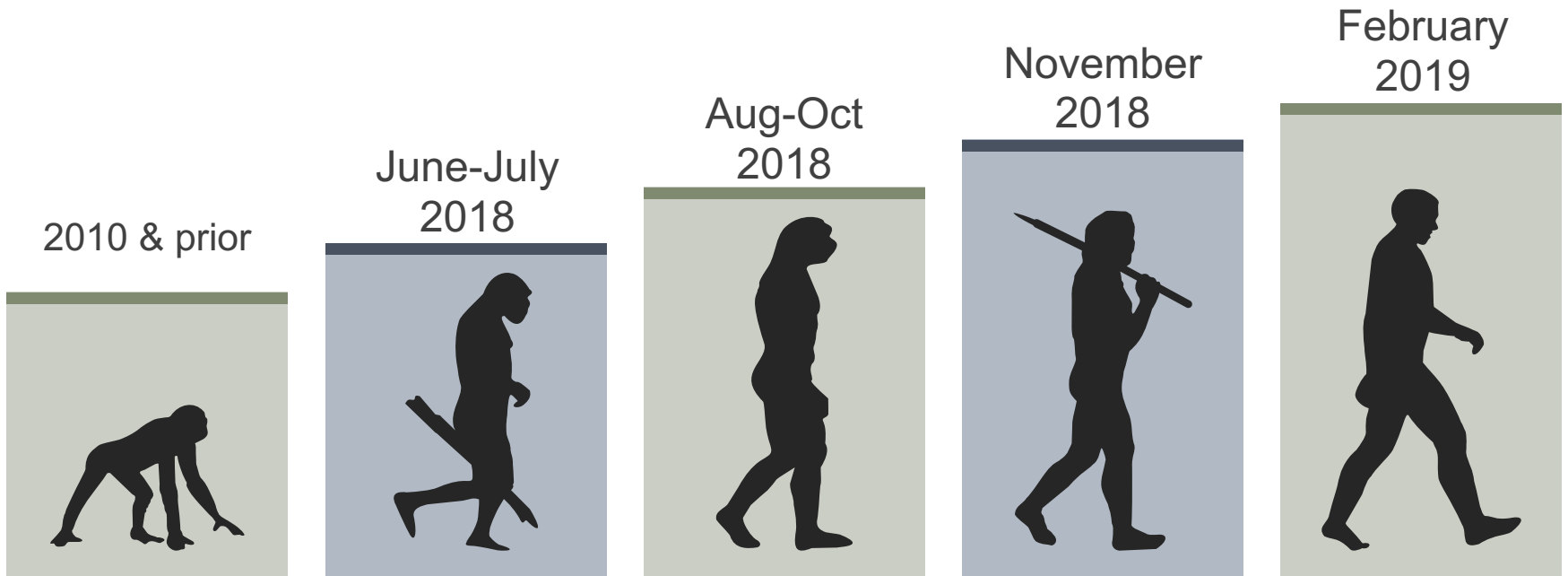


# Project Management

*Presented by Shane Lenker, Project  
Manager for the IMb Project  
[shlenker@pa.gov](mailto:shlenker@pa.gov)*



# Project Milestones



2010 & prior

June-July 2018

Aug-Oct 2018

November 2018

February 2019

### Project Requested

- Business felt a need for IMb
- Ultimately other vendors were selected for address verification

### Project Officially Started

- Executives made IMb an official project
- Scope Created
- Requirements Gathering
- Test Cases Created

### Development & Testing

- Started development of systems
- Started testing of systems.
- Somewhat a modified Agile process

### Personal Tax System Implemented

- PIT system first to go live with outbound IMb and Inbound ACS file updates to the system

### Biz and Mod Tax Systems Implemented

- Modernization tax system implemented
- Business tax system implemented
- Project Closed

# Project Team

## Project Sponsor

01

- Executive Deputy Secretary

02

## Project Leads:

- Project Manager
- Business Lead
- Technical Lead
- Requirements Lead
- Quality Assurance Lead



03

## Technical Team:

- IT Manager
- IT Tech Lead
- Functional Design
- Development
- Database Admin
- Papyrus (print)

## Subject Matter Experts

04

- USPS & DGS
- Business Tax
- Personal Tax
- Modernization
- Admin Services

## Executive Steering Committee

05

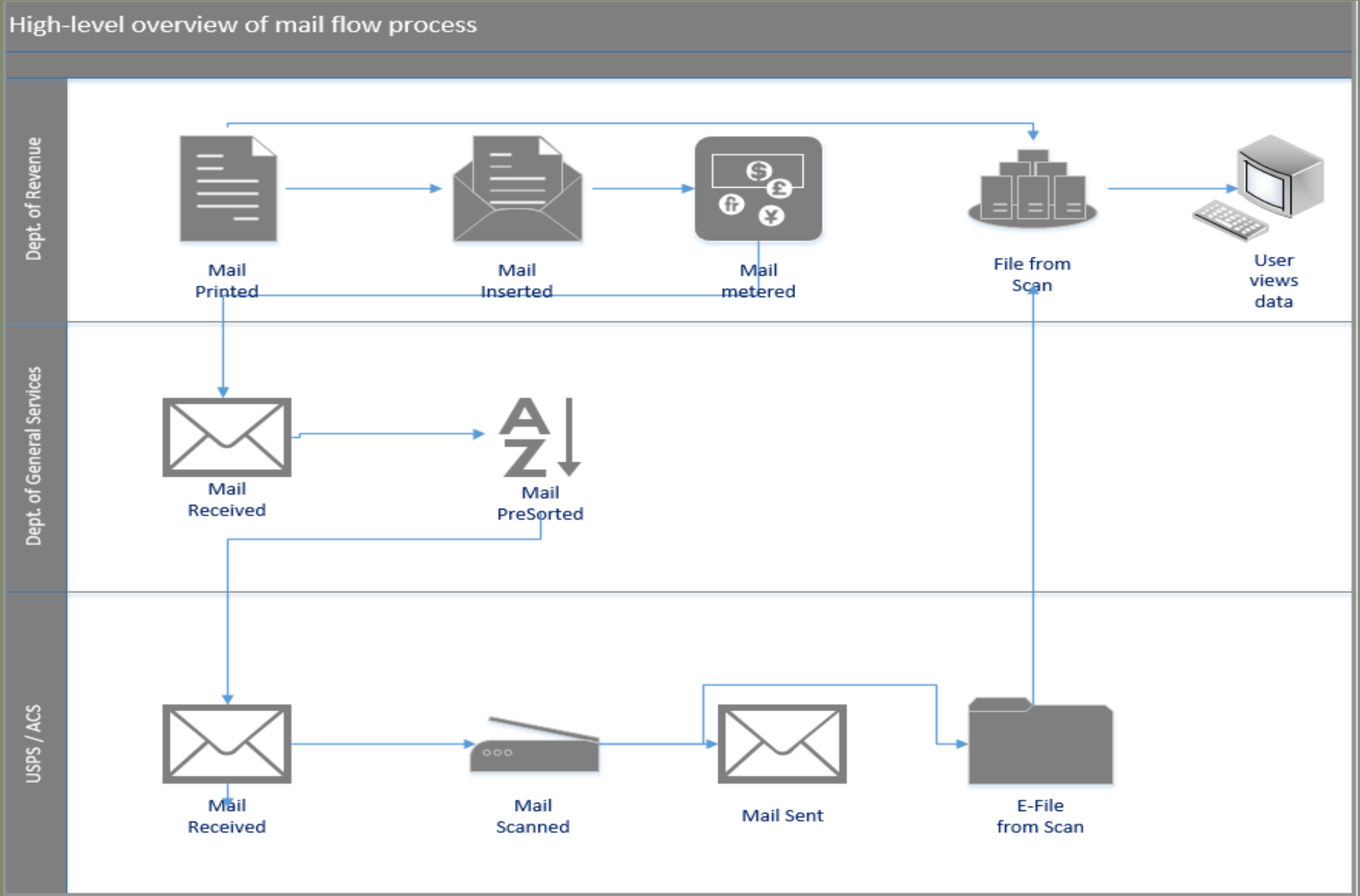
- Executive Deputy Secretary
- IT Vice President
- Three Deputy Secretaries

# Requirements

1. As a system, all outgoing correspondence must have an Intelligent Mail Bar Code (IMB) printed in the address block
2. As a DOR user I expect the following systems to use an IMB:
  - BTS
  - Manual Correspondence
  - Annual
  - RTT
  - PaTH
3. As a system the IMB must contain:
  - Service Type Identifier
  - Mailer ID
  - Serial number
  - Routing Code
4. As a system Foreign Address mail should be sorted separate to apply correct postage
5. As a system when an invalid address is return in the Address Change Service (ACS) file the system must invalidate the address
6. As a user, undeliverable FTI mail will be secure destroyed by DOR. Address Service Requested
7. As a user, undeliverable Non-FTI data will be destroyed by USPS. Change Service Requested
8. As a system when an updated address is provided by USPS the DOR systems will update to the new mailing address
9. As a system Reporting, USPS will provide Address Change Service (ACS) file to DOR
10. As a user the NIXIE code (value or text) will be stored in the tax systems and displayed in tax systems
11. Bureau of Information Systems (BIS) will split incoming ACS file to DOR systems
12. Refund checks must be returned to issuing bureau

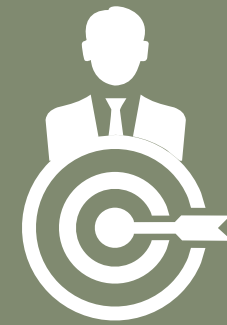


# Process Flow



# Quality Assurance Testing

- Test Plan was created
  - Identify test regions used
  - Identify defect resolution process
- Use HP ALM Quality Center software for housing:
  - Requirements Tractability
  - Test Case Creation
  - Test Runs
  - Defect Resolution
- Some pain points
  - Security would not allow us to use cell phone apps for testing the Imb data when scanning the barcode.
  - Had to use hand scanners which only provide numbers, not literal codes and street addresses
  - Staff schedules
  - USPS would not send test files. We had to mock ourselves.
  - Generating correspondence to test was challenging
- End on a good note
  - Little delay in overall schedule
  - Communications
  - Team Effort

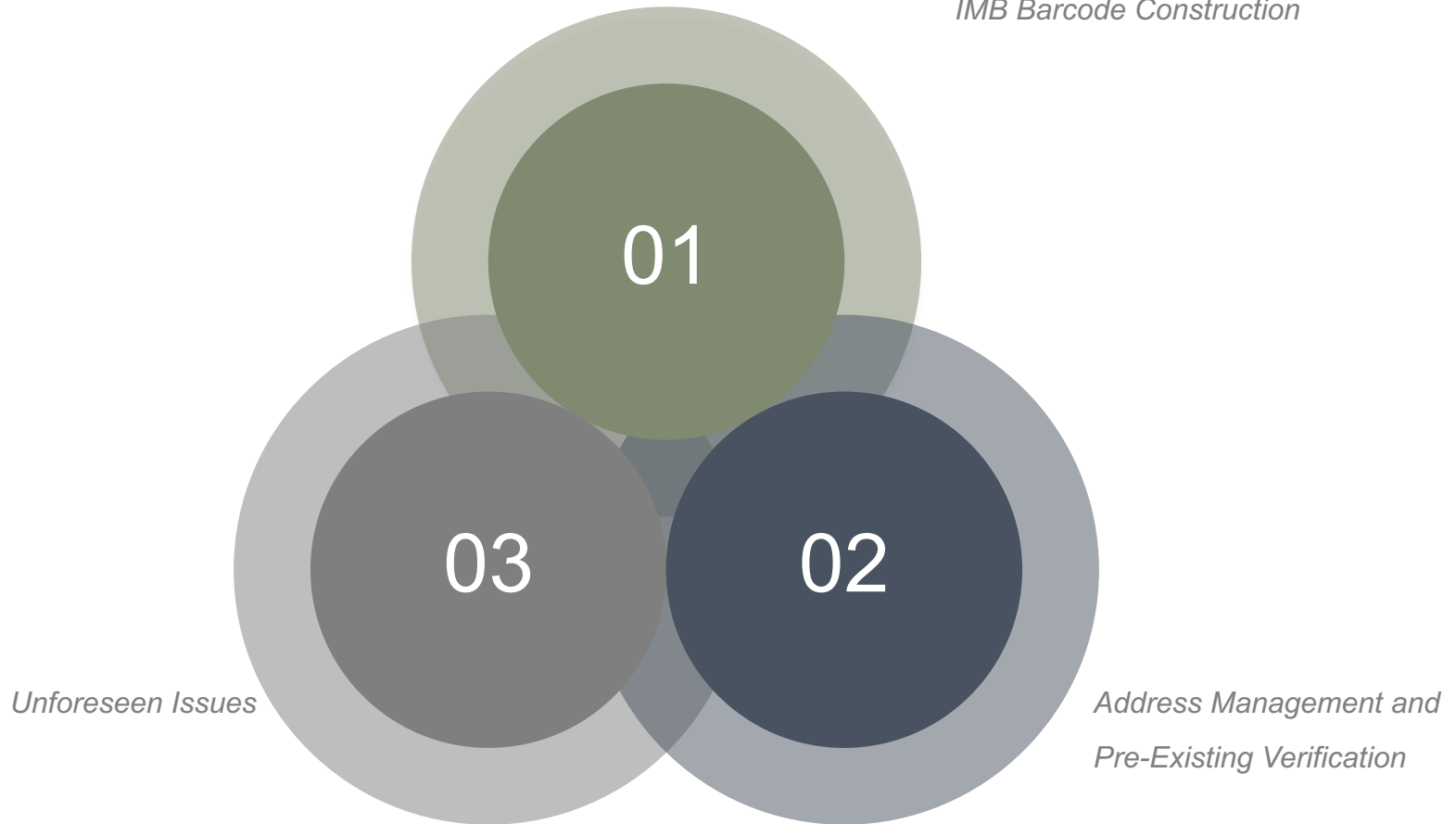


# Information Technology

*Presented by Michael Justice, IT Lead for  
the IMb Project  
[mjustice@pa.gov](mailto:mjustice@pa.gov)*

# Implementation Experience

*IMB Barcode Construction*





### Sequence Number

- *Unique Identifier for IMb only*
- *Need to tie to Unique ID for System*
  - *(Business ID, Etc.)*

### Sequence Number 45 Day refresh

- *Recycle every 45 days or not?*

### Mailer ID

- *Static number, identifying your business, bureau, etc.*

### FTI vs Non-FTI

- *Unique Mailer ID for each?*
- *Merge Mailer ID's?*

### Mailing Volume

- *May determine how to handle FTI/Non-FTI scenarios*
- *Future proofing*
  - *Adding more outbound mail*

**? = Up to you to decide**



# IMb Barcode Construction



### **Pre-Existing Address Verification Systems**

- *CASS (Coding Accuracy Support System)*
- *Satori (Address Cleansing/Management)*

### **IMB Barcode and Verification Systems**

- *Implement to co-exist*
- *Removal of Pre-Verification*

### **Overwrite Protection**

- *Ensure IMB-ACS data is preferred update source*



# *Address Management and Verification*

### **Incomplete Data for Full IMB Barcode**

- *9 Digit Zips, no DPC*
- *Pre-Sort Facility Corrections*
  - *How to bring that data back for link to account*

### **Business Challenges**

- *Tax Practitioners*
- *Newly Established Businesses*
- *Multiple Tax Types to multiple recipients*



### **Personal Income Tax Challenges**

- *Address update issues due to State law*
  - *Individual or Post office*

# *Unforeseen Issues*





# Statistics

# ACS Return File

## Updated Address vs Bad Address

Month	Updated	Updated %	Invalid	Invalid %	Updated - A	Invalid - A	Updated - B	Invalid - B	Updated - C	Invalid - C
201808	12	28.57%	30	71.43%	12	30				
201809	13	29.55%	31	70.45%	13	31				
201810	4	26.67%	11	73.33%	4	11				
201811	82	32.03%	174	67.97%	82	174				
201812	3053	55.81%	2417	44.19%	3053	2417				
201901	1943	44.94%	2381	55.06%	1943	2381				
201902	2422	48.62%	2559	51.83%	2378	2527			44	32
201903	2809	22.00%	9957	81.12%	2317	5997	473	3936	19	24
201904	2188	22.78%	7415	80.97%	1743	4749	430	2639	15	21
201905	2523	25.97%	7193	78.00%	2029	4304	403	2527	25	34
201906	2001	19.54%	8239	85.29%	1421	4206	520	3925	55	100
201907	1836	25.08%	5486	78.65%	1489	3190	277	2185	70	111
201908	30	21.90%	107	81.06%	25	69	5	37		1
Totals	18916	29.14%	46000	73.59%	16509	30086	2108	15249	228	323



# ACS Return File

## Reasons Addresses Are Invalid

ACS Value	Description	Totals	%
A	Attempted, not known	9537	18.18%
E	In dispute	11	0.02%
G	Post Office Box has been closed-created from USPS-Filed COA-no new address present	196	0.37%
I	Insufficient address	4365	8.32%
K	Customer has moved and left no forwarding address-created from USPS-Filed COA-no new address present	1560	2.97%
L	Illegible	8	0.02%
M	No mail receptacle	820	1.56%
N	No such address	2434	4.64%
P	Deceased	41	0.08%
Q	Not deliverable as addressed/unable to forward/forwarding order expired	25168	47.96%
R	Refused	178	0.34%
S	No such street	1092	2.08%
U	Unclaimed	429	0.82%
V	Vacant	1917	3.65%
W	Temporary COA-no new address present-Temporarily Away is provided in the Parsed New Address field	4716	8.99%
		52472	100.00%



**Q&A**

*and*

***Thank You!***