



## **Person who led this effort or project**

**Agency Name:** Pennsylvania Department of Revenue

## **About your program, idea or project**

### **Name your program, idea or project:**

Intelligent Mail barcode (IMb) Project

### **What is the problem that you wanted to solve:**

The DOR has historically struggled with two issues as it relates to outgoing mail from the department. The first is the challenge of maintaining valid addresses in our taxing systems. The DOR doesn't always receive address updates from our customers timely, which means mail is sent out to the wrong address and then subsequently returned to the department as undeliverable. Additionally, embedded in the challenge of maintaining valid addresses is the need to stay compliant with United States Postal Service (USPS) requirements. The second challenge the DOR faces is being able to process all the returned mail that comes back to the department due to bad addressing. The latter is something for which the DOR was never able to successfully find a solution.

In early 2015, the DOR implemented a 2D barcode on outgoing first-class letters. If a letter was returned, the 2D barcode was scanned and the address information was loaded to a file. This file was then run through Enhanced Change of Address (ECO), with the intent of finding a better address. If a better address was found, the letter was re-addressed and re-mailed. After implementing the 2D barcode, the data was telling us we had a less than 1% address validation rate through ECO. The DOR knew we needed a different solution, and that solution was Intelligent Mail barcode or IMb.

### **Who was involved in addressing the problem (individual, team or group):**

The project team was comprised of staff from the DOR, the Employment, Banking, and Revenue IT Delivery Center, the Department of General Services (DGS), and the USPS.

### **How did they go about finding a solution:**

The DOR began work to implement IMb in the summer of 2018.

IMb is used to sort and track letters sent to or received by Pennsylvania taxpayers. The use of these barcodes, as seen in Figure 1 below, allows the DOR to track mail and to electronically verify taxpayers' addresses with the USPS. In cases where a taxpayer's



address needs to be updated, the DOR can now make that change in a timelier manner, which reduces the cost incurred for sending mail to the wrong address.

The project plan was designed to implement IMb on our outgoing mail in phases, by our three major tax systems. System development and testing occurred in the fall of 2018. Our first tax system to implement IMb was personal income tax in November of 2018. Our newest tax system, the PA Tax Hub or PaTH, for motor and alternative fuels, went live in January 2019. Our final implementation of IMb was in our business tax system in February of 2019.

The project plan was designed to implement IMb on our outgoing mail in phases, by our three major tax systems. System development and testing occurred in the fall of 2018. Our first tax system to implement IMb was personal income tax in November of 2018. Our newest tax system, the PA Tax Hub or PaTH, for motor and alternative fuels, went live in January 2019. Our final implementation of IMb was in our business tax system in February of 2019.

**Describe the outcome. What is the new idea, approach, program or activity:**

The individual barcode contains large amounts of data that provide the DOR with an abundance of valuable information. There are five fields that create the full barcode:

1. Barcode ID – automation price identifier
2. Service Type ID – Federal Tax Information (FTI) indicator (who destroys mail)
3. Mailer ID –bureau and tax type identifier
4. Serial Number – system created number
5. Routing Code (zip) – delivery point ZIP code from CASS

IMb is printed on outgoing mail. Taxpayers' addresses are updated with the accurate and most recent address, as provided by the USPS. Taxpayers' addresses are updated as invalid when such information is returned. Undeliverable correspondence containing Federal Taxpayer Information (FTI) is returned to DOR and securely destroyed. Figure 2 below shows an overview of the outgoing mail process.

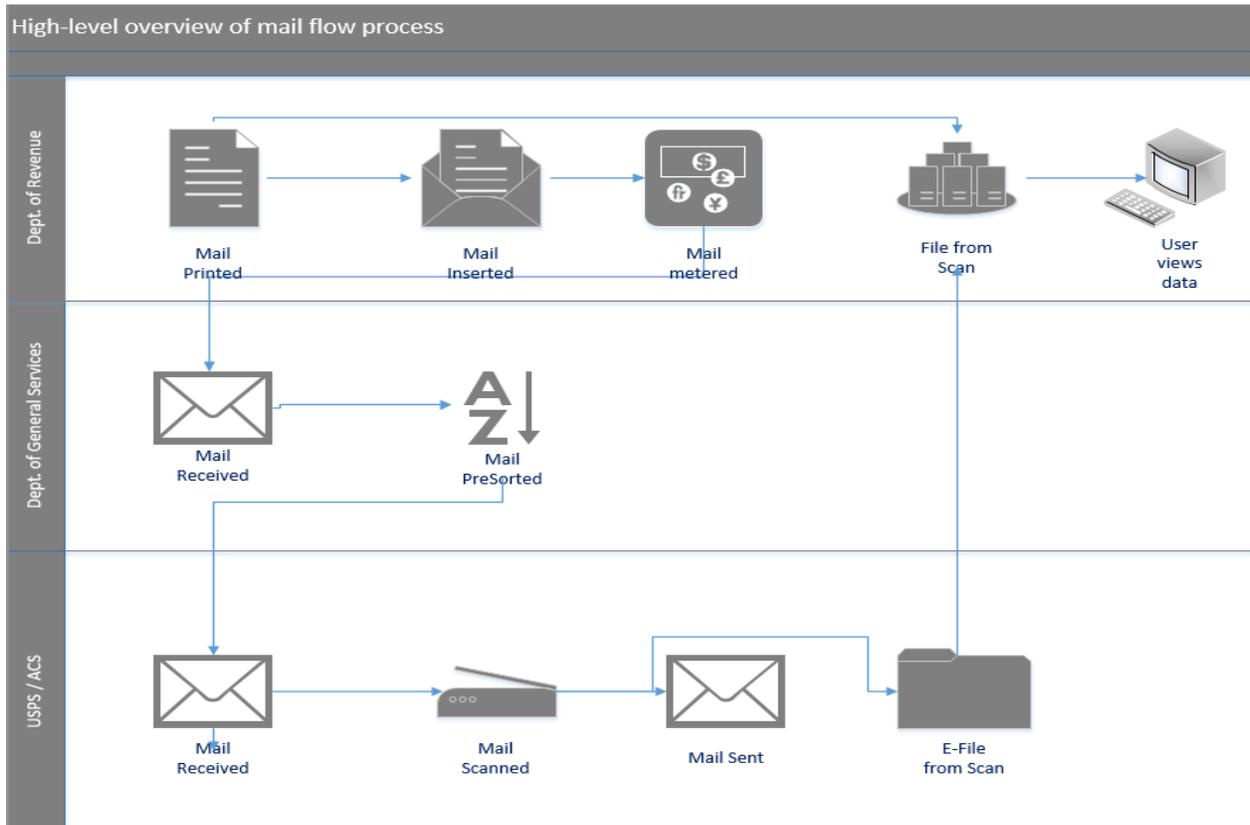


Figure 2: IMb Mail Flow Process

**What has changed this this was implemented? How have your operations improved? Include any data, analytics, or metrics that would show the value of the program:**

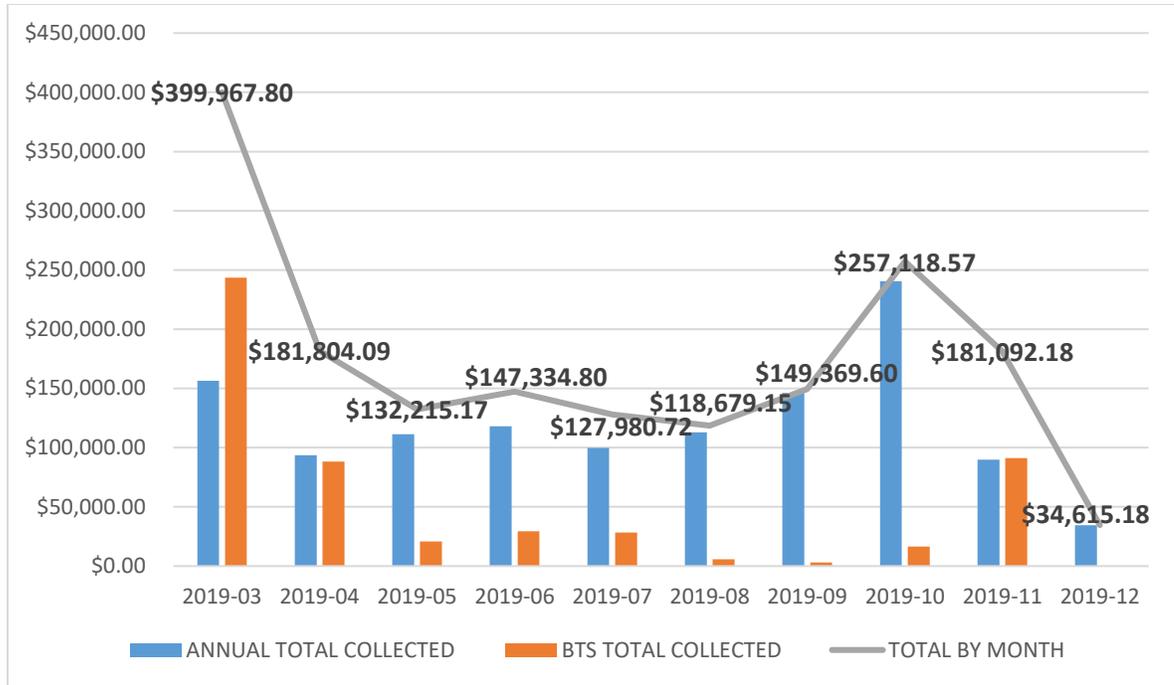
The DOR's vision is to be a leading tax administration and public service agency known for customer service, integrity, innovation, processing, and compliance that funds government services for the benefit of all Pennsylvanians.

The implementation of IMb has fostered the department's vision through the collaborative and innovative efforts of DOR, EBR IT Delivery Center, DGS, and USPS staff. The impact of their efforts are:

1. Auto-updates to DOR tax systems when newer address are available
2. Auto-notates and invalidates DOR tax systems, where applicable, for bad addresses
3. Saves the DOR time and money due to not having to scan returned items
4. Saves time and money due to not having to review returned mail manually
5. Allows DOR to receive discounts through the USPS for correct address formats
6. The greatest impact IMb has had on the department is identifying bad addresses and finding better addresses, which have led to additional revenues and a significant decrease in returned mail needing to be worked/destroyed. As of December 2019,



IMb has brought over \$2.7 million back to the department, as seen in Figure 3 below.



7. Figure 3: IMb Collections by Month

Additionally, the DOR was recognized in November 2019 with a Government Innovation Award. The project team accepted the award, in the Public Sector Innovations category, which focuses on creating or utilizing new technology to make government function better. The Government Innovation Awards are presented by two technology publications, Federal Computer Week and Government Computer News, in addition to Washington Technology and Defense Systems.



**What comes next – will you be adding to your program, rolling it out more widely, trying additional approaches:**

The project team is looking for ways to reduce the number of undeliverable as addressed results coming back to the department.