

# Intelligent Mail® Package Barcode Compliance Quality Metrics – Recap

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October 11, 2016

- Intelligent Mail® Package Barcode
  - Overview and Current Status
  
- MTAC Work Group #178 Recommendations
  - IMpb Compliance Quality Metrics
  - Measurement Approach and Transparency to Payment Systems
  - Simplified List
  - Thresholds
  - Implementation
  
- IMpb Quality Compliance Metrics
  
- Questions

## What is it?

The Intelligent Mail® Package Barcode (IM®pb) is the critical bridge between physical packages and digital information required to enable world class service and tracking for our package products.



## World Class Visibility and Service



### 100% Visibility

- A unique tracking barcode on every package
- Full end-to-end tracking
- Tracking included for all shipping products\*
- Rich digital information improves CX and performance
- Creates value!



### Customer Value

- Essential to compete
- Offers transparency and predictability
- Foundation for shipping industry
- Track all volume
- More data to support customer service

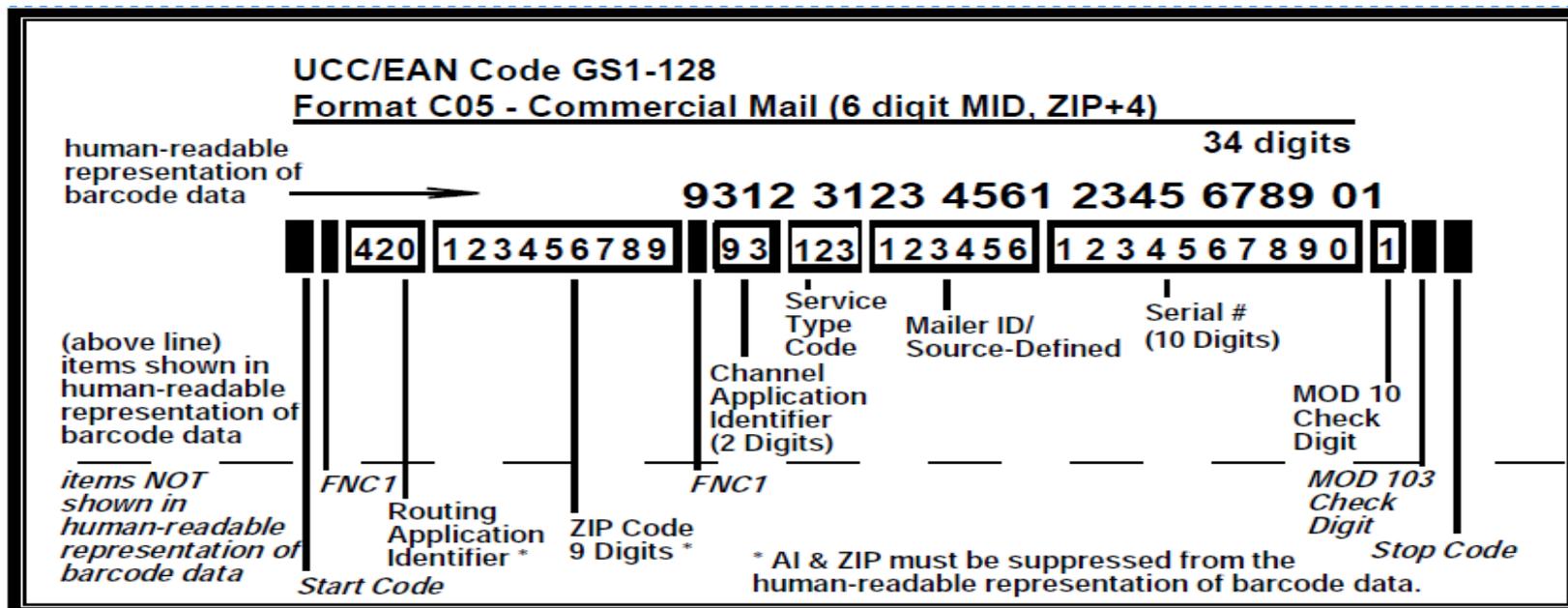


### Business Value

- Information about reliability
- Manage networks and logistics
- Correct problems
- Identify pinch points
- Innovation opportunities

***USPS Tracking is included at no additional charge for all packages except Standard Mail parcels.***

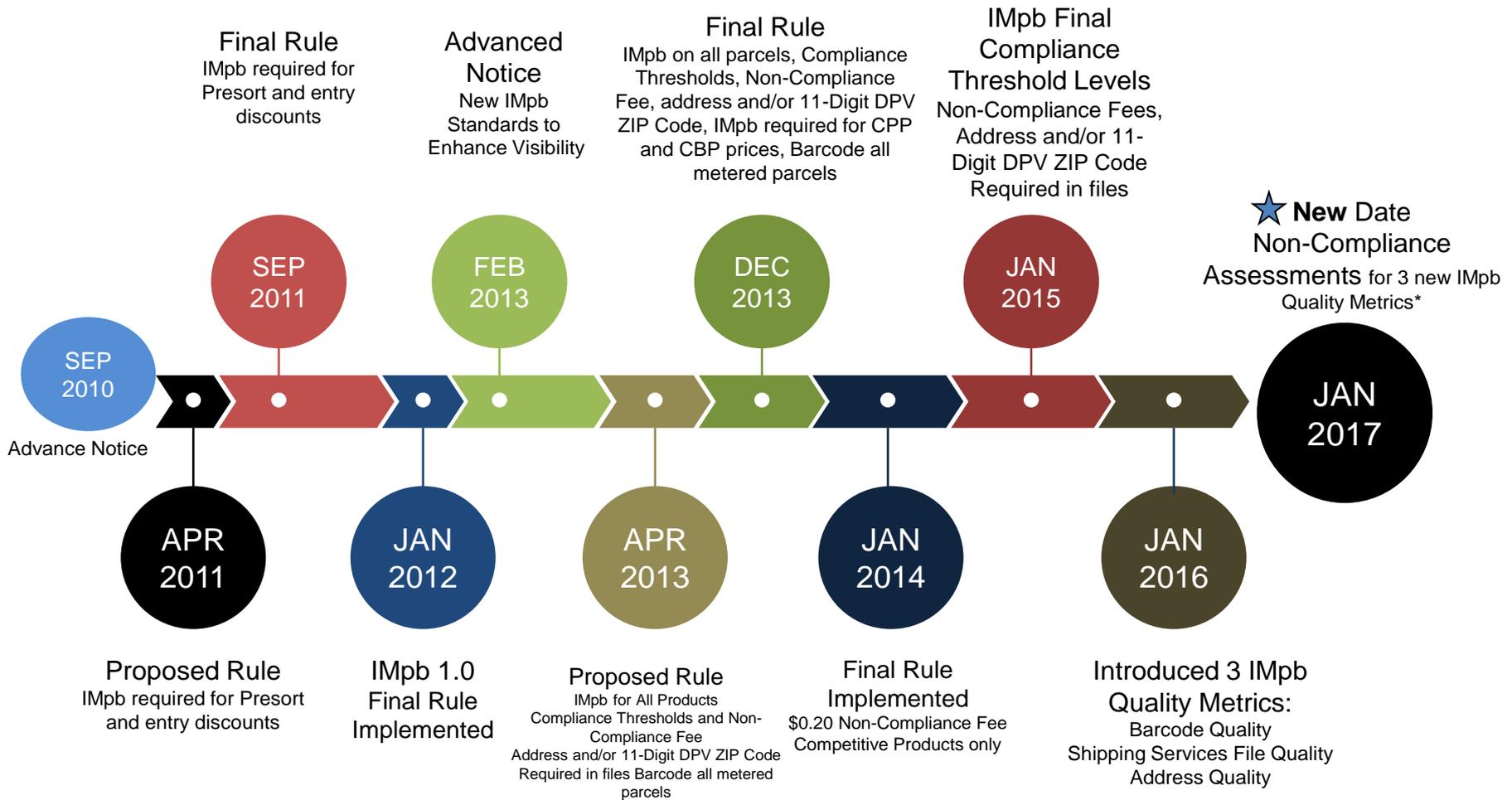
## What's in the barcode?



\*Note: Barcode is an art image only and is not to spec or scale.

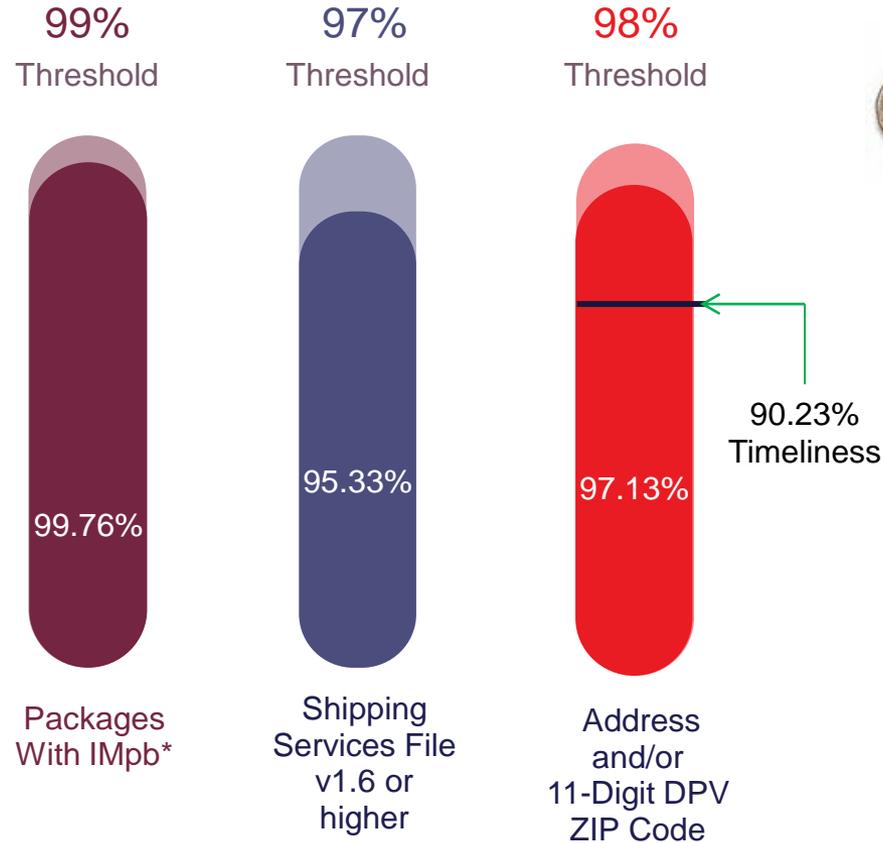
- Access to the best prices for package products
- End-to-End tracking information at no additional charge\*
- Proactively manage expectations – you and your customers know when to expect your packages to arrive
- Access to Priority Mail baked-in insurance up to:
  - \$50 for Retail and Commercial Base Pricing
  - \$100 for Commercial Plus customers
  - Note: Some restrictions apply
- Address information in shipping files supports efficient sorting to carrier delivery routes, using data instead human memory
- Three digit service type codes identify product and service
- Required for new products, services, features

*\*Except Standard Mail parcels*



\*Excluding Missing Secondary Information as part of AQ until July 2017

## Current IMpb Compliance Metrics



Source: Product Tracking & Reporting

\*Commercial parcels only

Note: Timeliness not factored into performance

## Address Quality



Measures percent of addresses\* with enough information to validate to the unique exact 11-digit DPV ZIP Code when matched against the AMS Database.

**Benefits:**

- Operational efficiency
- Enables personalized features such as My USPS
- Avoids operational costs (Manual scheme lookup/PRES Keying)
- Improves deliverability

## Shipping Services File Quality



Measures percent of manifest records that pass key package level detail validations mitigating potential errors when processed in the PTR Database.

**Benefits:**

- Supports timely postage payment and revenue assurance
- Enhances tracking and customer experience
- Provides digital awareness of packages that will be delivered by USPS
- Facilitates better workload planning
- Eliminates need for manual counts
- Enables better analytics, insights, decisions

## Barcode Quality



Measures percent of tracking numbers that pass key validations for format and uniqueness\* without errors or warnings when manifests are processed in the PTR Database and physically scanned.

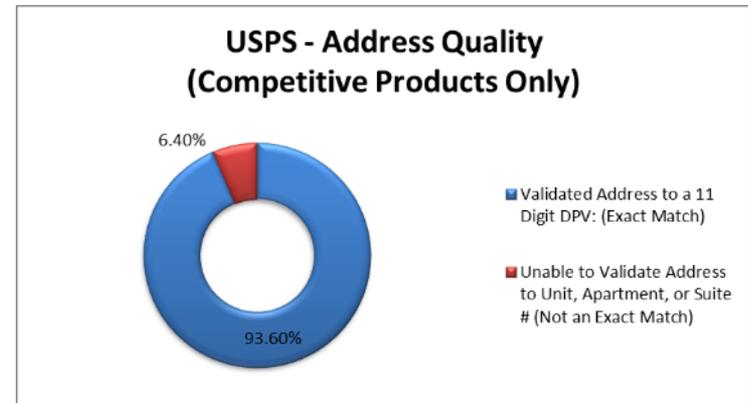
**Benefits:**

- Critical for visibility and the customer experience
- Creates the digital trail
- Supports payment and revenue assurance
- Facilitates operational efficiencies
- Foundational for current and future product offerings

### Competitive Products Only (4 AQ Validations) (Excludes Market Dominant, International, Retail Packages, and Certified Mail)



Competitive Products		
DPV Confirmation (AQ Indicators)		
Description	Percent	Indicator
Validated Address to a 11 Digit DPV: (Exact Match)	93.60%	<b>Address Compliance</b>
Unable to Validate Address to Unit, Apartment, or Suite # (Not an Exact Match)	6.40%	<b>AQ (Non-Compliant)</b>
<b>Total Volume</b>	<b>100.00%</b>	



Competitive Products			
Class of Mail	% of Exact Address Match for CoM	% of Not An Exact Address Match for CoM	% of CoM by Total Volume
Parcel Select Lightweight	94.11%	5.89%	32.17%
Parcel Select	93.68%	6.32%	28.48%
First Class Package Service	94.10%	5.90%	22.40%
Priority Mail	91.84%	8.16%	16.90%
USPS Retail Ground	95.94%	4.06%	0.05%
<b>Grand Total</b>	<b>93.60%</b>	<b>6.40%</b>	<b>100.00%</b>

Source: Product Tracking & Reporting

## Collaborative Implementation Approach

Work with Industry via MTAC Work Group #178 to simplify IMpb Compliance for Shipping Services File, Barcode, and Address Quality assessments

- Collaborate on which items to measure and thresholds
  - Highest volume and impacts
  - Straightforward
  - Low contention
  - Ensure no duplicate assessments
- Agree on compliance threshold for each IMpb Quality Metric for 2017 and 2018
  - Reasonable and achievable
- IMpb Compliance Quality assessments begin **January 2017**



Agreement between Industry and USPS on specific items that will be included in IMpb Compliance Quality assessments and the respective threshold for each quality category: Address Quality (AQ), IMpb Barcode Quality (BQ) and Shipping Services File Quality (MQ).

- Objective 1** A measurement approach that prevents duplicate penalties or fees.
- Objective 2** Transparency and visibility into how compliance is measured and fees are assessed through the payment systems.
- Objective 3** A simplified list of validations that focus on the most impactful items and minimize reconciliation issues.
- Objective 4** Achievable compliance thresholds in 2017 and 2018.



## Recommendations Summary

- Reduce the number of validations being measured for IMpb Quality Compliance to ten
  - Only assess Competitive Mail Classes for IMpb Compliance
  - Assess mailers only the fee associated to the largest compliance category for each Class of Mail or for the aggregate classes of mail – whichever results in the best performance for the mailer
- Mailers will be assessed for all pieces below the threshold
- Threshold levels for January 2017
  - Address Quality (AQ) – 89%
  - Manifest Quality (MQ) – 91%
  - Barcode Quality (BQ) – 95%
  - January 2018 (AQ – convene a new Work Group in July 2017 to set overall AQ threshold for January 2018; MQ – 94%; BQ – 98%) have been agreed upon
- Reduce the compliance categories from the current six to the three quality categories beginning January 2017, or as soon as practical
- USPS will work to create a separate IMpb Extract file to be sent to mailers which will include non-compliant package information

## Measurement Approach and Transparency to Payment Systems

- The Work Group came to a consensus on the measurement approach for IMpb Compliance.
- PTR processes events in real-time, the IMpb assessment varies if the customer is eVS or a Non-eVS mailer.
  - For eVS Mailers, the final IMpb Compliance is measured at the time of the Arrival at Unit (AAU) / 07 Event. If address is included in Shipping Partner File, manifest compliance is assessed at midnight local time of the AAU event.
  - For non-eVS Mailers, the final IMpb Compliance code is assessed at the time of mailing / when PTR received the Manifest Event (MA).
- A few things to note:
  - Only Competitive Mail Classes are currently being assessed IMpb Compliance.
  - To prevent any chance of double assessing customers, a mailer will only be assessed the fee associated to the category with the largest number of non-compliant packages (for each Class of Mail).
  - Mailers will not have an IMpb Quality Assessment charge for an eVS assessment that is rated up for a full rate (ex. Mis-shipped).



Industry and USPS have reached consensus for Objectives #1 and #2

### Objective #3: Simplified List of Validations

- For Address Quality (AQ), there are four quality validations recommended for assessment: Missing Street Number, Unable to match ZIP+4 Code, Invalid Street Number, and Missing Secondary Information. The validation of Missing Secondary Information will be deferred to July 2017 under the following conditions:
  - Begin assessing for the other three AQ validations in January 2017.
  - Fold Missing Secondary Information into IMpb Quality Compliance assessment beginning in July 2017 for the AQ category. If USPS has a structured release in July 2017 or later in the summer of 2017, this change will coincide with that release.
- Threshold would remain at 89% once Missing Secondary Information is included in the assessment.
- Continue tracking Missing Secondary Information to gather data to measure in the future.
  - Addresses that fail the Missing Secondary Information validation would include the Residential Delivery Indicator (RDI) information to show if it is business/residential addresses. The RDI will be included in the new Extract File, CEW, and eVS reports. The Work Group strongly recommends this be made available shortly after the beginning of calendar year 2017.
- Industry and USPS to reconvene in July 2017 to determine the target threshold for AQ for January 2018 based on progress.



Industry and USPS have reached consensus for Objective #3

## Address Quality (AQ) – 4 Validation Combinations

## Manifest Quality (MQ) – 4 Validation Combinations

DPV	DPV Footnote Description	July 2016 Volume	% of Total Volume	% of Total AQ Errors	PTR Indicator
AAN1	Missing Secondary Information (i.e., no Apartment or Suite Number)	7,145,428	2.23%	32.60%	AQ
A1	Unable to Match Address to a ZIP+4 Code	6,237,475	1.94%	28.46%	AQ
A1M1	Missing Street Number	6,874,957	2.14%	31.37%	AQ
AAM3	Invalid Primary Street Number	1,658,936	0.52%	7.57%	AQ

PTR Warning #	PTR Error/Warning Message	July 2016 Volume	% of Total Volume	% of Total MQ Errors	PTR Indicator
1	MQ Entry Facility Mismatch - Entry Facility Does Not Match Manifest File	12,424,767	3.87%	72.31%	MQ
136	Invalid PO of account Zip Code	1,849,601	0.58%	10.77%	MQ
1535	Invalid Payment account number	1,731,704	0.54%	10.08%	MQ
193	Invalid Method of Payment	2,907,155	0.91%	16.92%	MQ

## Barcode Quality (BQ) – 2 Validation Combinations\*

PTR Warning #	PTR Error/Warning Message	July 2016 Volume	% of Volume	% of Total BQ Errors	PTR Indicator
66	Duplicate Tracking Numbers on Multiple Packages	1,343,100	0.42%	27.97%	BQ
50	Invalid MID in PIC	3,489,103	1.09%	72.67%	BQ

\*Evaluating operational impacts.

 **Consensus**

- All other IMpb Quality Compliance validations were turned off on 7/1
- Except the following warnings which will be removed in PTR Release 10.0 on 10/2:
  - #2: BQ-Duplicate Label Event
  - #3: BQ-Keyed Tracking Label
- Secondary information address quality measurement – will be assessed beginning July 2017

Reporting Period (Sept 1, 2016 - Sept 30, 2016)



Industry and USPS have reached consensus for Objective #3

## Objective #4: Threshold Levels (2017, 2018)

New IMpb Quality thresholds levels for January 2017 and January 2018 have been agreed upon, as shown below.

Recommended Thresholds	January 2017	January 2018
Address Quality <sup>1</sup>	89%	A new Work Group will reconvene in July 2017 to set threshold
Manifest Quality	91%	94%
Barcode Quality	95%	98%

Note: <sup>1</sup> Excludes Missing Secondary Information until July 2017. If USPS has structured release in July 2017 or later in the summer, this change will coincide with that release.

Compliance Category	Current Threshold
Address and/or 11-Digit DPV ZIP Code	98%
Shipping Services File v1.6 or higher	97%
Packages With IMpb*	99%

\*Commercial parcels only



Industry and USPS have reached consensus for Objective #4

## IMpb Quality Target Thresholds Competitive Products\* Only

IMpb Quality Compliance Category		Actual Performance									Target Threshold	
		Jan 2016	Feb 2016	Mar 2016	Apr 2016	May 2016	Jun 2016	Jul 2016	Aug 2016	Sep 2016	Jan 2017	Jan 2018
Destination Delivery Address (AQ)	All 15 Criteria	90.63%	88.87%	88.91%	89.22%	89.39%	89.63%	91.09%	89.68%	90.81%	89%	TBD
	Top 4 AQ	92.70%	90.65%	91.18%	91.40%	91.51%	92.05%	93.23%	93.61%	93.17%		
	Difference	+2.07%	+1.78%	+2.27%	+2.18%	+2.12%	+2.42%	+2.14%	+3.93	+2.36%		
Shipping Services File (MQ)	All 40 Criteria	92.90%	91.37%	92.98%	91.78%	91.10%	88.64%	90.82%	91.37%	91.06%	91%	94%
	Top 4 MQ	96.15%	94.88%	95.13%	95.88%	94.25%	93.81%	94.38%	95.16%	94.65%		
	Difference	+3.25%	+3.51%	+2.15%	+4.1%	+3.15%	+5.17%	+3.56%	+3.79%	+3.59%		
IMpb Barcode (BQ)	All 14 Criteria	93.87%	95.28%	97.53%	98.36%	98.33%	98.37%	98.24%	97.14%	97.60%	95%	98%
	Top 2 BQ	94.74%	96.04%	98.69%	99.05%	98.89%	99.12%	99.04	98.75%	98.50%		
	Difference	+8.7%	+7.6%	+1.16%	+6.9%	+5.6%	+7.5%	+8.0%	+1.61	+90		

## Additional Recommendation: Simplified IMpb Compliance Categories

- The three existing categories will be superseded by IMpb quality categories
- Existing IMpb metrics will become a validation item for the respective quality metric
- The same quality threshold levels will be used as recommended by the Work Group

### Address Quality (AQ) – 4 Validation Combinations    Manifest Quality (MQ) – 4 Validation Combinations

✓ *USPS dropped 11 Validation Combinations from the Original List of 15*

DPV Footnotes	March 2016 Volume	% of Total Volume
Missing Secondary Information (i.e., no Apartment or Suite Number)	12,367,412	4.18%*
Missing Street Number	5,845,399	1.97%
Unable to Match Address to a ZIP+4 Code	5,575,827	1.88%
Invalid Primary Street Number	1,292,251	0.44%
<b>Add Missing Address or 11-Digit DPV ZIP Code Non-Compliance</b>		

✓ *USPS dropped 36 Validation Combinations from the Original List of 40*

PTR Warning #	PTR Error/Warning Message	March 2016 Volume	% of Total Volume	PTR Indicator
1	MQ Entry Facility Mismatch - Entry Facility Does Not Match Manifest File	5,780,071	1.95%	MQ
136	Invalid PO of account Zip Code	5,857,555	1.98%	MQ
193	Invalid Method of Payment	2,797,533	0.94%	MQ
1535	Invalid Payment account number	5,735,548	1.94%	MQ
<b>Add Shipping Services File Version Non-Compliance</b>				

### Barcode Quality (BQ) – 2 Validation Combinations\*

✓ *USPS dropped 12 Validation Combinations from the Original List of 14*

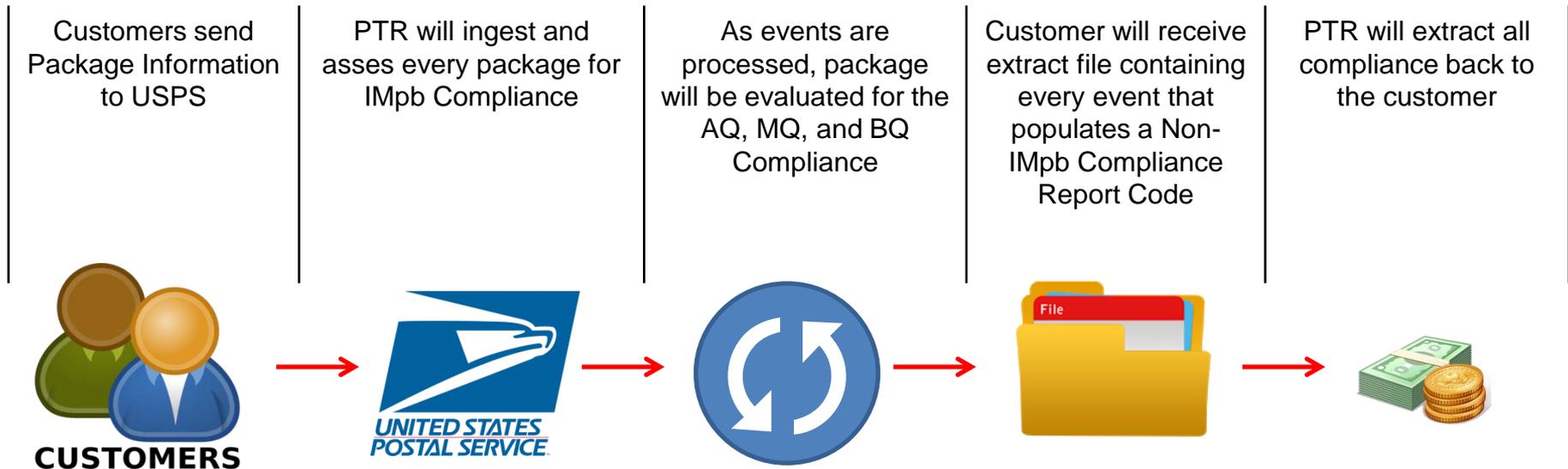
PTR Warning #	PTR Error/Warning Message	PTR Indicator	March 2016 Volume	% of Volume
66	Duplicate Tracking Numbers on Multiple Packages	BQ	1,522,889	0.51%
50	Invalid MID in PIC	BQ	2,372,063	0.80%
<b>Add IMpb Barcode Format Non-Compliance</b>				

\*Evaluating operational impacts.



**Industry and USPS have reached consensus for Simplified IMpb Compliance Categories**

- Will provide IMpb Non-Compliance visibility to customers in an new extract file. As a result from Work Group 178, PTR will create a IMpb Non-Compliant Extract the send mailers information about the packages that are identified as non-complaint.
- This extract will be available to customers that request and/or sign up for the extract and follow the same logic at the customer daily extract. The information in the extract would be focused around the IMpb Non-Complaint logic to provide event level visibility to the customers on what the compliance code is for a mail piece.



- Customer will only received IMpb Compliance information for piece that fail validations and/or were fixed to become compliant (See table below for information regarding Code after Merge)
- PTR will attempt to utilized existing business rules as in the Scan Event Extract file

Description	IMPB Report Code	Generated By	Notes
Mail Piece has Poor Barcode Quality	BQ	Warning 66, 50, or BF	Now contains BF
Mail Piece has Poor Manifest Data Quality	MQ	Warning 1, 136, 193, 1535, SF, or UN	Now contains SF, UN
Mail Piece has Poor Address Quality	AQ	DPV Footnotes A1, A1M1, AAN1, AAM3, or DZ	Now contains DZ
Piece was corrected by mailer to become compliant	OK	When a mailer corrects a package to become compliant	Will be included in the extract file
Mail Piece is a Compliant Package (No Compliant Issues to Report)	PC	When a package is compliant	Will not be extracted

- Data Fields to be included in the new extract (DRAFT):

EFILE_NBR
LABEL_ID
MLR_MID
MLR_CUST_NAME
PIC_MID
PIC_CUST_NAME
EXTRACT_FILE_VER_NBR
MAIL_CLASS
MAIL_CLASS_DESC
USPS_EVENT_CODE
EVENT_NAME
EVENT_DATE
EVENT_TIME
PROCESSED_DATE
PROCESSED_TIME

EVENT_ZIP_CODE
DESTN_ZIP_CODE
ROUTE_ID
CARRIER_ROUTE
DLVRY_ADDR
DLVRY_CITY
DLVRY_STATE
DLVRY_ZIP_CODE
DLVRY_POINT
ADDRESS_TYPE_DESC
DPV_CONFIRM_CODE
DPV_FOOTNOTE
MQ_REASONS
BQ_REASONS
IMPB_NON_COMPLIANCE_RPT_CODE
IMPB_NON_COMPLIANCE_RPT_DESC
FILLER

- PTR will also create a new internal event to inform mailers of there final IMpb Compliance Code

- ✓ USPS began providing mailers with their IMpb Quality Compliance Metrics since January 2016
- ✓ MTAC Work Group #178 will finalized recommendations on September 30 and submitted to USPS Leadership by on October 3, 2016
- ❑ Beginning in January 2017, Mailers will begin to be assessed based on Address Quality\* (3), Manifest Quality, (4), and Barcode Quality (2) validations.
- ❑ Threshold levels for these validations are as follows:
  - AQ: 89%
  - BQ: 95%
  - MQ: 91%

\*Note: There is one additional AQ validation (Missing Secondary Information) has been deferred until July 2017.

## Communicating IMpb Quality Compliance requirements and performance through webinars, local outreach, and individual meetings with customers

- Continue sharing IMpb Quality summary reports and holding individual meetings with larger customers
  - Review performance
  - Identify improvement opportunities
- Add additional IMpb Quality customer educational webinars
  - Prior to January 2017
- MicroStrategy Reports available from BMEU employees
- IMpb Compliance Reports for Non-eVS Users available
  - Implemented August 28<sup>th</sup> 2016
  - Accessible via Business Customer Gateway
- Leverage Marketing Managers at Areas and Districts



- Continue working with customers and Industry
- Successfully concluded MTAC Work Group #178 through September 30, 2016
- MTAC Work Group #178 Resolution Statement submitted October 3, 2016
- Anticipating USPS Leadership decision by October 31, 2016
- Deferred assessments until January 2017
- Deferring assessment for Missing Secondary Information (under AQ) until July 2017
- Publishing a Federal Register Notice to inform Industry of changes
  - Comments welcomed and will be addressed
- Start an IMpb Compliance sub-group under MTAC User Group 2 eVS/PTR
- Establish new Work Group to provide a recommendation for the target AQ threshold for January 2018. Work Group to convene in July 2017
- Determine when to combine IMpb Compliance Categories to Quality Categories only

**Send any question to [IMpb@usps.gov](mailto:IMpb@usps.gov)**

Topic	Date	Time*
✓ IMpb Compliance Quality Metrics – Overview	Thursday, March 17, 2016	11:30 AM - 12:30 PM
✓ IMpb Quality Reports	Tuesday, March 29, 2016	11:00 AM -12:00 PM
✓ IMpb Compliance Deep Drive – Barcode Quality	Tuesday, April 12, 2016	11:00 AM -12:00 PM
✓ IMpb Compliance Deep Drive – Address Quality	Tuesday, April 26, 2016	11:00 AM -12:00 PM
✓ IMpb Compliance Deep Drive – Manifest Quality (SFF)	Thursday, May 12, 2016	11:00 AM -12:00 PM
✓ IMpb Compliance Deep Drive – Scan Event Extract File and IMpb ACS	Tuesday, May 24, 2016	11:00 AM -12:00 PM
✓ IMpb Quality – Certification Process	Tuesday, June 07, 2016	11:00 AM -12:00 PM
✓ IMpb Quality – Electronic Verification System (eVS)	Tuesday, June 21, 2016	11:00 AM -12:00 PM
✓ IMpb Compliance General Update	Tuesday, July 19, 2016	11:00 AM -12:00 PM
✓ IMpb Compliance Work Group #178 Recommendations	Tuesday, August 09, 2016	11:00 AM -12:00 PM
✓ IMpb Compliance Implementation Plan	Tuesday, October 11, 2016	11:00 AM -12:00 PM
IMpb Compliance Quality Metrics – Recap	Tuesday, October 11, 2016	11:00 AM -12:00 PM

\*Eastern Time Zone

