



Changes and Challenges of Address Quality

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INTRODUCTIONS

YOUR BCC SOFTWARE
WEBINAR TEAM



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A 3C Approach to Address Quality

A **Complete, Correct, and Current** Address is the only way to ensure **Timely, Predictable, and Ultimate** Delivery of a Mailpiece

Complete, Correct, and Current

Complete the address

Leverage software and data to provide the missing information

ZIP+4[®], street name, city, state, directional

Correct the address

Verifies address is deliverable

Corrects misspellings

Provides approved abbreviations (Publication 28)

Ensures the city, state, and ZIP Code[™] are correct

Keep the address Current

Person, family, or business moved

Municipality introduced changes

Ongoing process

Improves data matching and consolidation

Yet, we still have a major UAA Issue

In 2022, the USPS® reported

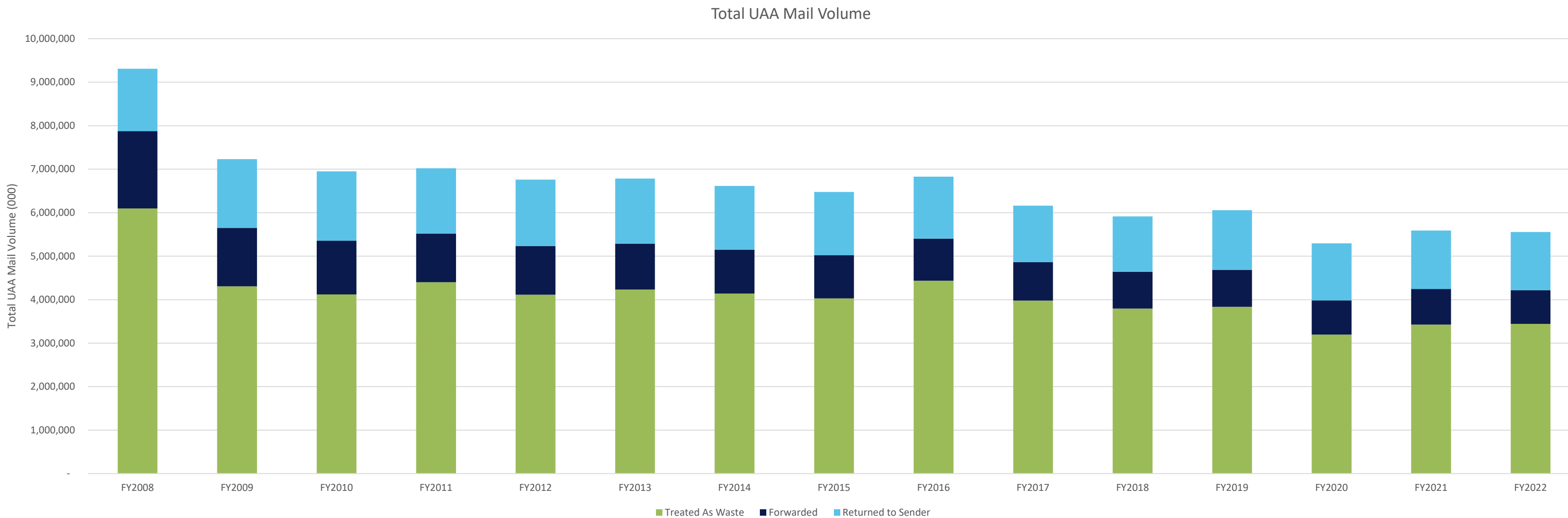
- Over 5.5 billion pieces of *Undeliverable As Addressed* mail pieces
 - 3.1 billion were Marketing Mail®
 - 2.2 billion were First-Class Mail®

Cost to the USPS and in industry, over \$1.3B

- \$226 million to forward
- \$862 million to return to sender
- \$274 million treated as waste



UAA Volumes Since 2008



2022 Unit Cost per piece

- Waste = \$0.080
- Forwarded = \$0.292
- Returned = \$0.644

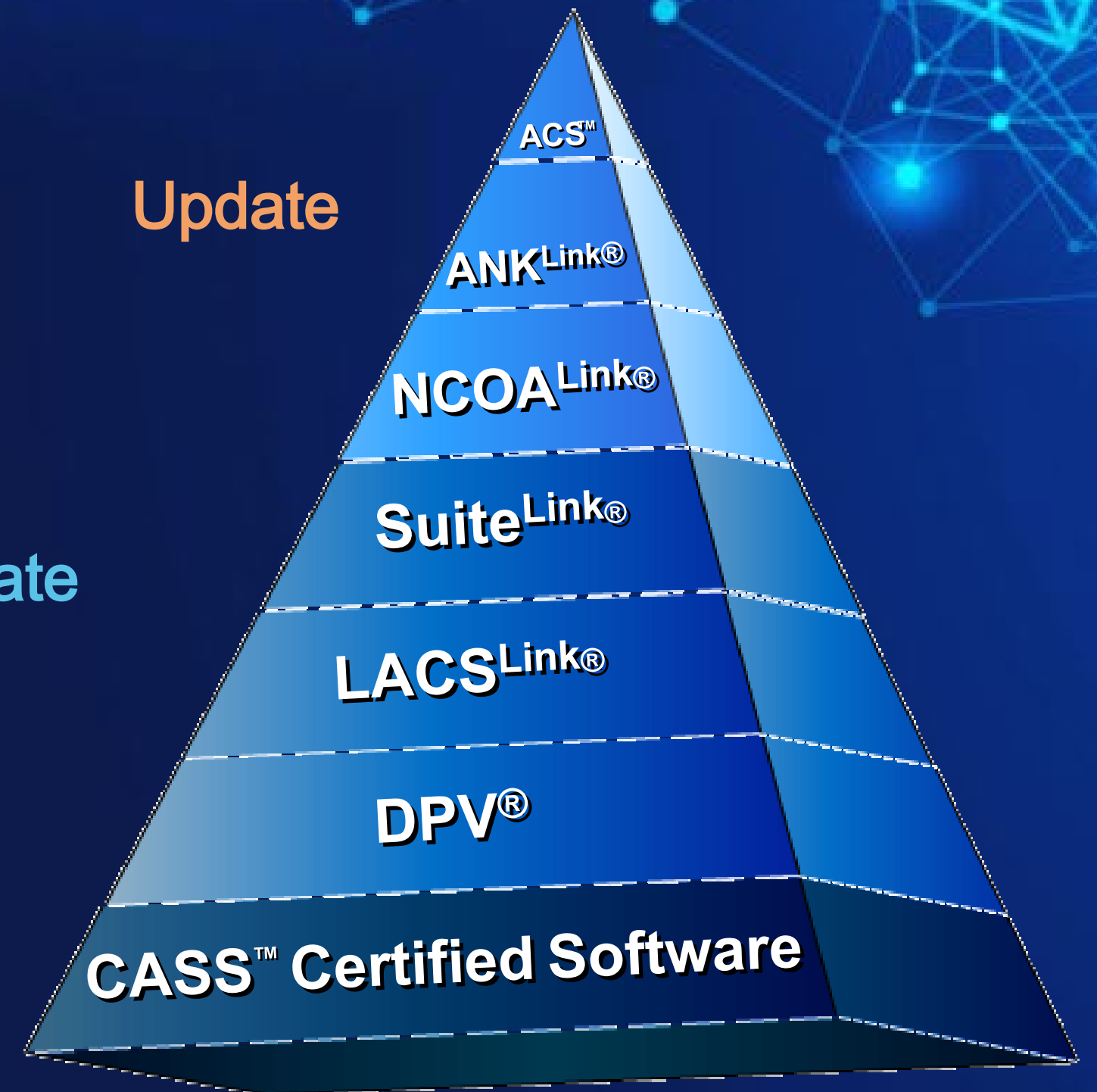
USPS Compliant Addressing Tools

USPS Compliant Address Quality Solutions

Standardize

Validate

Update



CASS™ Product

- USPS certified benchmark
- Sets minimum performance standards for commercial ZIP+4 address matching software
- Developers must pass USPS test for CASS™ certification
- Address matching software attempts to match addresses against rangebased records on USPS ZIP+4 files
- Provides carrier route assignment
- Pre-Mailing process



CASS™ Product Return Codes

10	Invalid Address	22	Multiple Responses
11	Invalid City/State/ZIP	23	Error in Primary
12	Invalid State	31	Single Response
13	Invalid City	32	Default Response
17	Insufficient Data	33	Non-deliverable
21	Address Not Found		



Should be mailed



Additional Data Scrubbing Needed



Should be removed

DPV[®] - DELIVERY POINT VALIDATION

- Extension of CASS Certified Address Matching software
- Available through software vendors
- Enhances ZIP+4 Coding & identifies potentially undeliverable addresses
- DPV- extra step to attempt validation of each specific address in the file
- Pre-Mailing process

CONFIRMED

100 MAIN ST
ANYTOWN TN 38138-6038

NOT CONFIRMED

104 MAIN ST
ANYTOWN TN 38138-6038

DPV[®] Footnote Codes

AA	Input Address Matched to the ZIP+4 file	P1	Input Address RR or HC Box number invalid
A1	Input Address Not Matched to the ZIP+4 file	P3	Input Address PO, RR, or HC Box number invalid
BB	Input Address Matched to DPV <i>(all components)</i>	RR	Input Address Matched to CMRA and PMB designator present (PMB 123 or #123)
CC	Input Address Primary Number Matched to DPV but Secondary Number not Matched <i>(present but invalid)</i>	R1	Input Address Matched to CMRA but PMB designator not present (PMB 123 or #123)
N1	Input Address Primary Number Matched to DPV [™] but Address Missing Secondary Number	F1	Input Address Matched to a Military Address
M1	Input Address Primary Number Missing	G1	Input Address Matched to a General Delivery Address
M3	Input Address Primary Number Invalid	U1	Input Address Matched to a Unique ZIP Code



Should be mailed



Additional Data Scrubbing Needed



Should be removed

LACSlink®

- A process that converts addresses that are changed by local governments
- Rural route to street style conversion
- Renumbering changes
- Street name changes

Old Style	New Style
RR 5 Box 234	5471 Apple Drive
471 Main St	1471 Main St
987 Edgewater Dr	987 Waterways Blvd

Delivery point remains the same and the residents have not moved, but the address has been changed.



SUITE^{Link}®

Improves address assignments to business addresses by adding known secondary (suite) numbers

Provided a business name and an associated ZIP+4 coded address matches to a high-rise default, the Suite^{Link} process will return the appropriate suite number when available





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Changes for CASS™ Cycle 0

DPV[®] / DSF2[®] Flags & Codes

- DNA = Door Not Accessible
- NSL = No Secure Location
- NDD = Non-Delivery Days
- PO Box[™] Throwback Table
- No-Stat Reason Code Table
 - Secondary Information Required
- LACS Only Table (DSF2[®])
- DPV[®] Codes Clarified
- Enhanced DPV[®] Codes
- Multiple Enhanced DPV Codes
- DPV[®] Footnotes – Redefined & New
 - R777/779 Route Matching
 - PBSA Identifier

DNA = Door Not Accessible

- Addresses where we cannot knock on a door to deliver mail that will not fit into the mailbox.
- Intended for any situation where we cannot physically get to the residence/building
- Software must return “Y” when Door Not Accessible address is found on the table.
- *Implement prior to Cycle O Testing - Yes*



Long Driveway/Access Road



Gated Community/Residence

NSL = No Secure Location

- Door is accessible, but a package will not be left due to security concerns.
- Software must return “Y” when No Secure Location address is found on the table.
- *Implement prior to Cycle O Testing - Yes*



NDD = Non-Delivery Days

- Mail delivery is not performed every day of the week:
 - Business closed on Saturday & does not want mail delivered.
 - Delivery Route runs Monday, Wednesday, Friday only
- Seven (7) fields representing Delivery Days are included for each address on the table.
- Software must return a “Y” for each day that represents the day(s) that do not receive delivery when the address is found on the table.
- *Implement prior to Cycle O Testing - Yes*



Sorry we're
Closed

Business Hours

Monday	9:00 - 5:00
Tuesday	9:00 - 5:00
Wednesday	9:00 - 5:00
Thursday	9:00 - 5:00
Friday	9:00 - 5:00
Saturday	Closed
Sunday	Closed



DPV[®] Footnotes Redefined & New

DPV	Current Definition	New Definition
"CC"	Input Address Primary Number matched to DPV [®] but secondary not matched (present but invalid)	Input Address Primary Number matched to DPV [®] but <i>secondary not needed (<u>extraneous information</u>)</i>
"N1"	Input Address Primary Number matched to DPV [®] but address missing secondary number	Input Address Primary Number matched to DPV [®] but address <i>missing confirmed</i> secondary number
"C1"	<i>NEW</i>	<i>Input address Primary Number matched to DPV[®] but secondary not confirmed but required.</i>
"IA"	<i>NEW</i>	<i>Informed Address identified</i>
"TA"	<i>NEW</i>	<i>Input Address Primary Number Matched to DPV[®] by dropping trailing alpha</i>
"PB"	<i>NEW</i>	<i>Identified PO Box Street Address</i>
"R7"	<i>NEW</i>	<i>Addresses that are assigned to a phantom route of R777 or R779</i>

New DPV[®] Footnotes required for both certification and in production.

NCOA^{Link}® - National Change of address

- USPS licensed product using address change information when individuals or businesses inform the USPS of their move
- Provides electronic Changeof-Address information
- Average correction rate (with new address)– 3.32%
- Three different license types
- Variable costs
- Pre-Mailing process



NCOALink® Footnote Codes for Matching Records

A	Match	COA Match: The input record matched a COA record.
91	Match	COA Match: Secondary Number dropped from COA.
92	Match	COA Match: Secondary Number dropped from input address.
01	Match	Found COA: Foreign Move. Foreign Move. The customer has moved to a foreign address.
02	Match	Found COA: Moved Left No Address (MLNA). The input record matched a COA record, but there was no new address provided.
03	Match	Found COA: Box Closed No Order (BCNO). The input record matched a COA record, but the PO BOX has been closed and no forwarding addresses was provided.

NCOALink® Footnote Codes for Non-Matching Records

00	No Match	The input record did not match a COA record.
04	No Match	Family match to a COA with a secondary address, but no secondary address was provided on input.
06	No Match	There is more than one COA record and the middle names are different.
07	No Match	There is more than one COA record and the genders are different.
08	No Match	The input record matched two COA records.
09	No Match	The input record matched a COA record from a high-rise address.
10	No Match	The input record matched a COA record for a rural or highway contract route.
11	No Match	The input record matched a COA record with the same surname and address, but there is insufficient name information on the COA record to produce a match.
19	No Match	There is a change of address on file but the new address cannot be ZIP + 4 coded. The new address cannot be confirmed on DPV or the new address is temporary.

ACS™ Return Codes

K	Customer has moved and left no forwarding address
G	Customer's P.O. Box™ has been closed and no forwarding address was filed
W	Matched with a COA order for a temporary change of address
A	Attempted, not known
B	Returned for better address
D	Outside delivery limits
E	In dispute
I	Insufficient address
L	Illegible

M	No mail receptacle
N	No such number
P	Deceased
Q	Not deliverable as addressed / unable to forward
R	Refused
S	No such street
U	Unclaimed
V	Vacant
X	No such office

Leveraging Return Codes

Input address

First Name	Last Name	
Chris	Ryan	
Alternate Address 1		
Delivery Address		
1600 Elm woods		
City	State	ZIP Code
Rochester	NY	-
CRRT	eLOT	
<input type="checkbox"/>	<input type="checkbox"/>	
Delivery Point	Return Code	FootNote
<input type="checkbox"/>	<input type="checkbox"/>	
DPV Footnotes	DPV	LACSLink Return Code
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Standardized Address

First Name	Last Name	
Chris	Ryan	
Alternate Address 1		
Delivery Address		
1600 ELMWOOD AVE		
City	State	ZIP Code
ROCHESTER	NY	14620-3862
CRRT	eLOT	
C030	0015A	
Delivery Point	Return Code	FootNote
00	32	HLMO
DPV Footnotes	DPV	LACSLink Return Code
AAN1	D	<input type="checkbox"/>

- Return Code = 32, which means a “Default Highrise Match”; ZIP+4 Code of 3862 is applied
- DPV Code = ‘D’ and the Footnote code = “AAN1”, which means the secondary number is missing

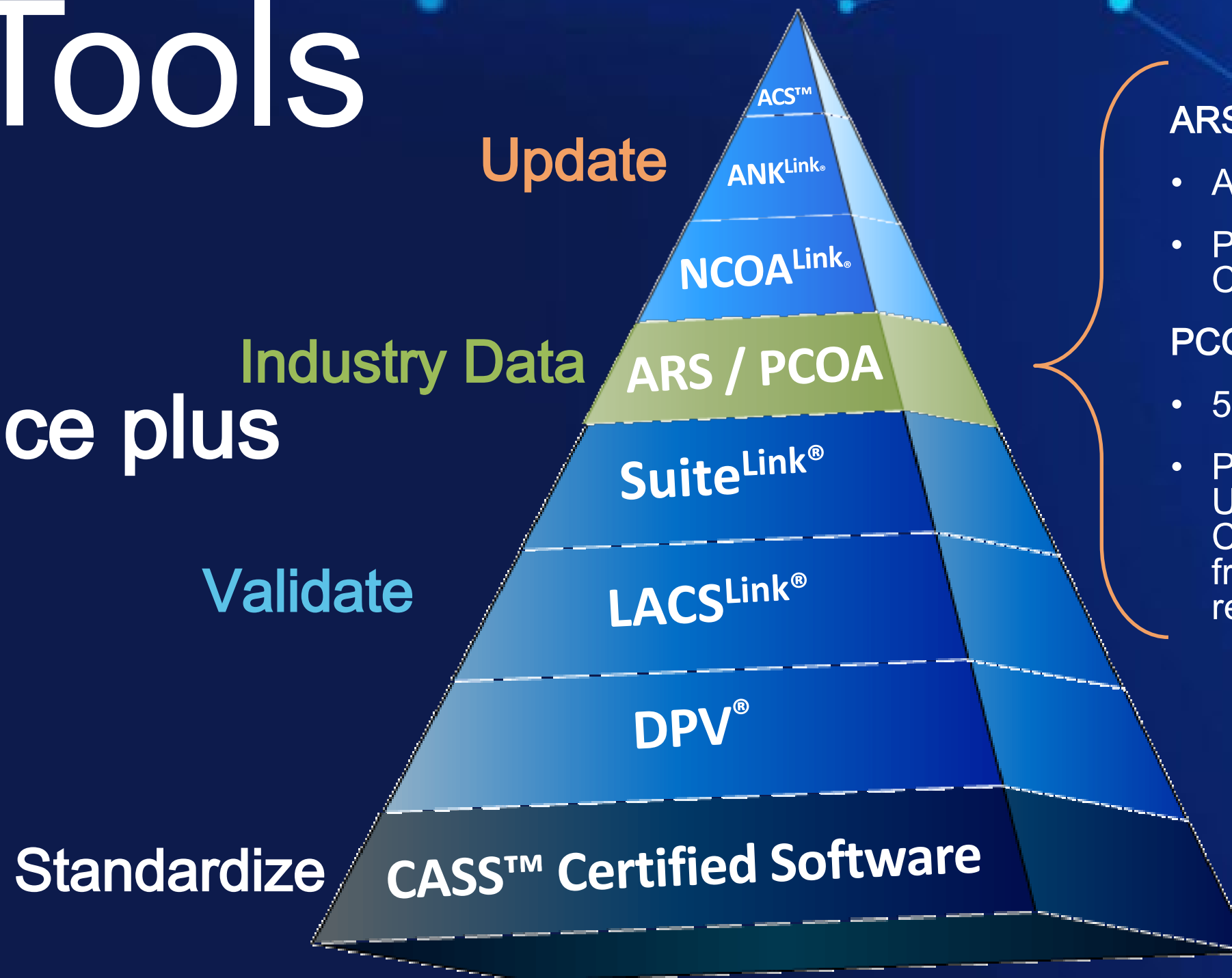
Digging Deeper into the Secondary Addresses

Interpreting the ZIP+4[®] ranges using software

CITY/STATE/ZIP: ROCHESTER NY 14602-14694 COUNTY: MONROE FINANCE NUMBER: 357105												
RESP #	ZIP CRRT	+4LO--+4HI CD A L R C	UR BANIZATION PRIM LO - PRIM HI PR	FIRM NAME STREET NAME	SUFF PO UNIT	T FIPS FINANCE SEC LO - SEC HI C						
000001	14620 C030	3862-3862 25 B H O	1600 - 1600	ELMWOOD	AVE	D 055 357105						
000002	14620 C030	3899-3899 25 B H O	1600 - 1600	ELMWOOD	AVE OFC	D 055 357105						
000003	14620 C030	3816-3816 25 B H O	1600 - 1600	ELMWOOD	AVE APT	D 055 357105						
000004	14620 C030	3840-3840 25 B H O	1600 - 1600	ELMWOOD	AVE APT	D 055 357105						
000005	14620 C030	3801-3801 25 B S E	1600 - 1600	ELMWOOD	AVE	D 055 357105						
000006	14620 C030	3862-3862 25 B H O	1600 - 1600	ELMWOOD	AVE	D 055 357105						
000007	14620 C030	3899-3899 25 B H O	1600 - 1600	ELMWOOD	AVE OFC	D 055 357105						
000008	14620 C030	3816-3816 25 B H O	1600 - 1600	ELMWOOD	AVE APT	D 055 357105						
000009	14620 C030	3840-3840 25 B H O	1600 - 1600	ELMWOOD	AVE APT	D 055 357105						
000010	14620 C030	3801-3801 25 B S E	1600 - 1600	ELMWOOD	AVE	D 055 357105						

Expanded Address Quality Tools

USPS Compliance plus Industry Data



Advanced Address Resolution Services

By leveraging USPS compliant data *plus* industry provided data sources, and searching on the name data in addition to the address data, we can correct ambiguous addresses or fix difficult address quality issues

Transposed Primary Number Example

Input Address

John Smith
231 Main Street
Rochester NY 14623



Corrected Address

John Smith
123 Main Street
Rochester NY 14623-3201

Secondary Address Information Example

Input Address

John Smith
123 Main Street
Rochester NY 14623-3201



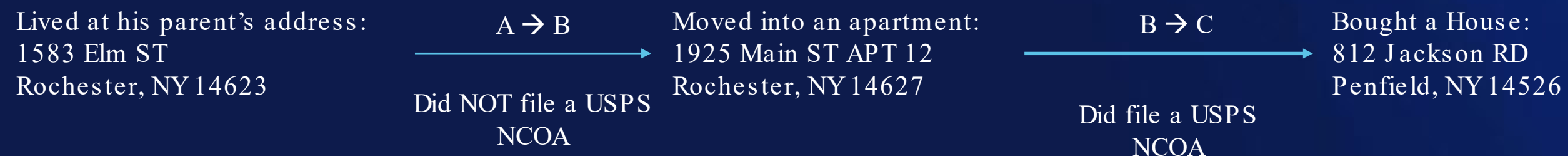
Corrected Address

John Smith
123 Main Street Apt 10
Rochester NY 14623-3260

Proprietary change of address service

- Proprietary Change of Address (PCOA) provides inferred change of-address data for non-business name and address matches to an industry provided aggregated source of industry available data
- PCOA provides an indicator of whether a multisource match occurred or not
- PCOA data can sometimes be useful to assist with chained moves when leveraged with 48-month NCOA^{Link} data

Example of a chained move for John Smith:



PCOA connected the COA chain from A→C

Mail Service Providers – Challenges with Address Quality

- NCOA^{Link} is great, but it can be a pain in the PAF!
- The Process Acknowledgement Form is required for NCOA^{Link}
- If the USPS would permit limited use of the NCOA^{Link} data to simply flag Yes or No that a move is filed, this foreknowledge could assist in reducing UAA and costly assessments
- Legal Restraint is an option for Move Update compliance, but has a lot of requirements and requires additional mail pieces

UNITED STATES POSTAL SERVICE NCOA^{Link}® PROCESSING ACKNOWLEDGEMENT FORM

The collection of information on this Processing Acknowledgement Form (PAF) is required by the Privacy Act of 1974. The United States Postal Service (USPS) requires that each NCOA^{Link} Licensee have a completed NCOA^{Link} PAF for each of their NCOA^{Link} customers prior to providing the NCOA^{Link} service. The Licensee is also required by the USPS to retain a copy of the completed form for each of its customers and to obtain an updated PAF from each of its customers at minimum once per year. Any signature upon this PAF shall be considered valid for all purposes and have the same effect whether it is an ink-signed hardcopy document or equivalent alternative.

LIST OWNER

I, the undersigned, an authorized representative of:

Company Name _____

Address _____

City _____ State _____ ZIP+4 _____

Telephone Number _____ NAICS _____ USPS Mailer ID (optional) _____ E-mail Address (optional) _____

Parent Company Name _____

Marketing or "DBA" Company Name or Primary Affiliate Company Name (if applicable) _____ Company Website (optional) _____

Name (Please print) _____ Title _____

Signature _____ Date _____

do hereby acknowledge that I have received and reviewed the NCOA^{Link} Information Package supplied to me by _____, an NCOA^{Link} Service Provider. I also understand that the sole purpose of the NCOA^{Link} service is to provide a mailing list correction service for lists that will be used for preparation of mailings. Furthermore, I understand that NCOA^{Link} may not be used to create or maintain new movers' lists.

LICENSEE

Business Name (Please print) _____

Name (Please print) _____ Title _____

Signature _____ Date _____

Telephone Number _____ Fax Number _____

BROKER/AGENT LIST ADMINISTRATOR (Check applicable box)

Business Name (Please print) _____

Address _____ City/State/ZIP+4 _____

Name (Please print) _____ Title _____

Signature _____ Date _____

Telephone Number _____ NAICS _____ Company Website (optional) _____

For Licensee Use Only

PAF ID: _____ Broker/Agent ID: _____ List Administrator ID: _____

Mail Service Providers are on the Front Line

- USPS Mailer Scorecard errors are assessed to the Doc submitter, which is usually the Mail Service Provider
 - This is part of the reason why many mailers are reluctant to go into Seamless Acceptance – fear of additional unbudgeted scorecard errors
- Assessments can be thousands of dollars
 - Very difficult for an MSP to determine which mailing caused the penalty and even more challenging to attempt to collect from the mail owner
- Move Update compliance tolerance is 0.5%, and the penalty per piece is \$.08
- Note that Periodicals are required to use ACS, and thus are not subject to the Move Update census-based verification process

Mail Owners Assume USPS and Other Agencies Share Data

- Mail owners consider the USPS a government entity and do not understand why other agencies such as DMV and SSA do not share data
 - State DMV offices may encourage people to file a change of address with the USPS, but not everyone does that and it's an extra step
- Deceased suppression notification
 - Social Security Administration has data on deceased individuals
 - Could NCOA^{Link} be enhanced to carry this data as a special change of address?
 - Note that ACS as an additional Move Update method does have a deceased indicator, but not all mail owners are updating their lists after the mailing and this data is dependent on carrier knowledge

The Future for Address Quality

- Secure Destruction
- NCOA^{Link} single address correction
- COAlert to simply note if a move has been filed
- Geocoding and USPS Mobile Delivery Devices
- CASS Cycle O

Questions & Answers



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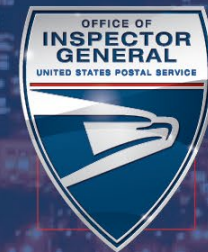
BCC SOFTWARE **USER CONFERENCE**

InfoXchange

CHICAGO
2023

AUGUST 8TH - 11TH

FEATURING KEYNOTE
PRESENTATIONS BY



OFFICE OF INSPECTOR GENERAL
UNITED STATES POSTAL SERVICE

Karen McCormick, Government Relations Manager



Data & Cybersecurity Experts

ARM YOURSELF WITH KNOWLEDGE TO IMPROVE YOUR BUSINESS EFFICIENCY AND OPERATIONS

BCC
SOFTWARE
A BLUECREST COMPANY



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