

NCOALink® and ACS™ — Which is the Best? Webinar

United States Postal Service

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NCOA^{Link}® and ACSTM — Which is the Best?

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**PCC Webinar
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Topics

- NCOA Link®/ACS™ Processes and Data
- Study
 - Purpose
 - Components
 - Evaluation
- Results
- Result Examples
- Conclusions
- Next Steps
- Plans and Recommendations
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NCOALink® Process

NCOALink® is a pre-mailing, secure automated process that allows mailers to submit a hexadecimal representation of name and address data to attempt to match to a Change-Of-Address record to find a new address. The hex match must be exact.

- Jim Dolby at 123 Main Street in Collierville TN 38017 would have a representation of **dd ec 87 6a 82 30 c0 49 fe bc ff 83 06 17 0c 8c ab 5f e3 4c**.
- Jim Dolbr**y** at 123 Main Street in Collierville TN 38017 would have a representation of **2f 84 c7 e9 41 ff a2 25 ed 53 47 74 15 cb 00 54 b6 0a 14 02**.

NCOA^{Link}® Service

- Pre-mailing Move Update method
- Data delivery from USPS® to certified licensees
- Stored in a secure format using Secure Hash Algorithm
- Three types of certified licensees:
 - Full Service Provider
(48 months, updated weekly)
 - Limited Service Provider
(18 months, updated weekly)
 - End User Mailer
(18 months, updated monthly)



ACS™ *Process*

ACS is a post-mailing process that acts on the mailpiece to determine the correct disposition of the mailpiece and generation of the mailer-requested address correction.

The match is made against text data, so slight differences are accommodated, and human interaction can affect the redirection of the mail and the address correction provided to the requester.

Jim Dolby at 123 Main Street in Collierville TN 38017 could match to Jim Dolbry at the same address, and an ACS record produced for Jim Dolbry as reflected on the COA.

ACS™ Service

- Post-mailing service provided by the USPS®
- Internal PARS/CFS database used
- Participants include an identification code on the mailpieces
 - Traditional (printed participant code as shown left)
 - OneCode ACS® or Full Service (MID in IMb™)
- Participants may use keyline or Serial Number data to match back to their customer

#BWNFXZT
#P123456789 2572X 7 #
JOHN E SMITH
916 N 5TH ST APT 3
SPRINGFIELD IL 62702-5288



JOHN E SMITH
916 N 5TH ST APT 3
SPRINGFIELD IL 62702-5288

Processes to Identify an ACS™ Transaction

Situation	Explanation
Intercept on the Delivery Barcode Sorter and other USPS mail processing equipment	Potential move match detected on Delivery Barcode Sorter (DBCS)
	Piece Routed to CLOSS for 2 OCR scans to lift data and compare if have data to proceed. If not, images routed to Remote Encoding Center (REC) to fill in data not agreed by OCR
	Use “Intercept” processing logic to determine if data matches COA record and if so, the information to be passed to the Label Run to apply the Yellow Label, as well as to generate the ACS record
Carrier identified forward (COA)	Use “Carrier Identified” processing logic to determine information for Label Run and ACS record
Carrier identified NIXIE: Return to Sender	Use “Return to Sender” processing logic to determine information for Label Run and ACS Record

ACS™ Name Matching - Flip/All

Action	When
A match will be made if the addresses match and:	Flipping the first and last name matches an Individual COA record
	All names on the mailpiece are on the individual COA but in a different order
	Either side of a hyphenated name matches the last name on family COA
NCOA matches to the numeric representation of the exact name provided	

ACS™ Multiple Name Match

Action	When
A match will be made when the addresses match and:	All names on the mailpiece match a COA
	If a move is not detected for one name, the mailpiece will be delivered to the original address
	The mailpiece will be forwarded to the COA for the first name on the mailpiece even if multiple COAs are to different locations
	Delivery Force Knowledge™ – carrier/clerk knowledge of the addressees
NCOA attempts to match to the name provided – since each name entry is separate, mailers need a process to evaluate multiple results from the same account.	

Data Age

Version	Age
NCOA ^{Link} ® Full Service Provider License 48 months	Weekly
NCOA ^{Link} ® Limited Service Provider License 18 months	Weekly
NCOA ^{Link} ® End User License 18 months	Monthly
ACS TM 18 months	Day Mail is Processed

Purpose of Study

While NCOA^{Link}® and ACSTM have different purposes and structures and produce different results by design, there is a need to understand the results produced by each on the same name and address combination.

- The mailer is expected to establish and apply internal business rules to the results of each process to determine if an update should be made to their customer file.
- If the mailer does not apply updates, he must apply appropriate non-discounted postage to the mailed pieces.

Study Components

- **Bank of America (BAC) provided USPS®** with data from 5 mailings to the same customer list, including a unique code to identify each name/address combination. Data that made an NCOA^{Link}® match were identified.
- **USPS provided** a comparison of both study participant NCOA^{Link} results against ACSTM results.
- **Joint examination of specific conditions observed** – some conditions required significant investigation.
- **Examined different logic used** in the Postal Automated Redirection System (PARS) Intercept vs. Carrier Identified and Return to Sender (RTS) modes.

Evaluation Process

- **Established a set of scenarios** to evaluate results.
- **Focused on the scenarios** to determine actions that produced what might appear to be “unexpected” actions by the mail but are really differences in the processes, the data formats used, or the human factor.
- **Researched those unexpected actions** to determine cause and correctness.

Expected Results

Situation	Result
NCOA match found, not applied – USPS ACS Change of Address (COA) generated for same NCOA match found	5
No NCOA match found, Temporary COA returned from ACS	9
No NCOA match found, Reasons other than a move (or NIXIE) notices returned from ACS	11
No NCOA match found, Delivered as Addressed	12

Expected Results

	Mailing 1		Mailing 2		Mailing 3		Mailing 4		Mailing 5	
Results	Count	Percent								
5	298	0.25%	283	0.30%	220	0.21%	272	0.26%	268	0.27%
9	211	0.17%	204	0.21%	236	0.22%	260	0.25%	201	0.21%
11	834	0.69%	542	0.57%	610	0.58%	415	0.39%	416	0.43%
12	119,651	98.63%	93,935	98.62%	104,412	98.69%	104,786	98.82%	96,012	98.35%
		99.73%		99.70%		99.69%		99.71%		99.26%
Total	121,316	100.00%	95,248	100.00%	105,803	100.00%	106,039	100.00%	97,619	100.00%

Different Results Explained

Situation	Explanation	Results
Mailer NCOA detected a COA that was not applied and ACS returned a different COA	Either there was a subsequent COA since the NCOA file build, secondary differences, or the mailer NCOA COA match was for a different name of multiples on piece	6
Mailer NCOA detected a COA that was not applied but ACS returned a NIXIE	COA was deleted, or COA active but mail still not deliverable	7
Mailer NCOA detected a COA that was not applied but ACS did not return a COA	There were multiple names on the mailpiece, mailer NCOA matched on one that ACS rules did not allow	8 ²
Mailer/USPS NCOA did not detect a COA but ACS did	Name data submitted for matching to NCOA included non-name data, misspelled names, hyphenated names or ACS was able to make a less-than-perfect address match that NCOA could not.	10 ¹
Mailer NCOA did not detect a COA but the USPS NCOA did	COA timing differences, name parsing differences, address differences	13

Different Results Explained

	Mailing 1		Mailing 2		Mailing 3		Mailing 4		Mailing 5	
Results	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
6	8	0.01%	11	0.01%	8	0.01%	10	0.01%	16	0.02%
7	-	0.00%	3	0.00%	1	0.00%	3	0.00%	5	0.01%
8	74	0.06%	37	0.04%	47	0.04%	58	0.05%	64	0.07%
10	196	0.16%	197	0.21%	226	0.21%	206	0.19%	191	0.20%
13	19	0.02%	15	0.02%	23	0.02%	13	0.01%	17	0.02%
		0.24%		0.28%		0.29%		0.27%		0.30%
Total	121,316	100.00%	95,248	100.00%	105,803	100.00%	106,039	100.00%	97,619	100.00%
6	8	2.69%	11	4.18%	8	2.62%	10	3.45%	16	5.46%
7	-	0.00%	3	1.14%	1	0.33%	3	1.03%	5	1.71%
8	74	24.92%	37	14.07%	47	15.41%	58	20.00%	64	21.84%
10	196	65.99%	197	74.90%	226	74.10%	206	71.03%	191	65.19%
13	19	6.40%	15	5.70%	23	7.54%	13	4.48%	17	5.80%
	297	100.00%	263	100.00%	305	100.00%	290	100.00%	293	100.00%

Examples of Results

- Scenario 6: NCOA^{Link}® finds match, different ACS result
 - 53 of 526,025 pieces .01%

Laurita Hamilton

1640 Simpson RD
Framingham MA 12345

NCOALink New Address:

209 Washington St
Arlington TX 12345

ACS New Address:

1207 Washington St
Arlington TX 12345

Findings- Between NCOA^{Link} lookup and mailpiece delivery, customer had submitted a new COA with the corrected primary number.

Examples of Results

- Scenario 7: NCOALink® detected COA, ACS™ result was Nixie
 - 12 of 526,025 pieces .002%

Peggy McKee

PO Box 195

Peterson NH 12345

NCOALink New Address:

107 Simpson St #12

Lowell MA 12345

ACS response:

Nixie ANK

Findings- Customer entered the COA. Between the NCOALink lookup and mailpiece delivery, either customer didn't move as intended or provided wrong address. Piece undeliverable.

Examples of Results

- Scenario 8: NCOA^{Link}® detected a COA, ACSTM did not
 - 280 of 526,025 pieces .05%

Joyce Simpson/Roderick Simpson

4604 Bingham Road
Baltimore MD 12345

Findings- Mailer's NCOA^{Link} found a COA – Individual only for Roderick. In ACS, the Delivery rule applied – if there is no COA for each name on the mailpiece, it is delivered as addressed.

Examples of Results

- Scenario 10: No match in NCOA^{Link}® for either mailer or USPS®, ACSTM provided a COA
 - 1016 of 526,025 pieces .19%

John Rydecker 9318 Hampton Blvd
 Memphis, NY 12345

Findings- No match in NCOA^{Link}®, as COA name is Rybecker. ACS matched based on name rules that are allowed when the address is a perfect match. One character can be added, deleted, transposed, substituted (except first character) in a name more than 5 characters long.

Study Conclusions

- **Reinforced the need to utilize both** pre-mailing (NCOA^{Link}®) and post-mailing (ACSTM) address quality solutions to capture a full picture of UAA mail.
- **Name matching in NCOA^{Link} and ACS utilize different rules** and the matches produced by both should be scrutinized for acceptance before making changes to Systems of Records to ensure they meet internal standards. Mailers need to develop policy around address change notifications from USPS®.
- **ACS represents what actually happened to your mailpiece.** Whether the piece was forwarded, returned, or disposed as waste, the ACS record represents the data used to make that decision.

Next Steps

- ACS™ provides additional COA matches because of the variation in the name matching process – ignores extraneous information and allows carriers to correct.
- More mailer analysis needs to be done to determine how to handle COAs for scenarios when the name does not match exactly or multiple names exist on a record.
- NIXIE data can be inconsistent based on the carrier (determining different non-delivery reason codes) and recipient (not returning the mail to the carrier) and mailers need to review their mailing objectives to determine how to use the data.

Non-Delivery (Nixie) Codes

A Attempted— Not Known	Delivery attempted, addressee not known at place of address.
L Illegible	Address not readable.
E In Dispute	Mail returned to sender by order of chief field counsel because of dispute about right to delivery of mail and cannot be determined which disputing party has better right to mail.
I Insufficient Address	Mail without number, street, box number, route number, or geographical section of city or city and state omitted and correct address not known.
M No Mail Receptacle	Addressee failed to provide a receptacle for receipt of mail.
N No Such Number	Addressed to nonexistent number and correct number not known.
X No Such Office in State	Addressed to nonexistent Post Office
S No Such Street	Addressed to nonexistent street and correct street not known.

Non-Delivery (Nixie) Codes cont.

Q Not Deliverable as Addressed— Unable to Forward	Mail undeliverable at address given; no change-of-address order on file; forwarding order expired.
D Outside Delivery Limits	Addressed to location outside delivery limits of Post Office of address. Hold mail for out-of-bounds customers in general delivery for specified period unless addressee filed order.
R Refused	Addressee refused to accept mail or pay postage charges on it
B Returned for Better Address	Mail of local origin incompletely addressed for distribution or delivery.
W Temporarily Away	Addressee temporarily away and period for holding mail expired
U Unclaimed	Addressee abandoned or failed to call for mail.
V Vacant	House, apartment, office, or building not occupied. (Use only if mail addressed "Occupant.")

USPS® Plans for NCOA^{Link}®

Action	Description
Review rules for matching to hyphenated names	COAs are entered for each last name if the signature is not hyphenated, so mailers submitting the name as hyphenated will not match
Review rules for matching to multiple names on a piece	Submission of multiple names or non-name elements via NCOA ^{Link} will not match
Review additional move types to add	NCOA ^{Link} does not currently contain COA data for moves into a CMRA

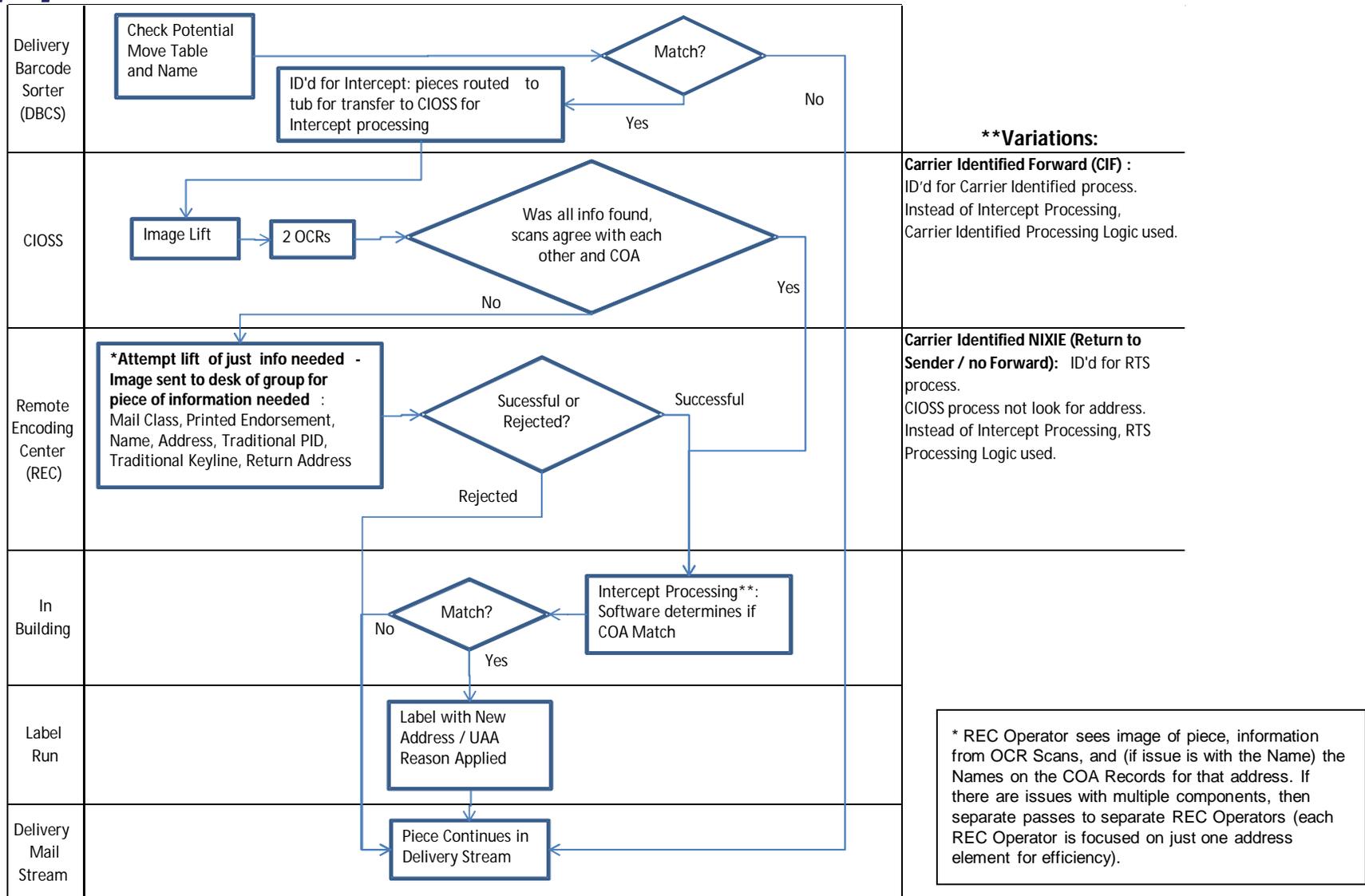
USPS® Plans for ACS™ File Format

Action	Description
Include Mailpiece ID Tag	Allows mailers to investigate whether records that appear to be duplicate are from the same piece or unique ones
Consider addition of PARS process mode	Allows mailer to know if piece was intercepted
Consider addition of COA Effective Day, and of Move Available Date	Allows mailer more specific knowledge about the COA

Recommendations to Mailers

- **Submit only the name of the actual addressee** without noise words or additional names to NCOA^{Link}® to produce the best possible match
- **Mail only to the name of the actual addressee**
- If joint, **the first name should be the primary** account holder
- Understand that mailing to the old address does not mean the piece will reach the old address – **it is highly likely to be redirected, returned, or disposed** if it is undeliverable, depending on your instructions

Appendix: PARS Related Processes



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The webinar is now concluded

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