Mailers' Technical Advisory Committee
List Certification

MTAC Workgroup 104
List Certification

Preface

Accurate addresses are the foundation for timely and predictable mail delivery. They are also the key to effectively avoid excessive and costly manual handling that negates the value of worksharing discounts. Yet too often, mailers are acquiring address lists and mailing them without a full understanding of the true deliverability of the addresses contained therein. The mailing industry and the USPS require a process that can identify addresses as being sourced from a trusted data source.

The goal of workgroup 104 is to define the details of a list certification process that would ensure addresses are kept complete, correct, and current throughout the various industry stakeholders and thus support the USPS initiative to reduce UAA mail by 50% by the year 2010.

The List Certification program provides an opportunity to identify and respond to suspect undeliverable-as-addressed mail in both a proactive and reactive manner. It establishes criteria of excellence in address quality, an opportunity to enhance mail acceptance and validation, and a dynamic post-mailing feedback mechanism that can provide suggested address corrections back to the original list source.

There are three key areas to list certification:

1. The criteria for becoming a Certified List Administrator.
2. Specific policies for validating that the name and address on a mailpiece are from a trusted, certified source and thus is a complete, correct, and current address.
3. A dynamic post-mailing update system that can capture and share intelligence regarding UAA mail to certified list administrators.

This document provides detailed information about these three areas as well as definitions pertaining to list certification. Finally, there are sections in this document that take the reader through specific scenarios of application under a list certification program.

MTAC Workgroup 104
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Definitions

The following words are used extensively throughout this document and thus are defined here for readability.

Certified List: A certified list is defined as a list of certified addresses.

Certified Address: A certified address is one in which tools, technologies, and best practices in address quality (such as those suggested by workgroup 97) are applied on a regular basis to both the recipient and physical address elements (name and address combination). It should be complete, correct and current.

SHA: SHA stands for Secure Hash Algorithm and reflects a methodology whereby address elements, including name as well as the address and other related information (i.e. the date of an applied address quality methodology), can be represented by a key or value. This key can then be compared to another key algorithmically generated from an address to determine if the addresses are themselves equivalent. This matching methodology is the same used in USPS address cleansing tools such as NCOA^{Link}™. By matching keys against keys, names and addresses need not be utilized or stored.

List Administrator: The entity that has the ultimate responsibility for maintenance of the address information contained in the list. They are responsible for implementing the USPS defined practices intended to produce the highest quality list for use in generation of mail.

Certified List Administrator: These are List Administrators that have been certified by the USPS to ensure that their addresses are complete, correct, and current by applying the appropriate standardization, validation, and updating tools in a timely manner. A Certified List Administrator has access to the list of suspected not-certified address SHA values posted in a secured USPS file.

Non-Certified Addresses: These are addresses in which some level of deficiency is detected, thus resulting in the address being considered potentially UAA (undeliverable as addressed) or PKR (personal knowledge required).

CALI: This is the Certified Address List Identifier, which uniquely identifies the source of the certified address (i.e. the Certified List Administrator) and the list among other lists from the same source. The CALI would ride along with the address and could be placed onto the mail piece (i.e. as a Business Entity Identifier in the Intelligent Mail Barcode). A unique CALI would be generated for each certified list administrator and list made available for mailing, with the number provided by the USPS.

CARL: This is the Corrective Action Recommended List, which contains the Non-Certified Addresses represented as SHA values along with a suggested corrective action code. This list is maintained by the USPS National Customer Support Center and is leveraged by Certified List Administrators to aid in resolving suspected address deficiencies. There are thresholds of occurrences in the mail stream to get on this list. There needs to be a mechanism to remove an erroneous entry. SHA values will be deleted when they have not been mailed for some given period. Matching CARL is rigorous, literal and exact, though variants can be generated outside of matching to CARL. The main advantage of CARL is that once UAA is generated by any mailer using certified lists, all other such mailers can obtain the information, and decide for themselves whether to pursue further confirmation, even if they have not recently mailed the name and address combination at all. The time interval of the spread of UAA information is much reduced in this way.

Corrective Action Code: This is a code returned from CARL that indicates the next best approach or step to resolving a non-certified address. This could include the application of USPS tools such as LACS^{Link}, Suite^{Link}, NCOA^{Link}, AEC, AEC II, or other best practices in address quality.

Key Stakeholders

The mailing industry is comprised of thousands of companies working together in order to create deliverable as addressed mail pieces. These collective companies can be viewed as a value chain or almost an ecosystem centered on mail. Within this ecosystem, there are certain key stakeholders that play a very specific role in ensuring complete, correct, and current addresses.

- Postage Payers/Mailers (Require notification of address quality and changes of address on their house lists, subscribers, customers, etc.)
- List Owners (On rented lists, need to be notified as part of a certified process)
- List Brokers (May play the above role on behalf of the list owner)
- Service Bureaus (Could process addresses, including recertification, i.e., may update accuracy and timeliness)
- Printer / Lettershops (Could be connected with bureaus, need to maintain AQ during production)
- Software Vendors (Develop systems for all above, could become brokers)
- U.S. Postal Service (Supply databases, responsible for certification requirements, perform verification and validation)

List Certification Process and Criteria

A list certification process combines not only the appropriate application of tools for standardization, validation, and updating of lists; it also includes a reporting mechanism for ensuring that these tools are applied to UAA addresses in a timely manner. Moreover, this reporting mechanism must ensure that the necessary changes are implemented by the List Administrator.

Some of the address quality tools that are applied to keep addresses complete, correct, and current are as follows.

- CASS Certified Software: This provides the foundation in address quality. It is the CASS Certified software that standardizes the address and provides a ZIP + 4 Code; a necessary component for using the other USPS address quality tools.
- DPV: Verifies the accuracy of deliverable addresses and provides footnotes to tabulate PKR
- LACS^{Link}: Validates that the address matches current municipality changes. These include municipality introduced changes such as rural route to city style addresses, street renaming, and street restructuring.
- Suite^{Link}: This provides secondary address information for business addresses, thus making the address more complete for delivery.
- AEC and AEC II: Address Element Correction provides a “last resort” approach to correcting an address using carrier force knowledge.
- NCOA^{Link}: This provides change-of-address information to keep addresses current.
- ANK^{Link}: An add-on to the 18-month version of NCOA^{Link} to indicate a possible change-of-address that may be present in the 48-month version of NCOA^{Link}.
- OneCode$^{ACS™}$: This provides a post-mailing change of address process, which also provides an important feedback loop between the USPS and the List Administrator.

List Certification Policy

There are seven key expectations related to the List Administrator and the responsibility of keeping a certified list complete, correct, and current.

1. Takes proactive steps to ensure that each address within the list represents the best and most current information regarding the recipient and the physical address elements. Suggested actions would include the following solutions being applied at least every 35 days on each address.
    a. Address is processed using current CASS Certified software
    b. All required elements are present in order to achieve a match to the USPS AMS database
    c. DPV return code of 'Y' implying a confirmed primary address and if necessary as completeness of the address, a confirmed secondary address
    d. Converted using the LACS^{Link} Product
    e. Updated from a USPS approved pre-mailing Move Update solutions every 35 days
        i. NCOA^{Link} 48-month database
        ii. NCOA^{Link} 18-month database with ANK^{Link}
        iii. Mailer Move Update Process Certification
    f. Must use the Intelligent Mail Barcode
    g. In some cases, address data that was obtained directly from the end mail recipient (i.e. a trusted data source) can also be considered complete, correct, and current
2. Establishes a process for receiving feedback from any mailing using an address generated from a certified list for all mailpieces that did not get delivered as originally addressed.
    a. Move Update alternative certification
    b. OneCode^{ACS} or traditional ACS
        i. This implies that the ACS returned address is sent back to the original list source
    c. Use of CARL provided data with appropriate corrective action applied
3. Provides appropriate guidance to all downstream / upstream entities on the correct utilization of address information contained in the certified list.
    a. Certified addresses must be rendered in at least a 30 character standardized format

   b. The OneCode^{ACS} Participant code applied to the mailpiece permits the COA data to go to the sourced data

4. Utilizes information provided via the feedback process regarding non-delivery of a mailpiece in a timely manner so as to avoid future instances of non-delivery.
5. Interacts with the USPS to reconcile any address information that fails to meet the certified address standard where the list administrator has reason to believe the problem may reside with USPS data or processes.
6. Meets the stated performance requirements for documentation and retention of documentation to allow the USPS to validate proper compliance with the list certification standards.
   a. A date and time stamp would be applied to each address that is processed
7. Extrapolates information on changes to name and/or address information as allowable and optionally makes it available to USPS for use to improve address information within other certified address lists.

Advertising and Marketing

It is recommended that the USPS compile and maintain a list of Certified List Administrators and post this list on their http://ribbs.usps.gov web page. Posting this list in a public manner provides a key marketing opportunity for Certified List Administrators.

Application for Certified List Administrator

It is recommended that the USPS create an application for companies to become recognized as Certified List Administrators. This application would contain sections similar to other USPS Product Licensing Agreements including:

1. Applicant information such as company name, address, NAICS, primary contact name, and e-mail address.
2. Information about the products used for address cleansing including the product name, software vendor, platform, and version.
3. Web access request form in order to gain access to the CARL data

Validation of a Certified Address

Information Components

The characteristics that need to be validated include the presence of all required elements (AREP), the correctness of the elements, the status of the recipient, and the dates when these elements were last updated.

Address attributes and related data that should be considered as part of a validation process include:

- Name (multiple lines possible, 30 character maximum)
- Address (new address if COA match, 30 character maximum)
- DPBC code (if available)
- Notation whether address is correct (e.g., DPV full match)
- Notation whether address is complete (e.g., DPV footnotes)
- Date of last check of move update status (or other qualifying event)
- Version of USPS databases (enables further checks)
- Mailer ID (provides security against unauthorized use)
- Certified Address List Identifier (Business Entity Identifier for certified list)
- SHA value for name, or delivery point identifier, or standardized address, or name and address or identifier (to check against Corrective Action Recommended List (CARL))

There are likely to be cases where different combinations of data will be submitted to the SHA algorithm, expected to be SHA-1. Other data can be made available without being part of what is submitted to the SHA algorithm, but strict validation is best done with a SHA digest to SHA digest comparison.

The minimum address data that fully identifies a delivery point for USPS is the eleven-digit delivery point, the primary number, and the secondary number. If this is submitted to the algorithm and matching digests required, the requirement for DPV = “Y”, that is, for a complete and correct address, can be validated. This combination of codes and numbers we are calling the delivery point identifier.

The name of the party, in other words, the addressee, can be submitted to the SHA algorithm by itself or as part of a set of fields. There can be different output message digest lengths, corresponding to different degrees of precision in terms of whether another name could have the same message digest. Since the address is specified, this does not need to be as precise as it would be otherwise. But in consideration of future applications involving elimination of inappropriate mail, the precision should be high to avoid false positives.

In order to validate the AREP presentation requirement, the standardized address itself can be used as an input to the secure hash algorithm. This requirement is important for postal operations, since the carrier must use the human readable information in order to complete delivery. While the address could be carried in plain text, and still compared to what is captured, precise matching would then be difficult. Error protection and authentication are improved by avoiding reliance on a string of numbers that can be generated by anyone not knowing the name and address.

The name of the party in conjunction with the delivery point identifier or the standardized address can be submitted to the SHA algorithm for move update evaluation. This does depend on exact matching of the name, but the USPS can derive name variations from the mail stream as they occur and create the message digests for the variants. This avoids having the USPS make any assumptions as to whether the variations represent a single person or multiple persons.

Seamless Validation and All Required Elements Present

To begin with automation mail, including letters and flats, several levels of validation will be needed. This discussion assumes that it might be difficult or unnecessary to do the maximum level of validation on every single mailpiece that is processed by USPS equipment. It also assumes that some mailers are certified for an address management process which meets higher standards of address quality and others are in an event-based mode using CASS with DPV and meeting move update standards.

The opportunity exists for the Postal Service to scan each mailpiece, but not to linger indefinitely over each one. A good set of basic checks would read the Intelligent Mail barcode and the address block, and ensure they are consistent in terms of the delivery point specified. Further checks would look for a matching move update transaction on file, as done by PARS, and checking address accuracy by determining whether there is a full DPV match or some deficiency, even if not amounting to a rate deficiency. Beyond that would be the ability to determine when a move update was first logged to the file. Even mailpiece presentation in the form of having all required elements present (AREP) can be checked. Based on the principles of risk-based validation, some mailers, including those that are certified to be capable regularly of meeting the highest standards, or others with an agreement with similar effect, may not need as much routine verification as those who have not established themselves as trusted sources.

Mailers following an event-based protocol meeting current requirements may have less control over the timing of move updating and address accuracy. Still they may in fact be investigating move update reports and requesting address accuracy confirmations using a process that includes offline components, just as the certified mailers do. They may in fact be using the Intelligent Mail barcode.

This category should be reviewed comprehensively when the mailer is first noticed, and then future validation should be tailored to their ongoing observed performance.

Mailers not using the Intelligent Mail Barcode are not able to participate in seamless acceptance. They would be subject to review by other labor intensive offline verification methods such as MERLIN since that would be the only way the mailer can be accurately identified. Presently, MERLIN provides verification on the basis of small samples of a mailing. While it is arguable that this is a statistically valid approach to verification of address accuracy, its ability to provide a complete and comprehensive verdict on issues such as move updating is limited.

All mailers should be allowed to adjudicate any reports of deficiency, whether based on small or larger samples, before there is any consideration of penalty. Mailers should be permitted as part of the list certification program to elect a whole mailing defense. This involves placing into escrow an electronic copy of the address blocks as mailed, including their address hygiene status and applicable dates, with an accompanying one-way encrypted message digest to facilitate exact comparison, and an electronic postmark applied. If captured images match these escrowed names and addresses, as shown by matching digests, and the timestamp is valid, the whole mailing defense is enabled. If the name and address file meets the applicable standards at the time it was placed into escrow, then there is no liability.

Notice that under this procedure the number or percentage of recipients that have moved is irrelevant. What is being evaluated is prior faithful execution of the rules, something that is within the control of the mailer. The results of even large sample observance in the USPS facility can provide a false positive or false negative for a host of reasons, only some of which represent deficiency on the part of the mailer or agent. Therefore mailers may wish to avail themselves of the opportunity to meet the requirements for a whole mailing defense, as part of a process of adjudication of observed deficiencies.

Mailers seeking to qualify for list certification will need to meet All Required Elements Present (AREP) standards, according to the current criteria being discussed. But they may well need to use name and address representations that are more fully standardized in order to match the Corrective Action Recommended List (CARL). To obtain a warning of a potential move update or address quality related deficiency, the message digest of the address used must match the USPS version, which will of course be standardized as the USPS defines it. To match CARL the standards must be higher than AREP because the number of variations for which to generate message digests must be very limited. AREP differs from what CARL needs to require by permitting some variation as long as AREP is satisfied. As one example, “STREET” meets AREP just as “ST” does, though “ST” is preferred. The issue is that “STREET”

generates a much different message digest than “ST”. Should CARL come into functional existence, there will be a strong incentive to use fully standardized addresses.

The Whole Mailing Defense

What level of address standardization is necessary for seamless acceptance, and for the whole mailing defense? It might seem that at least for the whole mailing defense, full standardization is necessary, because as part of the defense message digests are being compared. But what is being compared in this instance is the mailer’s own rendition of the address as scanned by the Postal Service to a digital version of itself. For that reason, the whole mailing defense only requires whatever the Postal Service requires at a given time to qualify for a rate or program. Currently this falls short of AREP. For example a LACS old side address may be paired for at least the duration of CASS Cycle L with a new side delivery point code. This would pass seamless acceptance if done during that time interval. But mailers were put on notice by USPS that this is a transitional rule and it will not necessarily be allowed in future CASS cycles.

Tangible Benefits of Seamless Mail Acceptance

The validation of a deliverable as addressed mail piece becomes more and more complicated as the USPS continues to add new requirements to CASS certified software and pre-mailing activities. Validation of a list is simply insufficient as a mechanism to ensure ultimate delivery and mailer eligibility of postage automation discounts. Thus, the USPS will have to continue to invest in mechanisms and policies to validate that each address is indeed complete, correct, and current as required by their mail class and discounts claimed.

Consider the requirements of CASS cycle L. Under cycle L, the USPS is requiring the address to be converted using LACS^{Link} provided data. While there is a one year transition period for mailers to update converted address elements, we expect this will be required on August 1, 2008 as part of CASS cycle M. In order to validate that an address has indeed been converted using LACS^{Link} data, the USPS may have to perform a comprehensive validation on all address elements. This could take a large amount of processing time, effort, and cost to validate every address as presented on each mail piece.

However, let us consider the opportunity of leveraging an indicator (perhaps modified BEI) in the Intelligent Mail Barcode that indicates that the address presented on the mail piece originated from a trusted data source: a certified list administrator. Since we know that a certified list administrator is required to leverage address quality solutions and best practices in a timely manner ensuring a complete, correct, and current address, we do not need to do a comprehensive validation on the entire address, saving time and cutting costs.

It may make sense that from time to time, the USPS may still perform a comprehensive validation on addresses from a certified list administrator, perhaps quarterly, but this is much less frequent.

This proposed concept of reduced validation for addresses sourced from a certified list administrator could become the basis for tangible benefits to not only the USPS, but also the mailer and postage payer. For example, this could include expedited mail acceptance, and even some level of discount.

To further flesh out this concept, the likelihood should be estimated of the USPS moving toward a comprehensive validation of all addresses, determining a measurement of cost avoidance with this risk-based approach, and determine what if any tangible benefits can be construed and ultimately passed through to the postage payer.

Communication Modes

The main communication mode in List Certification is through the Corrective Action Recommended List (CARL), which is outlined later in this report. CARL is fed by PARS, by other USPS sources and by industry sources. CARL is accessed by mailers at intervals. The mailers compare their SHA message digests for certified names and addresses against CARL to see whether there are any warnings of UAA or other deficiencies posted.

The work group recommendation is for a pre-mailing and a post-mailing process to be used for move update evaluation. This puts list certification at a higher level of move update effectiveness than the existing or expected postal regulations for discounted rates. This recommendation is expected to be in some ways simple for certified mailers to meet because they will be required to use CARL in order to be certified. The group takes the view that CARL can count as a pre-mailing or as a post-mailing process depending on how it is used. That means that CARL can be used in conjunction with whatever method the mailer uses to qualify for automation discounts, and this could constitute the use of a pre-mailing and post-mailing process, as long as time intervals are met.

The second communication mode in list certification is on-piece notification. Mainly this is expected to be accomplished through OneCode^{ACS}. But as a fallback, it can also be done through the conventional ACS method.

If OneCode^{ACS} is used, it may be necessary to send an electronic file to USPS to link up the Business Entity Identifier (BEI) associated with the mailing to multiple Certified Address List Identifier (CALI) codes that are included within the mailing. Since unique piece numbers are required for intelligent mail, this file can be a set of ranges of piece numbers associated with a specific CALI code. This information about list identifiers is handled through the Exception Broker function in seamless acceptance. By using this method, the BEI owner is not tasked with

directly communicating upstream to list owners or Certified List Administrators, which would be complex and difficult.

The Post-mailing Update Technology and Process

The proposal for a reporting feedback system is essentially as follows.

1. A List Administrator prepares a certified list by ensuring the names and addresses are complete, correct, and current using USPS certified tools to standardize, validate, and update the data. They may also use industry tools to further ensure completeness of the data.
2. Each name and address delivery point is converted into a SHA value and this list of SHA values is escrowed at the List Administrator's location.
3. The names and addresses are ultimately placed onto mail pieces as a result of list brokerage, printing, mail services, and other industry related activities. The rendering of these addresses is assumed to be in the same manner as what as escrowed by the List Administrator. Any change at this level will produce a different SHA value and thus hinder the ability to report address deficiencies back to the source of the address.
4. As the USPS scans these addresses using PARS and other automation equipment, those addresses that are deemed as UAA would be flagged. Once a certain frequency threshold had been reached for a particular UAA address, the address would be considered a non-certified address.
5. The non-certified addresses would have their SHA values computed along with an indicator code for the appropriate action (i.e. NCOA^{Link}) necessary to correct the address. The SHA values created will be based on the **exact** rendering of the name and address as presented on the mail piece.
6. The non-certified addresses, along with their corrective action code, would be consolidated into a list (known as CARL, the Corrective Action Recommended List) of not certified addresses and posted out on a secured USPS Internet location.
7. Certified List Administrators would download the CARL on a regular interval and compare its SHA values to their own escrowed lists. Upon finding a match, they could then take the suggested necessary steps to standardize, validate, and update the address to make it deliverable.
    a. An automated methodology could be constructed that leverages the corrective action code applied by the USPS. Based on this code, the List Administrator could automatically apply the appropriate address quality tools.
    b. Certified List Administrators may chose to find additional matches to CARL in the event of nicknames or other potential matches for suspect UAA that may reside in their own database. This could be an industry competitive differentiation.

Each SHA value in the CARL would be date stamped indicating when it was added to the list. After a specified amount of time, all Certified List Administrators would be required to have updated their lists correcting the addresses that matched the SHA values for the non-certified addresses.

A SHA value can be removed from the CARL under two conditions.

1. A sufficient amount of time has passed and the matching SHA value for the non-certified address is no longer detected during USPS processing.
2. The Certified List Administrator has informed the USPS that the suspect address is indeed deliverable. The USPS would apply corrective actions to update the AMS database to reflect the validated address.

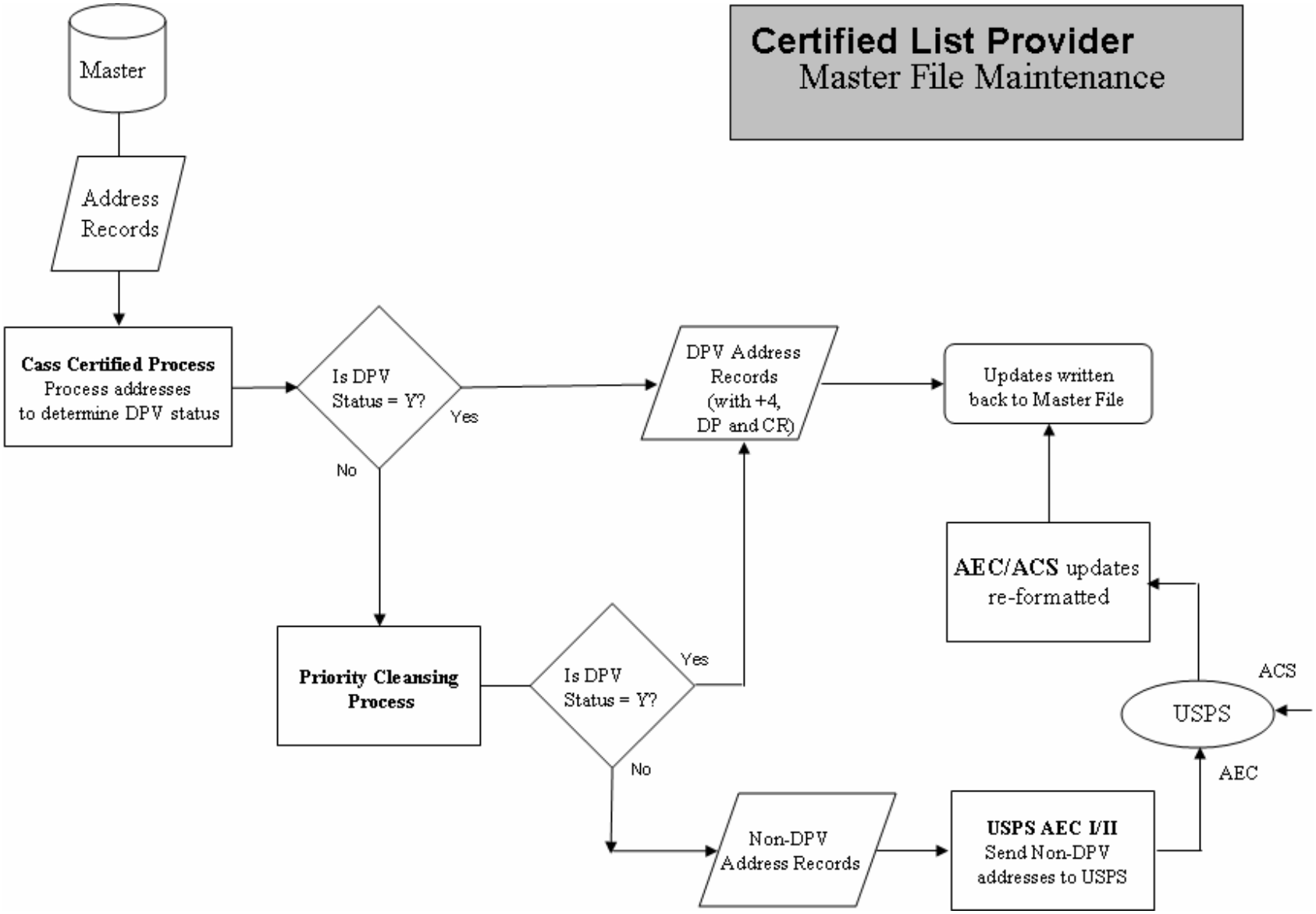
Structure of the CARL database

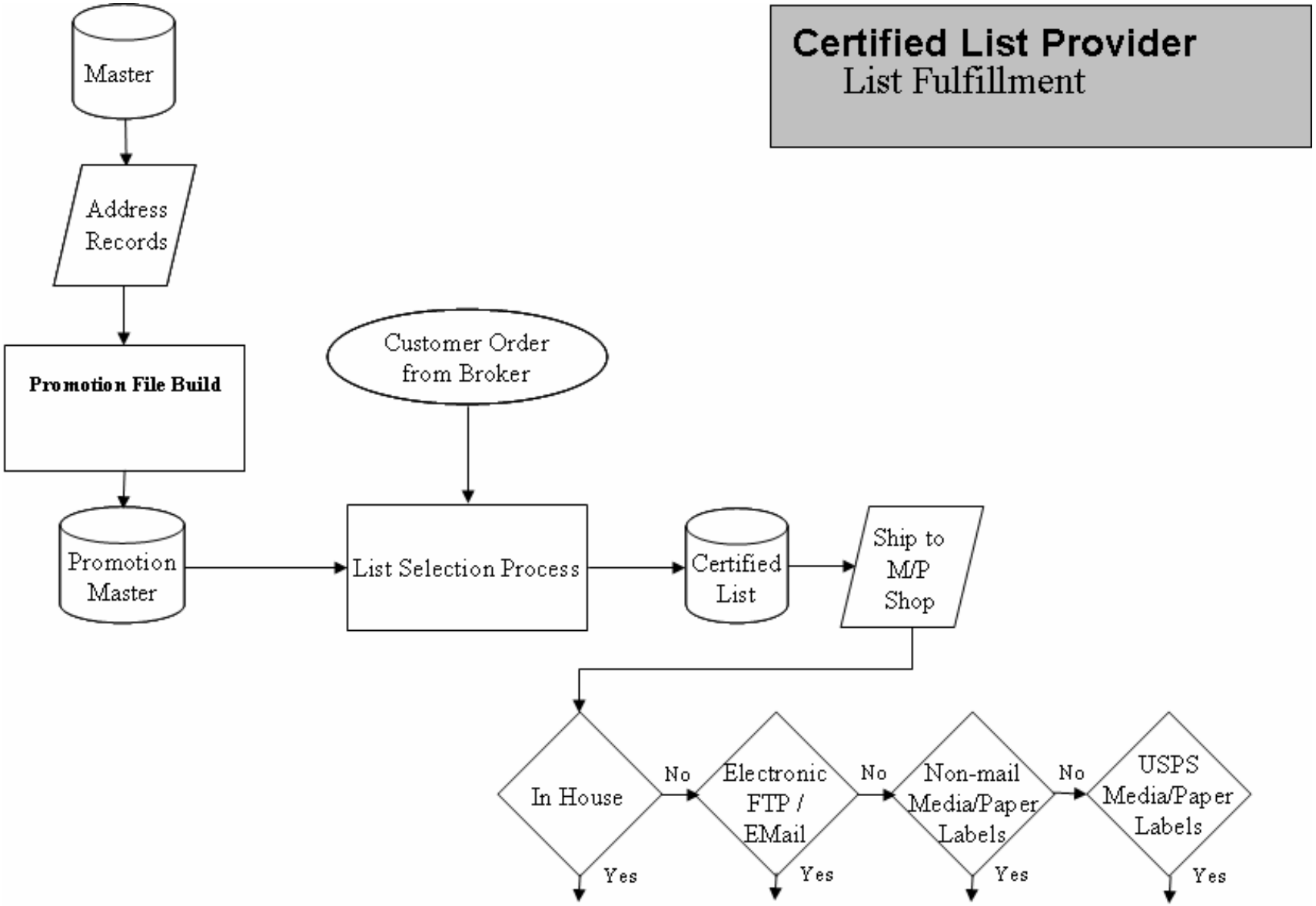
The CARL database contains SHA values of the suspect UAA names and delivery point addresses. This data is maintained by the USPS and made available to Certified List Administrators only. Note that only the SHA value of the business name and delivery point is stored in CARL.

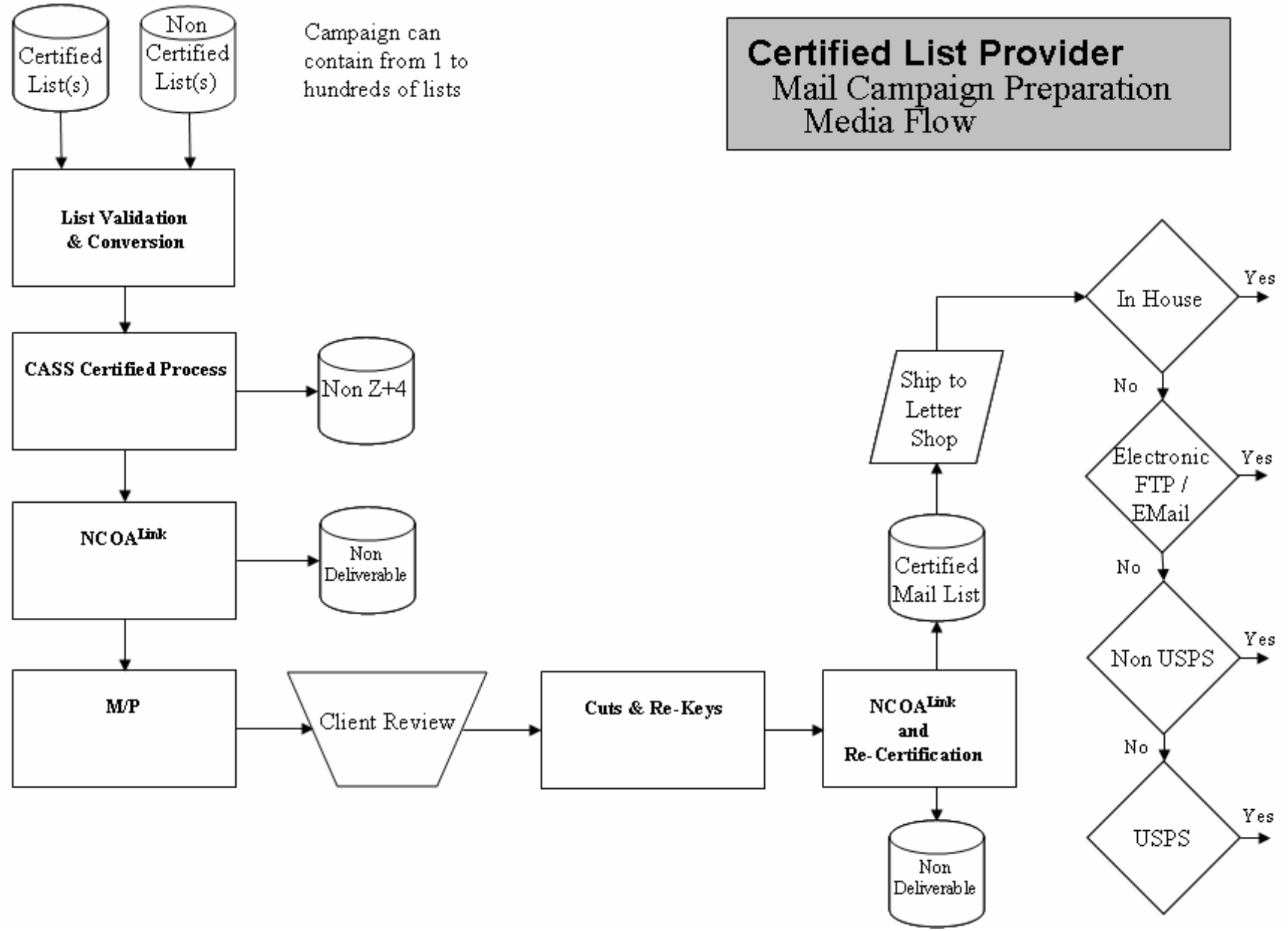
	Input Length	Output Length	Format
First Name	15	20	SHA
Last Name	20		
Delivery Point Value	11		
Middle Initial	1		
Date UAA 1	8	8	Text
UAA Reason 1	1	1	Text
Date UAA 2	8	8	Text
UAA Reason 2	1	1	Text
Date UAA Report 3	8	8	Text
UAA Reason 3	1	1	Text
Corrective Action	2	2	Text

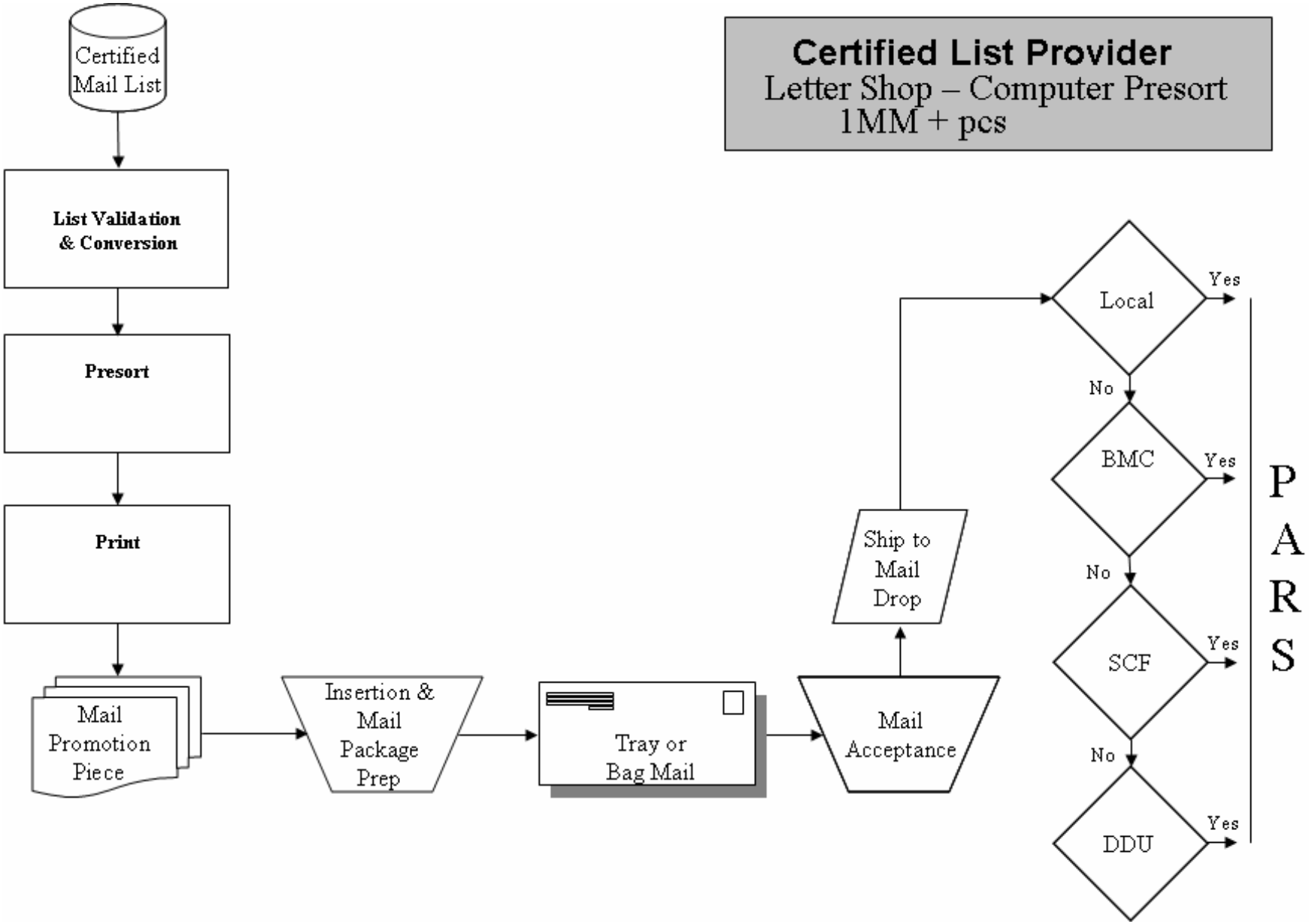
Sample flowcharts of CARL and List Certification in action

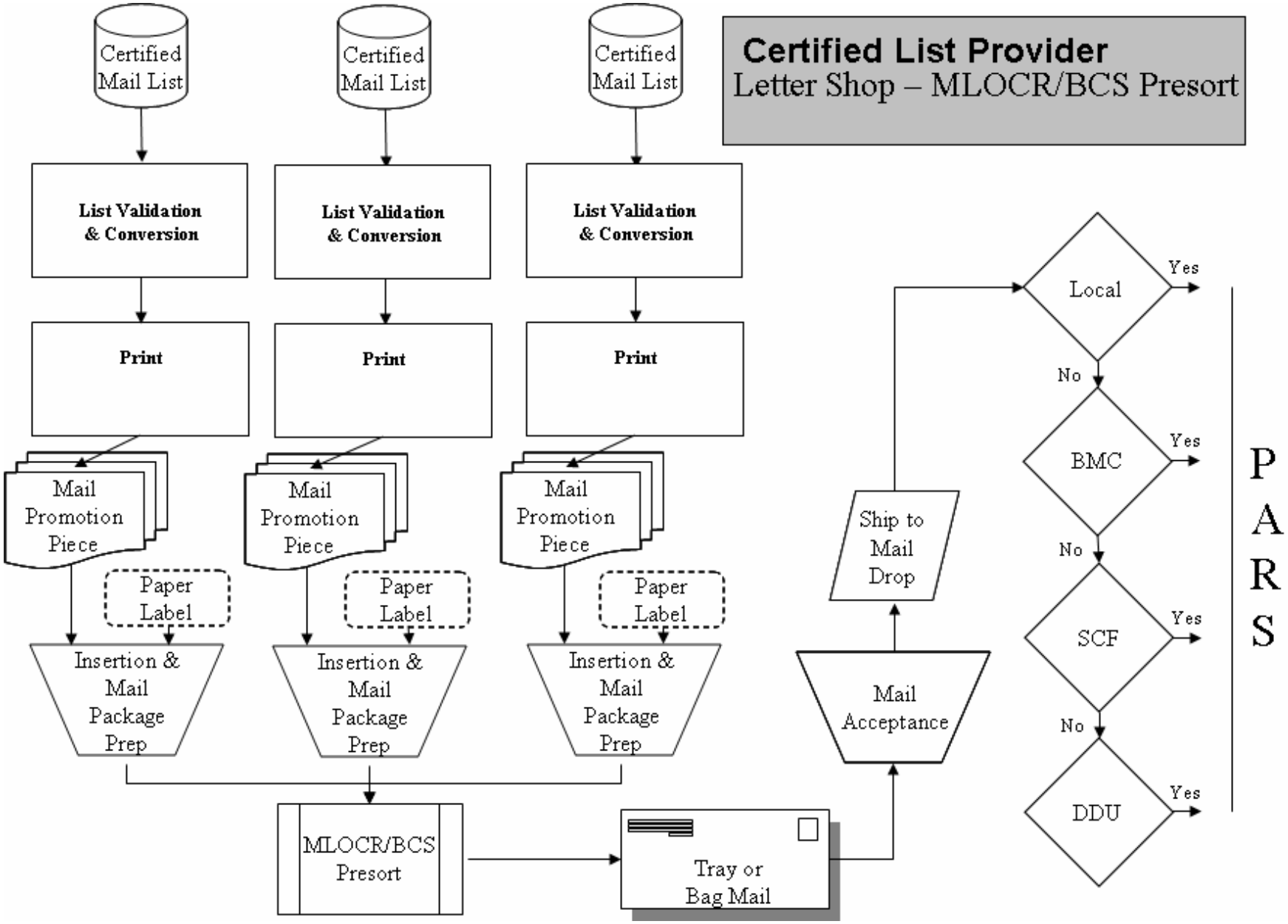
The following pages provide graphical illustrations of the list certification, CARL, and the flow of address data through numerous stages in mail preparation and delivery.


Certified List Provider
Master File Maintenance
Master
Address Records
Cass Certified Process
Process addresses to determine DPV status
Is DPV Status = Y?
Yes
No
DPV Address Records (with +4, DP and CR)
Updates written back to Master File
AEC/ACS updates re-formatted
ACS
USPS
AEC
Priority Cleansing Process
Is DPV Status = Y?
Yes
No
Non-DPV Address Records
USPS AEC I/II
Send Non-DPV addresses to USPS


Certified List Provider
List Fulfillment
Master
Address Records
Promotion File Build
Customer Order from Broker
Promotion Master
List Selection Process
Certified List
Ship to M/P Shop
In House
No
Electronic FTP / EMail
No
Non-mail Media/Paper Labels
No
USPS Media/Paper Labels
Yes
Yes
Yes
Yes


Certified List(s)
Non Certified List(s)
Campaign can contain from 1 to hundreds of lists
Certified List Provider
Mail Campaign Preparation
Media Flow
List Validation & Conversion
CASS Certified Process
Non Z+4
NCOALink
Non Deliverable
M/P
Client Review
Cuts & Re-Keys
NCOALink and Re-Certification
Non Deliverable
Certified Mail List
Ship to Letter Shop
In House
Yes
No
Electronic FTP / EMail
Yes
No
Non USPS
Yes
No
USPS
Yes


Certified Mail List
List Validation & Conversion
Presort
Print
Mail Promotion Piece
Insertion & Mail Package Prep
Tray or Bag Mail
Mail Acceptance
Ship to Mail Drop
Certified List Provider
Letter Shop – Computer Presort
1MM + pcs
Local
Yes
No
BMC
Yes
No
SCF
Yes
No
DDU
Yes
PARS


Certified Mail List
Certified Mail List
Certified Mail List
Certified List Provider
Letter Shop – MLOCR/BCS Presort
List Validation & Conversion
List Validation & Conversion
List Validation & Conversion
Print
Print
Print
Mail Promotion Piece
Mail Promotion Piece
Mail Promotion Piece
Paper Label
Paper Label
Paper Label
Insertion & Mail Package Prep
Insertion & Mail Package Prep
Insertion & Mail Package Prep
MLOCR/BCS Presort
Tray or Bag Mail
Mail Acceptance
Ship to Mail Drop
Local
Yes
No
BMC
Yes
No
SCF
Yes
No
DDU
Yes
PARS

Case Studies in List Certification

These case studies provide a step by step way to understand how the list certification process will work when encountering various types of address quality situations.

The following case studies include:

- Good address from the beginning
- Party just moved and new address not yet on certified list
- Party moved a long time ago
- Question as to who has moved
- Mailing to same name moving in as has moved out
- Address is missing apartment number
- Invalid address still delivered
- One time defect in address presentation
- Legal or policy restraints
- Name variations
- Address variations

Case Study – Good address from the beginning

Description of scenario: This is a typical scenario for a well sourced and maintained address.

1) Address goes through introductory cycle (no move update)
   a) Current CASS-certified software leveraged
      i) Including DPV and LACS^{Link}
2) Piece mailed without incident
3) Name and address rechecked periodically including CARL
   a) Recommended period of checking against CARL is 35 days or just prior to mailing

Results: The results of this mailing are timely and predictable delivery due to the address being deliverable as addressed (DAA). Maximum return-on-investment is possible due to a higher deliverability rate and the value of mail is retained.

Case Study – Party just moved and new address not yet on certified list

Description of Scenario: In this scenario, an individual has just moved to a new location and may be in the process of filing a change-of-address (most likely via a written change-of-address form), but the new address is not yet in the USPS database.

1) Address is on certified list
   a) Address is DPV confirmed as a 'Y' and converted using LACS^{Link}
2) Piece mailed and move recognized by PARS
3) Piece forwarded if appropriate
4) Notification back to CALI owner is automatic
   a) The business entity identifier in the Intelligent Mail Barcode assists in this determination
5) Message digest of move sent to pre-CARL (may already be on CARL)
6) When threshold is met, move is posted on CARL
   a) A sufficient amount of time must pass in order to ensure that this is indeed a legitimately and accurately filed change-of-address.
7) Name and address rechecked periodically via CARL
8) Any other certified mailer with same name/address will match CARL
   a) Recommended action is to process the address using a pre-mailing USPS approved Move Update method

Results: This scenario demonstrates the power of CARL as a method to provide an early warning to certified list administrators that a filed change-of-address has occurred. This early notification benefits not only the actual list administrator for the impacted mailing, but also additional future mailings. Note also that an electronic change-of-address filing could provide an even earlier notification.

Case Study – Party moved a long time ago (more than 48 months)

Description of Scenario: This is a name and address for an individual that moved over 5 years ago and thus their change-of-address information is no longer kept in the USPS databases.

1) Address is on certified list
   a) The name and address are outdated by five years
2) Piece is mailed using the outdated address
3) Piece returned by carrier with no new address
   a) Confirmed as UAA due to Delivery Force Knowledge
4) Notification back to CALI owner is possible
   a) BEI code in the Intelligent Mail Barcode assists with this
5) Message digest of name and old address posted to pre-CARL
   a) This is the SHA value of the name and address **exactly** as they appear on the mailpiece
6) An appropriate threshold of time is met to determine if this is an anomaly or a legitimate UAA issue
   a) If threshold is met, SHA value is posted to CARL with a recommended action to remove the name and address
7) Certified List Administrators check CARL and if a match is found, the name and address are removed due to confirmed UAA

Results: This scenario provides a classic example of removing UAA mail from numerous potential list sources. In this situation, we have a name and address that is confirmed using Delivery Force Knowledge. The recommended action is to remove the name and address from the lists of all certified list administrators as part of the CARL checking process.

Case Study – Question as to who has moved

Description of Scenario: In this scenario, a change-of-address was filed for an individual, but for some reason, some addresses are being matched to a family move and thus UAA is being created.

1) New address is on certified list
   a) This is the new address as is indicated using the appropriate change-of-address process
2) Piece mailed
3) Piece returned by recipient (e.g., individual move coded as family)
4) Notification back to CALI owner is possible
5) Message digest of non-move posted to pre-CARL (e.g., for rest of family)
6) If more pieces arrive, and threshold met, non-move goes to CARL
7) Names and addresses rechecked periodically via CARL

Results: This scenario handles the rare, but possible situation in which a filed change-of-address results in incorrect information being posted, possibly to the NCOA^{Link} database. The result is what appears to the mailers as a legitimately processed Move Update, which unfortunately yields UAA. By posting the SHA value of the name and address to CARL, additional certified list administrators can be made aware of this mistake and the recommended action may be to update their NCOA^{Link} data immediately.

Case Study – Mailing to same name moving in as has moved out

Description of Scenario: A change of address has been filed, but in a bizarre coincidence, the person moving into the old address has the exact same name as the person moving out. Thus, a potential UAA situation is occurring.

1) Address is on certified list
2) Piece mailed and move recognized by PARS
3) Piece forwarded
4) Piece returned by recipient (e.g., this is my name but not my mail)
5) Notification back to CALI owner is possible (but name/address is OK)
6) No post to CARL
7) Perhaps COA should be flagged in NCOA^{Link}

Results: This is an unusual, but potential situation. The benefit of CARL and a List Certification system for this scenario is the advance notification that there is a name and address combination that could result in UAA. The USPS will need to work with the industry to determine the appropriate recommended action on a case-by-case basis.

Case Study – Address is missing apartment number

Description of Scenario: This is a typical UAA name and address where the secondary address information is missing.

1) Address is not on certified list to begin with but may have IMB
2) Piece mailed and deficiency recognized by PARS
3) With Intelligent Mail Barcode signal, name/address can be referred to AEC I and II
    a) CALI owner can be notified later of results
    b) Or lacking IMB signal, nothing occurs
4) Piece delivered by carrier with additional labor costs
    a) Or returned for insufficient address
5) No post to CARL as currently designed

Results: Here the mailpiece has a secondary address, likely residential, that is missing and thus the piece is UAA. The recommended action is to complete the address with the secondary address using either AEC or possibly an industry solution, such as an apartment append.

Case Study – Invalid address still delivered

Description of Scenario: In this scenario, the address has an invalid primary number, or a street address to which the USPS does not deliver

1) Address is not on certified list to begin with and does not DPV confirm
   a) But address may be mailed with IMB and signaling correction request
2) Piece mailed and delivered
   a) Delivery Force Knowledge required for delivery
3) With IMB signal, name/address can be referred to AEC I and II
   a) CALI owner can be notified later of results
   b) Lacking IMB signal, nothing occurs
4) Piece delivered by carrier with additional labor costs
   a) Returned or disposed depending on mail class for deficient address
5) No post to CARL as currently designed

Results: This scenario demonstrates the need for certified list administrators to DPV confirm as 'Y' their addresses prior to mailing. It also demonstrates the importance of leveraging the Intelligent Mail Barcode as a mechanism to the list source of the UAA piece.

Case Study – One time defect in address presentation

Description of Scenario: This scenario assumes an erroneous ZIP Code is generated on all pieces of a given mailing. The problem is related to a production error.

1) Address is on certified list
2) Erroneous ZIP code on all pieces in mailing
3) Deficiency recognized in processing
4) CALI owner can be notified of events with BEI owner
5) No post to CARL

Results: Without the use of the Intelligent Mail Barcode, it would be difficult to alert the list administrator of the problem in a post-mailing situation. Hopefully, this error is caught using either MERLIN or perhaps an inline validation system as part of performance based verification.

Case Study – Legal or policy restraints

Description of Scenario: This scenario details the steps involved when a legal or policy issue exists that prevents the mailer from rendering a complete, correct, and current address onto a mail piece.

1) Address is on certified list
2) Mailing address cannot be changed due to legal or policy reasons
   a) Such concerns are often raised in financial or government related mailings
3) Mailing to party at address results in UAA notice
4) Name/address inquiry opened by Certified List Administrator
5) During 60-day inquiry period name/address remains on list
6) CALI owner and USPS work to resolve inquiry
7) Address can be mailed as certified during inquiry
8) Multiple events could lead to name/address being added to CARL
9) If unchanged, and more UAA generated, remove from certified status
   a) But address can remain in the same mailing

Results: This is an example where the industry and the USPS can collaboratively work to resolve a UAA situation. The USPS can leverage CARL to alert other certified list administrators that the name and address are suspect UAA until resolved. Also, note that mailers can continue to mail the address, but will have to do so at the higher rate in order to cover the additional handling costs to the USPS due to its UAA status.

Case Study – Name variations

Description of Scenario: This scenario covers the process involved when there are name variations for a particular address.

1) Address is on certified list
2) "Margaret Smith" files COA notice
3) Piece mailed and move recognized by PARS
4) Piece forwarded
5) Notification back to CALI owner is automatic
6) Message digest of move posted to CARL (may be already there)
7) Another certified mailer has "Peggy Smith"
8) This will not match to CARL which has "Margaret Smith"
9) Mailing "Peggy Smith" may or may not match PARS
10) If matching PARS, generates UAA and pre-CARL data
11) If threshold later met, is included on CARL
12) Then further mailings to "Peggy Smith" can be flagged

Results: This example illustrates several important components of CARL. First, it shows that CARL creates a SHA value of the name and address **exactly** as it is presented on the mailpiece. Second, it provides industry with an opportunity to differentiate and provide a competitive environment by leveraging their unique databases of nick-name matching technology. Third, by leveraging these databases, UAA can be reduced for not only the actual mailpiece, but all also additional potential matches that further reduce the overall UAA volume.

Case Study – Address variations

Description of Scenario: This scenario presents the process that will deal with variations in address quality where a USPS solution such as LACS^{Link} or AEC is needed to resolve the UAA situation.

1) Address not certified, collected as "12 OLD COUNTY RD"
2) Correct address is "12 FAIRLANE RD"
3) Mail to address as collected is delivered
4) Cannot move address to certified without DPV = "Y"
5) LACS^{Link}, or AEC I and II, could provide the correct address
6) No post to CARL as currently designed
7) Data may stay on LACS or on AEC History File

Results: This is a classic example of leveraging CARL to provide recommended address cleansing to multiple certified list administrators. Here is an example of a LACS^{Link} recommended update.

Roster of Workgroup 104 Participants

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