Address Validation for State Government

A Foundation for Constituent Communication
PUBLIC SECTOR ORGANIZATIONS AND AGENCIES ARE UNDER INCREASED PRESSURE TO DELIVER EXCEPTIONAL CONSTITUENT SERVICE, INSURE REVENUES ARE MAXIMIZED, AND MAINTAIN COMPLIANCE – ALL AT REDUCED BUDGET LEVELS. THE FOUNDATION OF THESE COMMUNICATIONS (TAX BILLS, DMV DOCUMENTS, NOTICES, CHECKS, ETC.) ARE COMPLETE AND ACCURATE CONSTITUENT RECORDS WHICH INCLUDE A DELIVERABLE U.S. POSTAL SERVICE® (USPS®) ADDRESS.

SOME OF THE UNDERLYING CHALLENGES IN ENSURING THAT COMMUNICATIONS REACH YOUR CONSTITUENTS:

- INSURING THAT ADDRESSES (INCLUDING SECONDARY ADDRESS ELEMENTS – APARTMENT, SUITE, ZIP, ETC.) ARE COMPLETE, VALID, AND CONSISTENT WITH INCREASING USPS COMPLIANCE STANDARDS
- HIGH CONSTITUENT MOBILITY, LOCATION VACANCY, AND OPPORTUNITY FOR MIS-DELIVERY IF COMMUNICATION ADDRESS IS NOT CURRENT
- HIGH COSTS / RESTRICTIONS TO CHANGE INCORRECT CUSTOMER DATA ONCE IT IS ACCEPTED INTO AGENCY SYSTEMS
- UNIFORM ORGANIZATIONAL ACCESS ACROSS ALL CUSTOMER DATA COLLECTION POINTS (REAL-TIME)
- REPEATABLE AND AUDITABLE CHANGE PROCESS WHEN NEW DATA IS AVAILABLE (I.E. MONTHLY BATCH PROCESS)
- INCREASING LEGAL EXPOSURE FOR NON-COMPLIANT PROCESSES

THIS PAPER DESCRIBES THE VALIDATION REQUIREMENTS, AGENCY OPPORTUNITIES, AND BEST PRACTICES TO INCREASE ORGANIZATIONAL EFFICIENCIES RELATIVE TO ENTERPRISE ADDRESS MANAGEMENT.
THE FOUNDATION OF ACCURATE CONSTITUENT COMMUNICATIONS AND SERVICES INCLUDES A DELIVERABLE USPS-COMPLIANT ADDRESS

Validating the Constituent

Depending on the agency and application, a key identifier indexes the constituent.

Joe Riley
Parcel # = 44-4-120-022-1773

Michael Price
Driver’s License # = C530-1006-2034

This identifier insures that payments are posted to the correct account, notices have the highest chance of reaching the customer, and that legal exposure is minimized due to mis-delivery and constituent privacy breaches.

As a critical channel for these communications, the USPS insists on an “index” – or unique “delivery point” to be able to deliver the communication quickly and accurately.

John Nichols
USPS Delivery Point = 60543234512

In the above example, the ZIP Code™ is 60543, the +4 or “block face” is coded to 2345, and the last 2 digits of the primary address (512) are 12.

The USPS maintains over 147 million delivery points in its system and the communication success of the organization is based on the accurate and current assignment of delivery points and the validation process. To that end, the USPS provides Pitney Bowes Software extensive data sets that allows our data quality platform to validate constituent addresses.

As with critical agency account indexes, an incomplete or old address incurs higher postage costs, lower delivery rates, and increased rates of returned mail.

Challenges Without Address Validation

Figure 1 depicts some examples of constituent validation failures. For each type of address failure there may be assigned a statistical probability of UAA rate (Undeliverable As Addressed rate). Mail pieces sent to these locations risk mis-delivery exposure, higher postage costs/fines, and/or return mail costs.

Constituent Data: Ryan Thomas
123 Main St, Oslo, IN
Constituent Data Problem: 123 not valid primary
UAA Rate = 27%

Constituent Data: Frank Blaisdell
5600 Butterfield Rd., Downers Grove, IL
Constituent Data Problem: Missing apartment/suite
UAA Rate = 31%

Constituent Data: Mark Manning
44 West Street, DesMoines, IA
Constituent Data Problem: Vacant location
UAA Rate = 99%

Constituent Data: Jacob Olsen
1 Quality St, Lexington, KY 40507
Constituent Data Problem: No longer at address
UAA Rate = 99%

These examples and others shown throughout this document are completely fictitious and are intended for illustrative purposes only, and the photos are licensed stock images. The individual names and specified information contained in these examples have been made up by Pitney Bowes Business Insight. Any resemblance to real people, addresses, etc., is strictly a coincidence.

Figure 1 – Examples of Constituent Validation Failures
Based on customer studies and benchmarks, Pitney Bowes has identified the top communication challenges that stem from:

- Non-confirmed addresses (addresses not assigned to delivery points) – cause the mailer to pay $0.05 – $0.25 more per mail piece. According to the USPS, 27% of non-confirmed addresses are returned to the sender.

- Address missing secondary elements (apartment/suite) – according to the USPS, 31% of mail pieces with addresses missing secondary elements are returned to the sender, or worse yet, mis-delivered to other units in the same building.

- Vacant locations – are valid delivery points – but the USPS is no longer accepting mail to these vacated locations. Mailings to these locations can also represent a high potential for fraud, as criminals may be attempting to divert checks or other sensitive information to un-served locations.

- Old addresses – over 80% of UAA for First-Class Mail® is due to not using the USPS’ Move Update process. These addresses are at risk for mis-delivery and may also expose an agency to postal compliance issues – loss of postal discounts/fines.

**Mitigating the Challenges: Examples**

We will explore 2 examples:

> Secondary address collection (apartment/suite)

> Move Update-new address management

**Secondary Address Collection**

- After primary address validation (Delivery Point Validation (DPV®) effective August, 2007, secondary address failures are the next largest issue in address related delivery failure and increased costs.

- The USPS has published studies that show a 31% return mail rate for mail with “missing” secondary address information. With a published USPS cost over $.50 per piece of returned mail, the USPS may propose secondary address mandates on mailers as a requirement to garner the deepest postal discounts.

- Benchmarking studies of enterprise address records show that between 3-10% of these records are associated with locations where USPS secondary address elements are present. While 3 – 10% is a seemingly small percentage, the loss of even some future postal discounts, combined with an immediate reduction in UAA mail, represents a large potential challenge and opportunity for any government entity.

- The USPS has developed SuiteLink™, a dataset that can append suite information based on the company name of an address record. SuiteLink will be mandated for postal discounts beginning in August 2011.

- Many organizations estimate the cost of a returned mail piece at $3 – 7. The significant costs of returned mail supports a strong business case to address the root cause of related Undeliverable As Addressed (UAA) mail.

Pitney Bowes Business Insight’s current generation of address cleansing solutions return (either in batch or real-time) a DPV “s” when an address has a valid primary address, but is missing or has an invalid secondary address. The USPS has already begun to identify in the DPV data for high rise locations where secondary addresses are required. (See Figure 2 on page 5.)
PUBLIC SECTOR ORGANIZATIONS CAN LEVERAGE NEXT GENERATION ADDRESS VALIDATION PLATFORMS TO INCREASE CONSTITUENT COMMUNICATION EFFICIENCY

<table>
<thead>
<tr>
<th>Example</th>
<th>Original Address Record</th>
<th>Corrected Address Record</th>
<th>Return Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confirmed</td>
<td>840 PARKWAY, LOUISVILLE, KY</td>
<td>840 PARKWAY, LOUISVILLE, KY 40217-2456</td>
<td>DPC=Y*</td>
</tr>
<tr>
<td>Confirmed – Apt/Suite invalid</td>
<td>12 C. Austin Ct. Saugus, MA</td>
<td>12 AUSTIN CT # C SAUGUS, MA 01906-3561</td>
<td>DPC=S***</td>
</tr>
<tr>
<td>Confirmed – Missing Apt/Suite</td>
<td>800 Corporate Lexington, KY</td>
<td>800 CORPORATE DR, LEXINGTON, KY 40503-2785</td>
<td>DPC=D***</td>
</tr>
<tr>
<td>Not Confirmed</td>
<td>50 LANE AVENUE WARWICK, RI</td>
<td>50 LANE E WARWICK, RI 02888</td>
<td>DPC=N**</td>
</tr>
</tbody>
</table>

Figure 2 – Examples of Cleansed Address Records

* 11 digit delivery point assigned gets highest postal discount – presort discount
** 9 digit delivery point assigned get automation discount (10 – 20% more expensive than presort discount)
*** 11 digit delivery point assigned under current CASS rules - gets highest postal discount, however mail piece is at risk to be returned and future rules could mandate less discount for DPC S,D addresses

These return codes, however, are just “indicators” to identify the existence or non-existence of secondary address information. They do not provide correction or creation of secondary address information, so it is critical to leverage these indicators “upfront” or in real-time (at the point of entry) when constituent address is being collected or changed.

These opportunities may present themselves under the following conditions:
• When new constituents apply for services
• When constituents update or change their addresses
• When constituents renew their service

A typical sequence of secondary address collection can be seen in Figure 3 on page 6.

Move Update – New Address Management
• Over 80% of UAA mail for First-Class Mail is due to “old” constituent addresses – #1 cause of UAA.
• Approximately 15% of US citizens move every year – 18% of businesses.
• There are over 44 million change of addresses on file with the USPS. These addresses are validated by USPS through a negative consent process. Commercial and Public Sector organizations leverage this data to maintain contact with their customers.
• USPS Move Update compliance is a requirement for postal discounts – no exceptions.
• Organizations not in compliance with Move Update requirements risk loss of postal discounts and fines. The USPS has put systems in place that help them monitor compliance.
• The USPS has incurred costs of over $1.6 billion for UAA mail every year.
Many state government offices have an opportunity to ensure address quality as they interact with constituents. For many states, the processes require employees to use a “point-of-entry” system to enter the constituents’ addresses. If agencies were to implement interactive correction/validation into their processes before the address was saved, the result would be fewer problems stemming from incorrect information and a potential savings of $1,000 per error in certain cases.

Below is an example of the recommended interactive correction/validation process used to gather a constituent’s address information.

Figure 5 – Example of the recommended interactive process to gather a constituent’s address information.
ADDRESS VALIDATION CAN ENHANCE CONSTITUENT DATA QUALITY AND INCREASE AGENCY PROCESS EFFICIENCY

Constituent permanent change of address records are compiled and securely distributed as the NCOALink® product. This product can only be used with NCOALink-certified applications such as those provided by Pitney Bowes Business Insight. Each Pitney Bowes Business Insight solution is evoked as a batch service and runs against existing name and address files and “matches” and appends new constituent addresses or other return codes such as “moved left no forwarding address”.

Organizations concerned with maintaining current address and constituent records often employ the following:

- Run change of address application every 30 days to identify new addresses.
- Run change of address application at time of mail preparation to reduce returned mail.
- When a new address is detected, verify the change with the constituent via mail or email to direct constituent to a secure web portal for approval of the new address (see Figures 4 and 5 at right).
- When other return codes are found (moved left no forwarding address), attempt to contact constituent via email, web-portal, or other method to obtain a current address.
- The change/update process should be repeatable and auditable for USPS and privacy compliance.

**Improving Agency Processes – Value Model of Address Validation**

State governments can save $1,000,000s of dollars by making address validation and Move Update a standard process for their constituent’s records:

- Average organization cost of failed constituent communication: $3.55 – including print, postage, return mail handling, and organizational service costs.
- 5 mailings/constituent/year.
- 5% of constituents report new/change of addresses per year.
- 3.5% improvement in upfront address validation (DPV confirm, vacant detection) – 27% improvement in delivery for every correct address.
- 4.5% improvement in secondary address collection – 31% improvement in delivery for every correct address.
- 3.5% improvement in batch processing validation – NCOALink, SuiteLink, new vacancy detection.

**Figure 4** – New address presented via Web application to constituent or agency for approval or other actions.

**Figure 5** – Approved addresses are sent for update and an “audit log” is stored.
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Departments of Motor Vehicles agencies* are able to validate addresses in real time for more efficient license and automobile registration processing. A comprehensive address validation process also allows DMV's to:

- Determine if registrants have moved since their last renewal.
- Identify last address location of taxes paid by a constituent.
- Identify and locate registered criminals.

Departments of Labor provide real-time address validation to the Federal Information Processing Standards (FIPS) place and municipal county boundary to ensure that proper federal funding is distributed based on exact coordinates and not just zip code data.

Health and Human Services know the most efficient time to ensure postal deliverability is when the Medicaid beneficiary commits. A Medicaid Management Information System (MMIS) that validates addresses in real-time ensures that only correct and deliverable addresses are accepted into the system thereby reducing errors and operating costs.

Welfare and Social Service agencies are able to prevent fraud by ensuring citizen receipt of critical communications such as check disbursements.

* $500,000+ was the saving related to improved address quality for a Department of Motor Vehicles that Pitney Bowes Business Insight partnered with in 2008.
COLLECT BETTER CONSTITUENT DATA UPFRONT AND MAINTAIN CURRENT ADDRESS INFORMATION FOR CONSTITUENTS VIA CLIENT, WEB AND APPLICATION ACCESS

Solution Best Practices

Leading public sector organizations and agencies have developed a framework (see Figure 6 at left) to offering address validation to enhance constituent data quality. Key components of this best in class reference model are:

- Service Oriented Architecture (SOA) that provides access to all services required by the organization and agencies – agency applications, web (internal and external), and associate.

- Validation of address records, matching against intra-agency and 3rd-party databases (such as constituent single view OFAC, OFSI, Bank of England, etc), location services (geocoding for tax jurisdiction assignment, insurance, etc.), and Intelligent Mail® tracking service.

- Appropriate access for real-time, batch, and Software-as-a-Service (cloud) applications.

- Publish and subscribe for user access and security.

- Centralized administration, configuration, and reporting to keep support costs low.

Conclusions

We have seen how state government agencies can leverage next generation address validation platforms to:

- Increase constituent communication efficiency

- Increase agency process efficiency

- Be compliant and reduce exposure

We have examined a few examples of how these platforms can be used to collect better constituent data upfront and maintain current address information for their constituents while balancing their need for change restrictions.

Finally we have explored cost efficiency models or opportunities and supporting technology reference models.

Recommendations

- Examine new address collection process and determine all points of possible collection.

- Deploy client, web, application access for complete validation at these points.

- Use all current USPS products via a user interface that encourages collection of all required customer elements.

- Discourage “over-rides” of address validation that undermine this collection.

- Deploy an ongoing monthly-batch validation processes against constituent data.

- Develop repeatable and auditable business processes for these batch validation outcomes – “what do I do if I detect a new address, vacant location, or address conversion?”

- Insure and be able to prove that you have taken every reasonable step to communicate with your constituent.

- Deploy a centralized administrative platform to insure current data and services are available to all organizational users.
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About Pitney Bowes Business Insight’s Solutions for Government

Information is Power. Hundreds of state and local agencies use Pitney Bowes Business Insight solutions.

We provide information to citizens when and where they need it. We have worked closely with government entities – worldwide and at all levels – who need to modernize and enhance the value of services they provide to citizens and business, to improve how they:

• Service Constituencies
• Cut Costs
• Deliver eGovernment Solutions
• Support Federal Mandates

Pitney Bowes Business Insight delivers industry-leading technologies and solutions that support the most basic and critical functions of state, regional, and local government, including:

• Health and human services
• Law enforcement, public safety and security
• Tax revenue and collections
• Eligibility and enrollment applications
• Courts and justice systems
• Registration and permitting
• Regulatory compliance and enforcement
• Motor vehicle departments

Better Information is the Key to Success

Industry-Proven Core Technologies

Pitney Bowes Business Insight has been delivering government technology solutions for more than 20 years. Our software solutions have steadily evolved to meet the demands of an ever-changing public sector environment – thereby enabling our clients to better understand and connect with their citizens. By integrating core capabilities in location intelligence, customer data quality, document management and mailing efficiency, we provide agencies with the tools needed to increase operational efficiency, reduce costs and improve constituent communication services.

Increase Operational Efficiency and Improve Communication

The Pitney Bowes Business Insight suite of solutions deliver functionality to help support critical customer communications and business processes. Our best-of-breed and end-to-end solutions provide a unique way for organizations to maximize control, flexibility and cost efficiency.

Mailing Efficiency

Pitney Bowes Business Insight solutions enable agencies to maximize postal discounts by standardizing addresses, validating postal codes and presorting, thereby ultimately reducing return mail costs for significant savings. By using these applications, agencies ensure the integrity of duplicate addresses, and accurate, on-time delivery of vital communications.
Constituent Data Quality
Data quality is essential to effective citizen-facing technologies and outreach programs. Pitney Bowes Business Insight data quality solutions integrate data streams from disparate data sources regardless of data type, help ensure data quality and integrity by standardizing and validating constituent address information and enrich data with valuable location, demographic and business-oriented intelligence. Pitney Bowes Business Insight solutions identify and consolidate duplicate records to obtain a more accurate view of information.

Document Composition
Pitney Bowes Business Insight enables state and local agencies to support eGovernment initiatives, as well as the Paper Work Reduction Act, by creating personalized communications for multi-channel delivery. Agencies can personalize letters, notices, reports, tax bills, applications and contracts for on-demand printing and distribution. This one-stop, single source solution creates dynamic personalized documents that speak to the unique needs of constituents.

Document Archiving
Whether integrating into a document composition tool or not, Pitney Bowes Business Insight supports eGovernment initiatives by providing agencies with advanced government to constituent (G2C) and government to business (G2B) online account management, e-billing and customer care solutions. Our interactive document vault solutions integrate e-presentment, e-payment and collaborative e-services.

Location Intelligence
Pitney Bowes Business Insight location intelligence solutions provide government agencies with the most accurate geographic intelligence through four, distinct channels – interoperability, economic development, emergency planning and asset management. By combining point and parcel technology with street level data, our applications pinpoint locations by geocoding not only to the street level, but to the individual parcel and target point within that parcel. This high-level of accurate address determination allows agencies to perform spatial and predictive analysis. This analysis is vital to successfully planning for both internal and external location-based service offerings. With an accurate, current and wide-coverage point and parcel data set, our location intelligence solutions empower agencies to be more efficient, more responsive and more effective through the use of location-based data.